



*City of Bristol
City Council*

*INFORMATION TO ACCESS THIS MEETING
Public Works is inviting you to a scheduled Zoom meeting.*

*Topic: Flood and Erosion Board
Time: Sep 9, 2025 05:30 PM Eastern Time (US and Canada)
Join Zoom Meeting
[https://bristolct-
gov.zoom.us/j/89658644099?pwd=IF5FJJ7Ak9h57ff8kcXfedUZW27r.](https://bristolct-gov.zoom.us/j/89658644099?pwd=IF5FJJ7Ak9h57ff8kcXfedUZW27r.)*

1

*Meeting ID: 896 5864 4099
Passcode: 671118*

A special meeting of the Flood & Erosion Control Board will be held on September 9, 2025 at 5:30 PM in City Hall Council Chambers, 111 North Main Street, Bristol, CT.

1. Call to Order
2. Concerns and Petitions from the Public
3. Meeting Minutes of the Previous Meeting
 - a. September 2023 Meeting Minutes
4. Climate Resilience Study - CT DEEP Grant Update
 - a. Resiliency Grant
5. FEMA Insurance Map Update
 - a. NBE1 FEMA Mapping and Flood Zones
6. Water Quality - MS4 Permit Update
 - a. BPW MS4 Steering Comm
7. Pequabuck River Water Guage

- a. Water Gauge Replacement
- 8. Adjournment

PER ORDER OF THE CHAIRPERSON

Minutes of the Flood and Erosion Control Board Regular Meeting
Monday September 11, 2023
6: p.m. Board of Education
With Zoom Access

Members Present: Mayor Jeffrey Caggiano
Council Member Jacqueline Olsen
Council Member Erik Rosengren
Council Member Sebastian Panioto

Staff Present: Raymond A. Rogozinski, Director of Public Works
Nancy Levesque, City Engineer
William Stango, Civil Engineer
Anthony Lorenzetti, Temporary Civil Engineer

Mayor Caggiano called the meeting to order at 6:00 p.m. There was a recitation of the Pledge of Allegiance and a moment of silence for recognition of the Anniversary of September 11.

1. Flood and Erosion Previous Meeting Minutes

Motion: made by Council Member Olsen and seconded by Council Member Panioto to accept as presented and place on file. Motion passed.

2. Review/Update of City-Wide Flooding 2023

The Director of Public Works reviewed the DPW Flooding Memo and the City of Bristol ordinance. He gave a review of the types of storms we get in our area. There was a review of the biggest areas of concern which included George Street, Park Street as well as Divinity Street. There were numerous driveways where the water went above the apron which caused flooding to garages and a few basements. There were issues with Middle Street/King as well as Burlington Ave, which are state roads, and Public Works has been in touch with the state regarding those areas.

The Director also stated that the Inland Wetland Officer walks the areas in Bristol that have wetlands during the year for review of the area.

The Council Members asked questions regarding various streets and also stated the many residents were pleased with the response from the Public Works Department during the storms.

3. Review/Update FEMA Proposed Revisions to City Flood Insurance Rate Maps (FIRM) and Flood Insurance Study (FIS)- Dated June 29.

The Director explained the new FEMA mapping and City Flood Insurance Rate Maps. New aerial photographs and topography were done to determine water surface elevation. FEMA also added new zones to the mapping. Specifically, the new A zones. This means that there may be properties that were in a flood zone and now may not be, as well as those that were not in a flood zone may now be. There is an appeal process to the new mapping, where the resident would have to hire an engineer and provide proof that the area was designated incorrectly. As the maps get more accurate, it will be more difficult to appeal the zone your property was placed in.

Tony Lorenzetti gave a power point presentation of the history of FEMA mapping and viewed maps showing some of the changes made by the updated mapping. These maps will be available if anyone wants them.

Council Members asked if notification letters will be sent to residents if their flood zone was changed and the director replied that once confirmation from FEMA that all mapping changes have been completed. This should be sometime in October or November.

4. CT DEEP – Climate Resilience Fund Grant Award

The city has received a Climate Resilience Grant for \$250,000.00 from CT DEEP to assist residents to become more resilient to flooding. An engineering analysis will be done of the Pequabuck River and Coppermine Brook to determine an engineering solution for flooding. It will also be used to provide community outreach to residents advising them of insurance requirements, floodplain limits and what is typically covered by flood insurance.

5. Adjournment

Motion: made by Council Member Olsen and seconded by Council Member Rosengren to adjourn at 7:00. Motion passed.

6. Signature

Raymond A. Rogozinski, P.E.
Director of Public Works



Department of Public Works | 860.584.6125

MEMORANDUM

DATE: August 28, 2025

TO: Mayor Jeffrey Caggiano
Flood Erosion Control Board
Board of Public Works

FROM: Raymond A. Rogozinski, P.E., Director of Public Works

RE: CT DEEP Climate Resilience Grant Study

The City has received a grant in the amount of \$250,000 (3023011-432153-25G26) from CT DEEP to perform a Climate Resilience Study in the City. The purpose of the grant is to address flooding in the Coppermine Brook and Pequabuck River watersheds. The City has hired the engineering firm Stantec Inc. to perform the study in accordance with the attached scope within the RFP.

As indicated in the RFP, the scope of the study consists of a review of the previously performed Pequabuck River Regional Study conducted with Farmington, Plainville and Plymouth along with the Coppermine Brook Study. In addition, the consultant will utilize revised FEMA mapping scheduled to be authorized and assessments of previous storm flooding. A summary of the complete scope of work of the study is provided below:

1. Present potential flood remediation options, including creation of a no build flood plain
2. Evaluate and rank potential mitigation projects including widening of rivers and demolition of homes
3. Develop a community emergency plan
4. Conduct community-based meeting to define level of flooding
5. Provide public education
6. Evaluate and prepare sediment removal plans
7. Recommend revisions to storm water drainage standards

Based on previous studies it is not anticipated that the Climate Resilience Study will identify a single or series of flood control projects that would address flooding throughout the City that would be acceptable to the community and cost effective. The study will however, provide an action plan



Department of Public Works | 860.584.6125

including public education outlining available resources, flood plain cost reduction measures, City maintenance requirements and proposed regulations to mitigate future flooding.

The challenge with obtaining flood mitigation grants, that would fund the design and construction of flood control and drainage projects within the City is the level of flooding experienced within the City. During large storm events public infrastructure and residential properties are impacted and which impact residents, however the flooding does not result in flooding of first floors. Flooding within the City, in general is limited to roadways and basements which per FEMA is not classified as substantial damage. With that said it is imperative that the City provide residents and long term strategic and public education as to available resources.

The Resiliency study consultants Stantec are scheduled to attend the Flood Erosion Control Board a to presentation/ update of the proposed work and provide the Board an opportunity for the Board to address flood concerns to the consultant. In addition, please feel free to contact me with any questions at 860-584-6113.



Request for Proposals 2P25-016

The City of Bristol is accepting proposals for the following:

Consultant/Engineering Services for Climate Resiliency Flooding/Storm Drainage

All submissions must be made in accordance with the specifications supplied by

The City of Bristol
Purchasing Department
111 North Main Street
Bristol, CT 06010

Submissions will be received until **1:00 pm, February 26, 2025.**

Roger D. Rousseau
Purchasing Agent, City of Bristol
Tel (860)584-6195
rogerrousseau@bristolct.gov
<http://www.bristolct.gov/bids>

City of Bristol CT
Request for Proposals 2P25-016
Consultant/Engineering Services for Climate Resiliency Flooding/ Storm Drainage

The City of Bristol is seeking to prepare its community for climate resiliency with regard to flooding in vulnerable population areas, and is accepting proposals for assistance in educating and preparing the community for climate resiliency, and preparation of engineering solutions, via funding provided by the CT Dept of Energy and Environmental Protection ("DEEP").

Proposal submission documents are available at no charge by downloading from the City of Bristol web site via the following link:

<https://www.bristolct.gov/Bids.aspx?BidID=1368>

A non-mandatory pre-submission meeting will be held on February 12, 2025 at 9:00 am in Meeting Room 3-1 at Bristol City Hall, 111 North Main Street, Bristol CT 06010.

Proposal submissions will be accepted by the Purchasing Department until **February 26, 2025 at 1:00 pm**; submissions received after this date and time will not be considered. The City reserves the right to waive any informalities in any submission, to reject any and/or all submissions, and to accept the proposal that in its judgment is in its best interest. Interested firms are required to submit one original copy via digital media of the proposal to the Purchasing Department no later than the date and time noted above. Submissions may be made via email, shared file service, or USB drive; the City does not assume responsibility for failure of submissions to be received by the City by the date and time noted above.

The awarded firm will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, gender, or national origin.

Roger D. Rousseau, Purchasing Agent
City of Bristol Purchasing Department
111 North Main Street
Bristol CT 06010
Tel. (860) 584-6195
Email rogerrousseau@bristolct.gov
<http://www.bristolct.gov/bids>

City of Bristol, Connecticut
RFP 2P25-016
Consultant/Engineering Services
for Climate Resiliency Flooding/Storm Drainage

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City of Bristol CT

RFP 2P25-016 Climate Resiliency

Links to materials noted in Section 1.4 Resources Available

- 01 <https://www.bristolct.gov/DocumentCenter/View/48611/2P25-016-Bristol-DCRF-Application-TRACK-1>
- 02 https://www.bristolct.gov/DocumentCenter/View/48608/Pequabuck-Final-Summary-Report_09_14_15-No-Appendix
- 02 https://www.bristolct.gov/DocumentCenter/View/48609/Pequabuck-Appendix_09-14-2015
- 03 <https://www.bristolct.gov/Admin/DocumentCenter/Document/View/5507/Coppermine-Study>
- 03 <https://www.bristolct.gov/Admin/DocumentCenter/Document/View/5506/Coppermine-Study-Indexes>
- 04 <https://bristol.mapxpress.net/>
- 04 <https://ct-bristol2.civicplus.com/DocumentCenter/View/41436/FEMAMap466?bidId=>
- 04 <https://ct-bristol2.civicplus.com/DocumentCenter/View/41437/FEMAMap467?bidId=>
- 05 <https://experience.arcgis.com/experience/e492db86d9b348399f4bd20330b4b274>
- 06 <https://www.bristolct.gov/DocumentCenter/View/48063/Inland-Wetlands-Proposed-Amendment-to-Regulations-and-City-Wetland-Map>
- 07 <https://www.bristolct.gov/DocumentCenter/View/19065/Zoning-Regulations---effective-51324>
- 08 <https://ct-bristol2.civicplus.com/DocumentCenter/View/496/Wetlands-Regulations-amended-to-1209?bidId=>
- 09 <https://ct-bristol2.civicplus.com/DocumentCenter/View/6668/Bristol-POCD-Effective-063015-RFS?bidId=>
- 09 <https://ct-bristol2.civicplus.com/DocumentCenter/View/481/1996-Subdivision-Regulations-amended-to-11513?bidId=>
- 10 <https://ct-bristol2.civicplus.com/DocumentCenter/View/498/Flood-Control-Ordinance?bidId=>
- 11 <https://www.bristolct.gov/DocumentCenter/View/48612/2P25-016-Drainage-and-Flooding-Update-2024-07-08>
- 12 <https://www.bristolct.gov/DocumentCenter/View/48610/2P25-016-2018-03-27-Flood-and-Erosion-Board>



**Request For Proposals
City of Bristol, Connecticut**

2P25-016

**Consultant/Engineering Services
Climate Resiliency Flooding/Storm Drainage**

I. PROJECT SPECIFICATIONS

I.1 INTRODUCTION

The City of Bristol has received funding for a CT DEEP Resilience Fund Grant. The objective of the grant is to determine if there are engineering solutions that will mitigate flooding within the City, in particular, areas of vulnerable population located with the City's "opportunity zone" census tract 4061, as well as census tracts 4057, 4052, and 4060.01. In addition to engineering solutions, the City sees community outreach and public education as a critical task in addressing the community's climate resiliency as it relates to flooding.

The City of Bristol (the "City") is accepting proposals from firms to assist in educating and preparing the community for climate resiliency, as noted within this document and within the City's grant.

I.2 BACKGROUND

The City has participated in comprehensive studies for both the Coppermine Brook and the Pequabuck River, however, neither study proposed projects that would substantially reduce water surface elevations or reduce flooding. The studies did recommend the creation of water storage areas. However, given the size of the watershed, the proposed storage areas would have resulted in lowering flooding less than 0.2 ft., and the lower water surface elevations would not have been sustained to populated areas. The lack of a previously identified engineering solution for City flooding may be a result of consultant's determination that implementing various engineering solutions to mitigate flooding were too costly or not permissible, however, the task as part of this RFP is to determine a solution if at all possible.

The City is receptive to implementing a number of potential engineering flood mitigation measures, however, the focus should be increasing storm water conveyance, dredging and widening streams/rivers, increasing pipe size, or acquisition of properties. The City understands permitting and cost challenges associated with dredging/widening streams and rivers, but sees such projects as a long-term planning and public education process. The City believes that the acquisition of properties prone to flooding is a viable mitigation measure, and sees the potential identification of properties as part of the work associated with this RFP, along with a preliminary evaluation of BCAs, and the long-term economic impact of the City purchasing a house within the City. For example, what is the final impact if the City purchased a typical 3-bedroom house and the property became open space, considering education costs and loss of tax revenue?

Although the objective of the grant is to determine if there is an engineering solution, the primary focus of the study is not anticipated to be on engineering hydraulics. It is not the intent of the City to redo or replicate the previously performed Pequabuck River or Coppermine Brook studies.

Instead, the grant is focused on resilience planning, especially natural hazard mitigation planning. This could include things such as modifications to City land use regulations, with a long-term goal of removing structures; focusing on ways to protect City assets, especially storm water systems, during flood events; developing plans to offset isolating events such as road blockages during storms; addressing drainage issues, some of which can involve revisions to Zoning, Planning, and Inland-Wetland regulations and flood and erosion controls, and street ordinances; and educating the public about other mitigation efforts that businesses and homeowners can make to offset the impact of flooding.

The City sees public outreach and education as an integral part of the work associated with this RFP. If it is determined that there are no viable engineering solutions, or if implementing the proposed measures will take an extended period of time to mitigate flooding within the City, the City does not want to provide “false hope.” Rather, work associated with the RFP shall provide realistic, practical measures to mitigate the impact of flooding, such as: insurance requirements/provisions, utility location, flood monitoring measures, and flood insurance reduction methods. Public outreach shall also include measures and agencies that are available for assistance after a flooding event. Once again, the purpose of public education is not to provide “false hope”, the intent would be to provide guidance associated with Presidential Declared Disasters and state assistance available for various flood events (if any).

Work associated with this RFP shall also include the development of community emergency planning to address roadway closures that occur during flooding events, such as the closure of King St, Mix St., CT Route 6 that isolates the northeast section of the City, and the common closure of East Main St east of Forestville. The selected consultant shall also provide an evaluation with recommendations to revisions (if any) to current City land use drainage regulations (Zoning, Planning, Inland Wetland, and City Street Ordinances). For example, current regulations require detention to prevent increases of the peak rate of runoff, however, they do not require LID measures, and City storm drainage is sized for 25-year storms. The selected consultant shall also provide guidance to the long-term maintenance of streams by the City to reduce flooding, which shall include permit requirements (if any).

The City is concerned with flooding that occurs during both high rainfall events (in inches) that occur over a 24 hr. storm period, and high intensity storms that occur over a short period of time. Some of the specific areas of concern consist of the following:

1. East Main St east of Forestville
2. Central St at the Pequabuck River
3. Frederick St
4. Broad St at Todd St
5. Farmington Ave at Mix St including the Coventry Rd & Vincent Rd area
6. Sharon St
7. Collins Rd
8. Madison Dr
9. King St at Bristol Eastern High School
10. West End (intersection of CT Route 72/69)
11. Jacob St
12. Terryville Rd west of Waterbury Rd
13. Hardwick Rd

It should be noted that flooding in Bristol generally does not extend above the first-floor elevation. However, flooding severely impacts the quality of life within the City with damage to utilities/personal property located in basements, and impacting property access.

I.3 SCOPE OF SERVICES

Present potential remediation options that may include but not limited to the creation of a no-build flood plain.

Evaluate and rank potential mitigation projects be based on multi-benefits such as creating passive recreation/ park areas along the river (after purchase and demolition of frequently flooded homes), promoting pedestrian/ bike use, and addressing environmental justice concerns.

Develop a community emergency plan to address roadway flooding that cuts off and isolates sections of the City during large storm events. Leaders of the City's Police, Fire, and Emergency Management Departments would participate in plan development along with input from the community.

Conduct community-based meetings to define in detail level of flooding and provide public education as to the available FEMA, State, and local resources available to residents after flooding events.

Provide public education to residents of the flood-prone areas to assist in the development of individual action plans. These plans would address evacuation routes, alternate housing, moving of vehicles, and plans for the retention of important papers (e.g. insurance policies and bank records).

Evaluate and prepare sediment removal plan for the Pequabuck River, Coppermine Brook and the unnamed brook that crosses Mechanic St, Andrew St, West Washington, Stonecrest Dr, Carpenter Ave, and Louisiana Ave. The sediment removal plan shall be based on available mapping and field inspections and shall include identification of areas of sediment removal, quantity, required environmental permits and recommunication to acquire property rights and estimated cost.

Develop a strategy for identification of potential property acquisitions that would alleviate the impact of flooding or mitigate flooding (in particular, properties along the Pequabuck River and Coppermine Brook).

Develop stormwater design standards for use by the City in construction of storm sewer improvements.

Develop strategies for consistent application of Low Impact Development ("LID") measures. Work shall include an analysis of potential LID impact, reduction of flooding associated with LID implementation on currently undeveloped and anticipated rate of Bristol developed properties.

Review and make recommendations for revision to the City of Bristol flood ordinance.

I.4 RESOURCES AVAILABLE

The City has available the following materials for review:

1. DEEP Climate Resilience Grant Application
2. Pequabuck River Study
3. Coppermine Brook Study
4. City GIS mapping with layers for City storm drainage, current wetlands, & FEMA flood plan map
5. FEMA proposed (pending) revised map
6. City proposed (pending) wetland map revisions
7. Bristol Zoning Regulations
8. Bristol Inland Wetland Regulations
9. Bristol Planning Regulations
10. City Street Ordinances
11. Summary of Flooding July 16, 2023 dated July 11, 2024
12. Flood Erosion control Board – Resident Assistance Programs

I.5 PROJECT SCHEDULE

The following is the proposed schedule, primarily relevant to the selection process. Please be advised that as part of your firm's proposal, it is anticipated that a project schedule will be included, using the following as a general guideline, incorporating any adjustments that your firm may feel to be appropriate to successfully complete the project.

Date of RFP Issuance	January 28, 2025
Pre-submission site visit	February 12, 2025
Due date for submissions	February 26, 2025
Recommendation for Award	April 8, 2025

There will be an opportunity to discuss the project with City staff on **February 12, 2025 at 9:00 am**. Interested firms are asked to report to Meeting Room 3-1 within Bristol City Hall, located on the third floor at 111 North Main Street, Bristol CT.

The meeting will additionally be accessible via Zoom:

<https://bristolct-gov.zoom.us/j/88240621294?pwd=aclarJafbhlGxVQFeNGaWK0r9IWxTh.1>

II. SUBMISSION REQUIREMENTS

II.1 SUBMISSION DUE DATE

Submissions will be accepted by the City of Bristol Purchasing Department until **1:00 pm, February 26, 2025**. Submissions received after that time will not be considered. Submissions may be withdrawn 120 days after opening if no award has been made.

The City may invite a short list of responding firms for an interview based upon its review of submissions.

Unless otherwise indicated, submissions are assumed to be valid for one hundred twenty (120) days from the date that Submissions are due.

II.2 DIRECTIONS FOR WRITTEN SUBMISSION

Interested firms are required to submit **one original copy via digital media** of the proposal to Roger Rousseau, Purchasing Agent, no later than the date and time noted above. Submissions may be made via email, shared file service, or USB drive; the City does not assume responsibility for failure of submissions to be received by the City by the date and time noted above. Submittals shall consist of the following:

- a. A transmittal letter signed by the appropriate officer of the firm offering the proposal and certifying that the proposal and any cost projection included will remain in effect for 120 days after the due date.
- b. A concise and complete description of the work to be performed, including:
 1. An explanation of your firm's understanding of the project, its approach to the work, the key issues to resolve and the level of detail that can be accomplished for the work within the available time.
 2. A detailed work program and time schedule for the project.
 3. A list of personnel who will be assigned to the project, including resumes for professionals expected to provide at least 20% of the person hours on the project. Support staff contracted by your firm for this project should additionally be included for review and consideration. List shall include alternate lead person in the absence of the assigned lead person, or methodology for providing continuity of services due to temporary absence of the lead person.
 4. A description of similar projects which your firm has been involved in, including references.
 5. A summary of your firm as outlined in Section II.3 of this document. Please note that joint ventures are acceptable for submission.
- c. A fee schedule for the services, and/or method for fee schedule development for services to be provided (e.g. hourly rate structures with potential staffing requirements). Please note that evaluation and subsequent award of a resultant contract is primarily based on qualifications and not based on fee schedule; however, the cost for your firm's services is one of the criteria outlined in this document. If your firm is selected for an interview, and as a result of the interview certain clarifications and adjustments need to be made to the fee schedule submitted, your firm will be allowed to adjust the fee schedule submitted, if so directed by the City. Please note that travel between the consultant's offices and those of the City will not be considered reimbursable.
Please note that submission of fees shall be made via a document separate from the qualifications/scope, to permit review of fees subsequent to review of all other aspects of the proposal.

II.3 VENDOR INFORMATION

A. Vendor Overview

Please provide the following:

- The name and location of your company, including the office location that will be serving the City.
- A brief general description of your business.
- The number of years your company has been in business.
- Is your company a subsidiary of another corporation? If so, what is the name of the parent company?
- The number of personnel employed by your company (please include the number of staff dedicated to provide requested services).
- The primary line of business of your firm.

B. Client Base

Provide specific reference information for three clients you have served, relevant to the work proposed, to include:

- Client name and location
- Starting date of service and completion date
- Contact name, title and telephone number

The references must be relevant to service in the last forty-eight (48) months, and shall include specific details on how the project represents a project of similar scope. Information on your firm's specific role must be included.

II.4 EVALUATION CRITERIA

Evaluation will be based upon the written submittals and selected presentations and interviews. The factors, which will be evaluated, include the following:

1. The proposed staffing plan and specialized experience of the individual(s) or firm(s) and its (their) assigned personnel.
2. The firm's understanding of and approach to the project.
3. Capability to work collaboratively with the City, the State of Connecticut, community groups, and other parties associated with the project.
4. The firm's experience in resiliency planning for a similar project, as may be relative to this project.
5. The firm's ability to effectively communicate to the community on behalf of the City.
6. The firm's ability to assess reasonability of costs associated with potential mitigation efforts.
7. The content of the firm and its consultants, support staff, etc. and their ability to work effectively together and with the City.
8. Clarity, organization, and effective presentation of submittal.
9. Current and anticipated workload.
10. Review of references listed.
11. Proposed fee schedule or fee schedule methodology, received subsequent to initial submission. Please note that evaluation and subsequent award of a resultant contract is primarily based on qualifications and not based on fee schedule; however, the cost for your firm's services will be a factor.

The City expects to invite a short list of responding firms for an interview based upon its review of the written submissions.

Final recommendations regarding award of contract(s) for services will be made after the City and firm(s) have negotiated reasonable fee schedule(s) for services to be provided, and have concurrence on the methods to be used for payment for services rendered.

II.5 ADDENDA

If it becomes necessary to revise any part of this request or if additional data is necessary to enable interpretation of provisions of this document, revisions or addenda will be provided to all prospective firms who receive this document; such revisions or addenda will additionally be posted on the following website:
<http://www.bristolct.gov/bids>

This document includes an acknowledgement page; this page must be faxed back to the Purchasing Department, to ensure proper notification of changes to the published documents. The City of Bristol does not assume responsibility for any vendor that does not receive revisions or addenda, where the vendor has not acknowledged receipt of any portion thereof.

Questions regarding this document should be referred to Roger D. Rousseau at (860) 584-6195 or at rogerrousseau@bristolct.gov.

A summary of all questions and answers will be made available to each firm if they might influence the award of the contract.

III. CONTRACT CONSIDERATIONS

III.1 EQUAL OPPORTUNITY – AFFIRMATIVE ACTION

The successful firm shall comply in all aspects with the Equal Employment Opportunity Act. A firm with 15 or more employees shall be required to have an Affirmative Action Plan which declares that the contractor does not discriminate on the basis of race, color, religion, gender, national origin or age, and which specifies goals and target dates to assure the implementation of equal employment. A firm with fewer than 15 employees shall be required to have a written equal opportunity policy statement declaring that it does not discriminate on the basis of race, color, religion, gender, national origin or age.

Findings of noncompliance with applicable State and Federal equal opportunity laws and regulations could be sufficient reason for revocation or cancellation of this contract.

III.2 INDEMNIFICATION

The awarded firm agrees to indemnify, defend, and save harmless, the City of Bristol, as well as its officers, agents and employees from any and all claims and losses to the extent caused by the negligent act, error or omission of the awarded firm resulting from the performance of this contract, except to the extent caused by the negligent acts of the City of Bristol or its officers, agents or employees.

The City, as a sovereign government, cannot indemnify businesses or individuals.

III.3 INSURANCE

Prior to the execution of any contract, the City of Bristol requires that any awarded contractor providing materials, equipment or services to the City, must provide to the City a certificate of insurance (Acord or other

approved format) naming the City of Bristol and the State of Connecticut as additional insured, for the following:

- General liability (including completed operations coverage) in the amounts of \$1,000,000 Bodily Injury/Property Damage coverage per occurrence, and \$2,000,000 general aggregate coverage.
- Automobile Liability in the amount of \$1,000,000 (combined single limit), Property Damage and Bodily Injury coverage.

In addition to the above, the awarded contractor shall provide a certificate of insurance in the minimum amounts as specified herein.

- Professional Liability, in an amount not less than \$500,000 per occurrence and \$2,000,000 aggregate.
- Worker's Compensation as defined in the Connecticut General Statutes.

Umbrella coverage for all of the above, in an amount not less than \$5,000,000.00.

All above said insurance shall be provided at the sole expense of the contractor with an insurance company which is licensed to do business in the State of Connecticut, and which shall have a minimum AM Best rating of not less than "A". Any subcontractor to a contracted firm shall be likewise covered, and shall furnish certificates of coverage acceptable to the City before starting work.

The awarded firm shall maintain insurance coverage until the expiration of the statute of limitations. In the event there is no statute of limitations specifically applicable to this project, the awarded firm shall maintain coverage for a reasonable period after the date of substantial completion of the project as agreed to by the City and the awarded firm.

Please note that the City of Bristol will directly secure Builders Risk coverage for the project, at its own expense.

III.4 INVOICING AND PAYMENT

Invoices shall be paid promptly by the City unless any items thereon are questioned, in which case payment will be withheld pending verification of amount claimed and the validity of the claim. Standard payment terms are Net 30 Days from receipt of properly executed invoice(s). If your firm submits a proposal that includes payment schedules based on the completion of designated phases, those stages must be clearly outlined in your proposal. The City cannot make payments for "execution of contract" (payments due upon contract signing).

III.5 AWARD CONSIDERATIONS

The City may reject any or all submissions for such reason as it may deem proper or for its sole convenience. The City reserves the right to not accept any submissions. In acceptance of submissions, the City will be guided by consideration of the interests of the City. The City also reserves the right to negotiate further with one or more of the firms as to any features of their submissions and to accept modifications of the work and price when such action will be in the best interests of the City.

Firms selected for interview will be provided with the content of the interview panel; the selected firms will be required to submit affidavits relating to their relationship(s) with members of the panel. The names of interview committee members will be released solely for the purpose of preparation of affidavits; the selected firms shall not directly contact the panel members prior to immediately following the interview process.

The individual signing this submittal hereby declares that no person or persons other than members of his/her own organization are interested in this Project or in the contract proposed to be taken; that it is made without any connection with any other person or persons making a submission for the same work and is in all respects fair and without collusion or fraud; that no person acting for or employed by the City of Bristol is directly or indirectly interested therein, or in the supplies or works to which it relates or will receive any part of the profit or any commission there from in any manner which is unethical or contrary to the best interests of the City of Bristol.

Unless otherwise noted, submissions received in response to this document, including proposed fee schedules if applicable, are assumed to be valid and binding for one hundred twenty (120) days from receipt of the submission. If award is not made within such time, the submission can be deemed to be either no longer valid, or can be extended with mutual consent of the City and the firm making submission.

Any contract resulting from this solicitation shall be governed by the laws of the State of Connecticut.

Documents/reports/data become property of the City of Bristol.

III.6 TERMINATION

A. Termination by the Consultant

If the City fails to make payment as provided in Section 5.1 for a period of 30 days, the Consultant may, upon seven additional days' written notice to the City, terminate the Contract and recover from the City payment for work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

B. Termination by the City for Cause

The City may terminate the Contract if the Consultant:

1. Repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
2. fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Consultant and its Subcontractors;
3. repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of a public authority; or
4. Otherwise is guilty of substantial breach of a provision of the Contract Documents.

When any of the above reasons exists, the City may, without prejudice to any other remedy the City may have and after giving the Consultant seven days' written notice, terminate the Contract and take possession of all materials prepared by the Consultant relative to this contract and may finish the work by whatever reasonable method the City may deem expedient. During the seven day notice period, the Consultant shall have the option to present to the City a plan to remedy the notice for termination for cause, which may be accepted by the City at its sole discretion. Upon request of the Consultant, the City shall furnish to the Consultant a detailed accounting of the costs incurred by the City in finishing the work.

When the City terminates the Contract for one of the reasons stated above in this section, the Consultant shall not be entitled to receive further payment until the work is finished.

C. Termination by the City for Convenience

The City may, at any time, terminate the Contract for the City's convenience and without cause, upon thirty (30) days' advance notice. Under such circumstances, this Agreement shall terminate on the date set forth in the notice from the City. The Consultant agrees to immediately prepare to cease performing all services on

the date of termination and shall otherwise cease, to the extent practicable, incurring costs chargeable to the City under this Contract as of the date of termination. To the extent that the City elects (and Consultant hereby grants to the City the right to elect to do so in connection with termination of this Contract) to take legal assignment of subcontracts, the Consultant shall, as a condition of receiving the payments referred to in this Article and otherwise under this Agreement, at the City's sole cost and expense, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Consultant, as the City may require for the purpose of fully vesting in the City the rights and benefits of the Consultant under such subcontracts. In the event an attempted termination by the City or excuse is not justified, it shall be deemed a termination under this Paragraph. The Consultant shall be entitled to receive payment for work executed, and costs incurred by reason of such termination of convenience, along with reasonable overhead and profit on the work not executed.

III.7 FREEDOM OF INFORMATION

All submittals are subject to public inspection, subject to the provisions of Section 1-210 of the Connecticut General Statutes (Freedom of Information). Consistent with Article 1-210 (b) 24, copies of information resulting from this RFP are generally not available until a contract has been formally awarded

III.8 FORM OF CONTRACT

The City intends to use a Bristol standard contract for professional services for the purposes of engaging a firm to provide the requested services (template attached).

**Request for Proposals
City of Bristol, Connecticut 06010**



**Consultant/Engineering Services for
Climate Resiliency Flooding/Storm Drainage
2P25-016**

Due Date: 1:00 pm, February 26, 2025

Mailing address:

City of Bristol, Connecticut
Purchasing Department
111 North Main Street
Bristol, CT 06010

In accordance with the City's requirements, the undersigned agrees to provide services as defined herein.

The undersigned is familiar with the conditions surrounding this Request for Proposals, is aware that the City reserves the right to reject any and all submissions, and is making submission without collusion with any other person, individual or corporate.

Witness

Signature

Company Name

Printed Name

Address

Title

Town

State Zip

Date

Federal ID #

Telephone Number

Email address

RETURN THIS FORM IMMEDIATELY!

**City of Bristol, Connecticut
Acknowledgment: Receipt of RFP Documents**

**Request For Proposals 2P25-016
Consultant/Engineering Services
Climate Resiliency Flooding/Storm Drainage**

Please take a moment to acknowledge receipt of the attached documents. Your compliance with this request will help us to maintain proper follow-up procedures while ensuring that all recipients have the opportunity to submit submissions.

Date issued: January 28, 2025

Date documents received ____/____/____

Do you plan to submit a response? Yes____ No____

Print or type the following information:

Company name: _____

Address: _____

City or Town: _____

Phone: _____

Email: _____

Received by: _____

Note: acknowledgments are requested!
purchasing@bristolct.gov



City of Bristol, Connecticut Non-Collusion Certification

The undersigned certifies under penalty of false statement that this proposal or contract has been made, submitted and executed in good faith and without collusion or fraud with any other person, and without any agreement designed to limit independent bidding or competition. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity or group of individuals.

I further certify that I have not provided or directed to be provided gifts, meals, or gratuities, as defined in Sec. 2-129(b) of the Bristol Code of Ordinances to any official or employee of the City of Bristol responsible for awarding or administering this bid or contract.

Please complete and sign

Legal Name of Bidder: _____

Business Address: _____

Name of Authorized Agent _____ Title: _____

Phone: _____ Email: _____

Signature: _____ Date: _____

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES
CONTRACT COMPLIANCE REGULATIONS
NOTIFICATION TO BIDDERS

(Revised 09/3/15)

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to “aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials.” “Minority business enterprise” is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: “(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n.” “Minority” groups are defined in Section 32-9n of the Connecticut General Statutes as “(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4) Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . .” An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder’s qualifications under the contract compliance requirements:

- (a) the bidder’s success in implementing an affirmative action plan;
- (b) the bidder’s success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder’s promise to develop and implement a successful affirmative action plan;
- (d) the bidder’s submission of employment statistics contained in the “Employment Information Form”, indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder’s promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidder’s good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding fifteen million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.

BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.

MARKETING AND SALES: Occupations related to the act or process of buying and selling products and/or services such as sales engineer, retail sales workers and sales representatives including wholesale.

LEGAL OCCUPATIONS: In-House Counsel who is charged with providing legal advice and services in regards to legal issues that may arise during the course of standard business practices. This category also includes assistive legal occupations such as paralegals, legal assistants.

COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists.

ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.

OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, bill and account collectors, customer service representatives, dispatchers, secretaries and administrative assistants, computer operators and clerks (such as payroll, shipping, stock, mail and file).

BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.

CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..

INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.

MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and recyclable material collectors; and miscellaneous material moving workers.

PRODUCTION WORKERS: The job titles included in this category are chemical production machine setters, operators and tenders; crushing/grinding workers; cutting workers; inspectors, testers sorters, samplers, weighers; precious stone/metal workers; painting workers; cementing/gluing machine operators and tenders; etchers/engravers; molders, shapers and casters except for metal and plastic; and production workers.

3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information) (Page 3)

<u>White</u> (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East. <u>Black</u>(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa. <u>Hispanic</u>- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.	<u>Asian or Pacific Islander</u>- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa. <u>American Indian or Alaskan Native</u>- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.
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BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number _____ Or Social Security Number _____
Major Business Activity (brief description)	Bidder Identification (response optional/definitions on page 1) -Bidder is a small contractor. Yes ___ No ___ -Bidder is a minority business enterprise Yes ___ No ___ (If yes, check ownership category) Black ___ Hispanic ___ Asian American ___ American Indian/Alaskan Native ___ Iberian Peninsula ___ Individual(s) with a Physical Disability ___ Female ___
Bidder Parent Company (If any)	- Bidder is certified as above by State of CT Yes ___ No ___
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes___ No___	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes___ No___
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes___ No___	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes___ No___
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes___ No___	9. Does your company have a mandatory retirement age for all employees? Yes___ No___
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes ___ No ___	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes ___ No ___ NA ___
5. Do you notify the Ct. State Employment Service of all employment openings with your company? Yes ___ No ___	11. If your company has apprenticeship programs, do they meet the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes ___ No ___ NA ___
6. Does your company have a collective bargaining agreement with workers? Yes___ No___ 6a. If yes, do the collective bargaining agreements contain non-discrimination clauses covering all workers? Yes___ No___ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes___ No___	12. Does your company have a written affirmative action Plan? Yes ___ No ___ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes ___ No ___ If yes, give name and phone number. _____

Part III - Bidder Subcontracting Practices

(Page 4)

1. Will the work of this contract include subcontractors or suppliers? Yes__ No__

1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)

1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above?

Yes__ No__

PART IV - Bidder Employment Information

Date:

JOB CATEGORY *	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ALASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Marketing & Sales											
Legal Occupations											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation , Maintenance & Repair											
Material Moving Workers											
Production Occupations											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

*NOTE: JOB CATEGORIES CAN BE CHANGED OR ADDED TO (EX. SALES CAN BE ADDED OR REPLACE A CATEGORY NOT USED IN YOUR COMPANY)

PART V - Bidder Hiring and Recruitment Practices

(Page 5)

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.

(Signature)	(Title)	(Date Signed)	(Telephone)
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CONTRACT FOR PROFESSIONAL SERVICES
BRISTOL, CONNECTICUT
Contract 2P25-016
[Contract Name]

This Agreement made this _____th day of _____ 2025, by and between the **City of Bristol**, a municipal corporation located in the County of Hartford and State of Connecticut, hereinafter termed "City", and **[Company name]**, a Connecticut company qualified to do business in the State of Connecticut, with an office at **123 Main Street, Anytown CT 06010** hereinafter termed "Consultant".

WITNESSETH:

WHEREAS, the City seeks to mitigate flooding within the City, with particular focus on vulnerable populations within the opportunity zones noted as census tracts 4057 and 4060.01, and educate and prepare the community for climate resiliency;

WHEREAS, the Consultant is to perform engineering services as needed and as requested by the City of Bristol, as outlined in the City of Bristol Request For Proposals 2P25-016 and the Consultant Proposal dated **January 7, 2025**, representing that the Consultant is experienced and qualified to carry on such work;

NOW, THEREFORE, the City and the Consultant, for the consideration and in accordance with the terms and conditions hereinafter set forth, hereby agree as follows:

1. The Consultant hereby represents, warrants and covenants to the City as of the date hereof the following:
 - A. The undersigned representative of the Consultant has been authorized and empowered to execute this Contract by a Resolution of its Board of Directors.
 - B. The Consultant is experienced in the services required for the completion of services required within this contract, and the Consultant and its agents and employees are qualified to perform the duties contemplated under the Contract.
 - C. The Consultant employs and will maintain employment of during the term of the Contract, appropriate staff to complete the services outlined herein.

- D. No statement of fact made by or on behalf of the Consultant in this Contract, in the Contract Specifications, or in any certificate or exhibit furnished to the City pursuant hereto contains any untrue statements of a material fact or omits to state any material fact necessary to make statements contained therein or herein not misleading.
- E. The Consultant understands all the terms and conditions of this Contract, including the Contract Specifications, and hereby agrees to adhere to the Contract Specifications and attached Exhibits which are hereby made a part of the Contract.

2. EMPLOYMENT OF CONSULTANT:

The City hereby engages the Consultant and the Consultant hereby agrees to perform all of the services and furnish all of the records, materials, forms and supplies required by and in complete accordance with the City of Bristol's Request For Proposals ("RFP"), entitled 2P25-016, a copy of which is attached hereto marked Exhibit A, and the Consultant's proposal dated [Proposal due date], a copy of which is attached hereto marked Exhibit B.

In the event that exhibits have different standards as to any performance requirement, the more stringent requirement shall prevail.

The following scope of services is considered within the responsibility of the Consultant:

- Present potential remediation options that may include but not limited to the creation of a no-build flood plain.
- Evaluate and rank potential mitigation projects be based on multi-benefits such as creating passive recreation/ park areas along the river (after purchase and demolition of frequently flooded homes), promoting pedestrian/ bike use, and addressing environmental justice concerns.
- Develop a community emergency plan to address roadway flooding that cuts off and isolates sections of the City during large storm events. Leaders of the City's Police, Fire, and Emergency Management Departments would participate in plan development along with input from the community.

- Conduct community-based meetings to define in detail level of flooding and provide public education as to the available FEMA, State, and local resources available to residents after flooding events.
- Provide public education to residents of the flood-prone areas to assist in the development of individual action plans. These plans would address evacuation routes, alternate housing, moving of vehicles, and plans for the retention of important papers (e.g. insurance policies and bank records).

3. COMMENCEMENT AND COMPLETION:

- A. Following execution of this Contract, the Consultant shall commence work within five (5) working days from the date of an assignment of work, for which a purchase order shall be issued for said work assignment.
- B. The Consultant agrees to complete the work in accordance with the Contract Specifications set forth in Exhibits A and B.
- C. The Consultant agrees to adhere to the time schedule for the work as set forth in the Contract Specifications set forth in Exhibits A and B.

4. USE OF DOCUMENTS:

All files and/or drawings developed through this Contract shall be considered the property of the City of Bristol, whether or not an assignment is completed.

5. RESPONSIBILITIES OF THE CITY:

The City shall do the following in a timely manner so as not to delay the services of the Consultant and shall bear all costs incident thereto:

- 5.1 Pay the Consultant in accordance with the terms of this Contract.
- 5.2 Designate in writing a person to act as the City's representative with respect to the services to be performed or furnished by the Consultant under this Contract. Such person will have complete authority to transmit instructions, receive information, interpret, and define the City's policies and decisions with respect to the Consultant's services for the Project.

5.3 Assist the Consultant by placing at its disposal all available information pertinent to the work, including previous drawings or reports and, as applicable to the services, any other data relative to design or construction of a work assignment, all of which the Consultant shall be entitled to rely upon.

6. COMPENSATION:

The City agrees to pay to the Consultant the amount of **[amount in words] [amount in numbers]**, in accordance with amounts as outlined in Exhibit B, as compensation for the Consultant's services to be performed and the records, materials, forms and supplies to be furnished by the Consultant.

The Consultant and the City agree that payment for work completed shall be made within thirty days of performance of such services, or within thirty (30) days of receipt of properly executed invoice, whichever comes later.

Reimbursement for mileage and other associated travel costs that are solely relevant to travel to Bristol CT are specifically identified as not compensable.

7. INDEMNIFICATION:

The Consultant agrees to indemnify and save harmless, the City of Bristol, as well as its officers, agents and employees from any and all claims and losses to the extent caused by the negligent act, error or omission of the Consultant resulting from performance under this Contract, except to the extent caused by the negligent acts of the City of Bristol, or its officers, agents or employees.

8. INSURANCE:

The Consultant shall provide to the City a certificate of insurance, naming the City of Bristol and the State of Connecticut as additional insured, for the following:

- General liability (including completed operations coverage) in the amounts of \$1,000,000 (combined single limit) Bodily Injury/Property Damage coverage per occurrence, and \$2,000,000 general aggregate coverage.

- Automobile Liability in the amount of \$1,000,000 (combined single limit), Property Damage and Bodily Injury coverage.

Additionally, the Consultant shall provide to the City a certificate of insurance reflecting the following coverage:

- Professional Liability, in an amount not less than \$500,000.00 per occurrence and \$1,000,000.00 aggregate.
- Worker's Compensation as defined in the Connecticut General Statutes.

The Consultant shall maintain professional liability insurance until the expiration of the statute of limitations. In the event there is no statute of limitations specifically applicable to an assignment, the Consultant shall maintain coverage for a reasonable period after the date of substantial completion of the project, as agreed to by the City and the Consultant. The Consultant shall provide renewed certificates of insurance to the City thirty (30) days prior to the expiration of a certificate.

Any sub-consultant to the Consultant shall be likewise covered, and shall furnish certificates of coverage acceptable to the City before starting work.

9. ASSIGNMENT OF CONTRACT:

The Consultant agrees that it shall not assign, transfer or sublet the Contract, or any interest or part therein, without first receiving written approval from the City, and further agrees that any such assignment or transfer or subletting without prior written approval of the City shall, in every case, be null and void, and further agrees that such approval by the City shall not release the Consultant from any responsibility or liability as set forth in this Contract and the Contract Specifications.

10. TERMINATION:

A. *TERMINATION BY THE CONSULTANT*

If the City fails to make payment as provided in Section 5.1 for a period of 30 days, the Consultant may, upon seven additional days' written notice to the City, terminate the Contract

and recover from the City payment for work executed, including reasonable overhead and profit, costs incurred by reason of such termination, and damages.

B. *TERMINATION BY THE CITY FOR CAUSE*

The City may terminate the Contract if the Consultant

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Consultant and its Subcontractors;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

When any of the above reasons exists, the City may, without prejudice to any other remedy the City may have and after giving the Consultant seven days' written notice, terminate the Contract and take possession of all materials prepared by the Consultant relative to this contract and may finish the work by whatever reasonable method the City may deem expedient. During the seven day notice period, the Consultant shall have the option to present to the City a plan to remedy the notice for termination for cause, which may be accepted by the City at its sole discretion. Upon request of the Consultant, the City shall furnish to the Consultant a detailed accounting of the costs incurred by the City in finishing the work.

When the City terminates the Contract for one of the reasons stated above in this section, the Consultant shall not be entitled to receive further payment until the work is finished.

C. *TERMINATION BY THE OWNER FOR CONVENIENCE*

The City may, at any time, terminate the Contract for the City's convenience and without cause, upon thirty (30) days' advance notice. Under such circumstances, this Agreement shall terminate on the date set forth in the notice from the City. The Consultant agrees to immediately prepare to cease performing all services on the date of termination and shall otherwise cease, to the extent practicable, incurring costs chargeable to the City under this Contract as of the date of termination. To the extent that the City elects (and Consultant

hereby grants to the City the right to elect to do so in connection with termination of this Contract) to take legal assignment of subcontracts, the Consultant shall, as a condition of receiving the payments referred to in this Article and otherwise under this Agreement, at the City's sole cost and expense, execute and deliver all such papers and take all such steps, including the legal assignment of such subcontracts and other contractual rights of the Consultant, as the City may require for the purpose of fully vesting in the City the rights and benefits of the Consultant under such subcontracts. In the event an attempted termination by the City or excuse is not justified, it shall be deemed a termination under this Paragraph. The Consultant shall be entitled to receive payment for work executed, and costs incurred by reason of such termination of convenience, along with reasonable overhead and profit on the work not executed.

11. SEVERABILITY:

In the event that any part of any clause or provision of the Contract or Contract Specifications as set forth in Exhibits A and B are judicially determined to be invalid or unenforceable, it shall be deemed severable from the remainder of that clause or provision, and such remainder shall be binding upon the parties to this Contract.

12. WAIVER:

No action or failure to act by the City shall constitute a waiver of any right or duty afforded it under the Contract or Contract Specifications, nor shall it prohibit the City from future exercises of any such right.

13. ENTIRE AGREEMENT:

This Contract, including Exhibits A and B, contains the complete and entire agreement between the parties and may not be modified or amended except in a writing executed by the parties hereto.

14. GOVERNING LAW:

This Contract shall be interpreted and governed under the laws of the State of Connecticut and by the courts of the State of Connecticut.

IN WITNESS WHEREOF, the parties hereto have hereunto set their hands and seals this
_____th day of _____, 2025.

City of Bristol, Connecticut

[Company Name]

By _____
Mayor Jeffrey Caggiano date

By _____
[Name], date
[Title]

This Contract was approved by vote of the City Council of Bristol, Connecticut, on the _____th day of _____, 2025.

Erica Cabiya
City Clerk

Approved as to form:
CORPORATION COUNSEL

Approved as to Technical Content:
PUBLIC WORKS DEPARTMENT

By _____
Corporation Counsel

By _____
Director of Public Works

Date: _____

Date: _____

Approved as to Appropriations:
BOARD OF FINANCE, CITY OF BRISTOL

By _____
Comptroller

Date: _____

STATE OF CONNECTICUT)
)
COUNTY OF HARTFORD) ss. Bristol

On this ____th day of _____, 2025, before me, the undersigned officer, personally appeared **[Name]**, who acknowledged himself/herself to be **the Mayor of the City of Bristol**, a municipal corporation, and that he/she, as such Mayor, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself/herself as Mayor of the City of Bristol.

IN WITNESS WHEREOF, I have hereunto set my hand.

Notary Public

STATE OF CONNECTICUT)
)
COUNTY OF HARTFORD) ss. Bristol

On this ____th day of _____, 2025, before me, the undersigned officer, personally appeared **[Name]**, who acknowledged himself/herself to be **[Title]** of **[Company name]** a corporation, and that he/she, as such **[Title]**, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself/herself as **[Title]**.

IN WITNESS WHEREOF, I hereunto set my hand.

Notary Public

Project Update: Climate Resiliency/Flooding/Storm Drainage

Tuesday September 9th, 2025





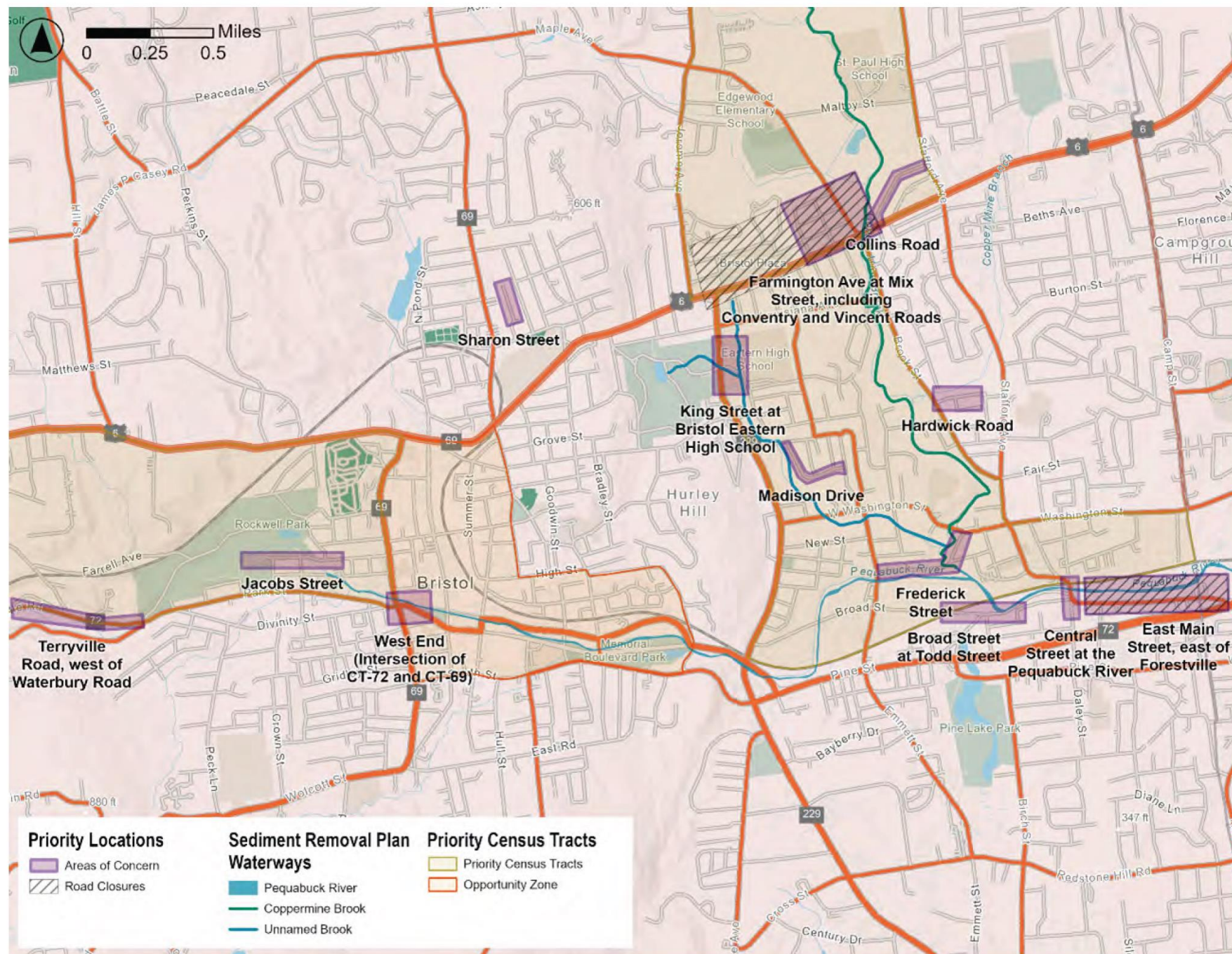
Agenda

1. Grant Overview
2. Project Scope
3. Schedule + Budget
4. Site Visit
5. Upcoming Work:
 - I. Engineering Task Overview
 - II. Interdisciplinary Solutions
 - III. Policy Interventions and Education
 - IV. Engagement Program



1) Grant Overview

- Bristol received a \$250,000 CT DEEP Resilience Fund Grant.
- Intended to identify engineering solutions to mitigate flooding within the City.
- Community outreach and public education around flooding preparedness are also key components.





2) Project Scope



Bucket 0: Foundation

- Project Management
- Baseline Conditions



Bucket 1: Engineered Solutions

- Storm Sewer Improvements★
- Sediment Removal Plan
- Property Acquisition



Bucket 2: Engagement

- First Responder's Workshop★
- Education and Participatory Mapping Workshop★
- Individual Action Plan Workshop★



Bucket 3: Planning

- Draft Community Emergency Plan
- Final Community Emergency Plan
- Flood Ordinance
- Low Impact Development



Bucket 4: Prioritization

- Project Development
- Project Prioritization



Public Workshop



Stakeholder Workshop



3) Project Schedule

Completed:

- Project Kickoff: July 16
- Site Visit: August 6th

Starting

- Storm Sewer Standards
- Sediment Removal

Task	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Project Management														
Baseline Conditions														
Storm Sewer Standards														
Sediment Removal														
First Responder's Workshop														
Public Workshop 1: Participatory Mapping and Resources														
Draft Community Emergency Plan														
Final Community Emergency Plan														
Public Workshop 2: Individual Action Plan Development														
Flood Ordinance Review														
Low Impact Dev Guidelines														
Concept Dev														
Project Prioritization														
Property Acquisition Plan														



4) Site Visit

- Meeting with City to document existing conditions
- Incorporating notes into our baseline mapping
- Next Steps:
 - Circulating maps to DPW for review
 - Additional Data request

Priority Locations

- Areas of Concern
- Road Closures

Sediment Removal Plan Waterways

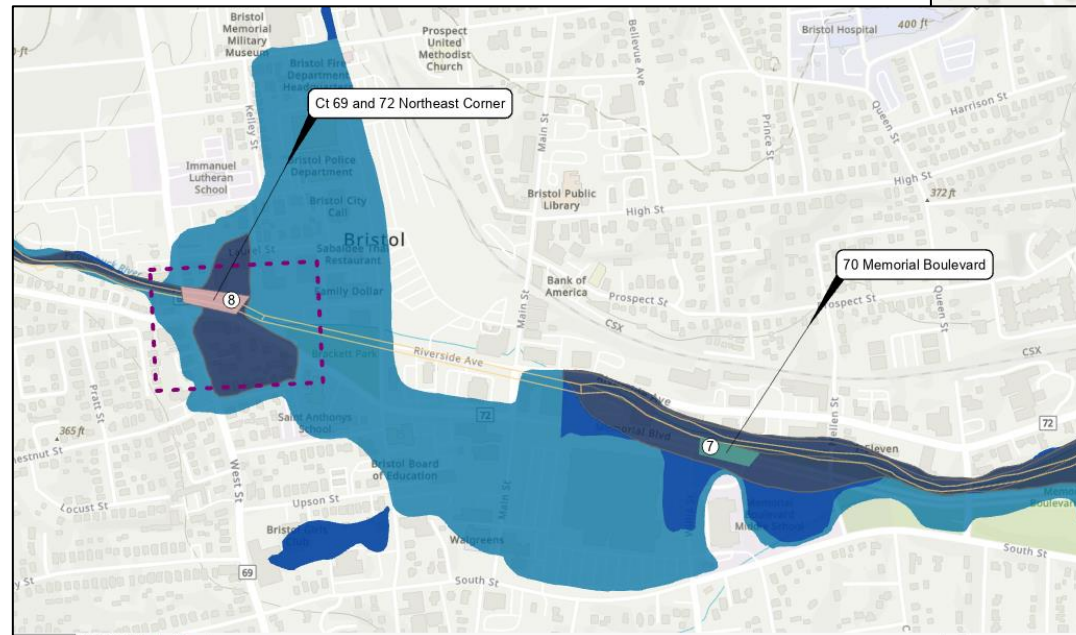
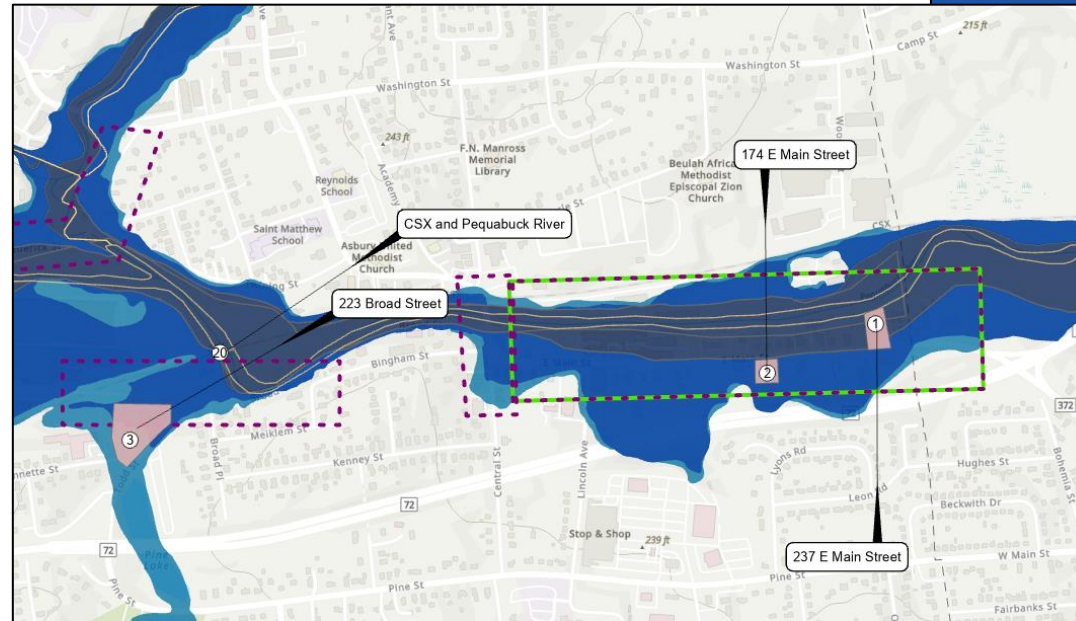


Site Visit Notes

- Flood
- Flood, Bridge
- Flood, Emergency Management Issue
- Obstruction
- Debris

SFHA

- 0.2% Annual Chance
- 1% Annual Chance
- Regulatory Floodway





Engineering and Data Review

Project Tasks:

- Site Visits
- GIS Mapping
- Review Existing Hydraulic Studies
- Historical Data
- FEMA Information/Updates
- Develop Conceptual Designs



Evaluating Interdisciplinary Solutions

Green Solutions to Consider:

- Bioretention areas
- Subsurface detention/infiltration systems
- Reduce impervious areas
- Restoring flood plain
- Daylighting streams that are currently in underground culverts

Gray Solutions to Consider:

- Increasing capacity of existing infrastructure
- Surface ponds/constructed wetlands
- Flood-proofing buildings
- Property acquisitions





Developing Policy Interventions + Education

- **Stormwater Regulation updates**
 - Elevation Requirements for new structures
 - Backwater valve deployment
 - Upstream retention timing
- **Emergency Response**
 - Municipal: Strengthening Bristol's response practices.
 - Community: Coordination with neighbors
 - Household: Preparedness, structure-level mitigation
- **Understanding root causes**
 - Precipitation, riverine, and high water-table impacts
 - City versus property-owner responsibilities





Engaging the Public



Storm Sewer Standards – Workshop with DPW

- Attendees: DPW, City Staff:
- Topics: Example standards improvements from other communities.
- Purpose: Feedback will inform *Storm Sewer Improvement Standards*

First Responders' Workshop

- Attendees: Emergency Management staff, Police Department, Fire Department, and the Water and Sewer Department.
- Topics: Impact of flooding-induced road closures on community lifeline access.
- Purpose: Inform *Community Emergency Plan*

Public Workshop 1: Participatory Mapping and Resources

- Attendees: Flood-impacted Bristol residents
- Topics: mapping flood impacts, potential interventions, familiarization with FEMA, state, and local resources.
- Purpose: Inform *Community Emergency Plan*, provide opportunity for local first responders to speak with the community.

Public Workshop 2: Individual Action Plan Development

- Attendees: flood-impacted Bristol Residents
- Topics: Individual actions plans, evacuation routes, floodproofing techniques, flood sourcing and causation, buyout program participation pathways.
- Purpose: Emergency preparedness.

Thank you





Department of Public Works | 860.584.6125

MEMORANDUM

DATE: August 28, 2025

TO: Mayor Jeffrey Caggiano
Flood Erosion Control Board
Board of Public Works

FROM: Raymond A. Rogozinski, P.E., Director of Public Works

RE: Revised FEMA Mapping – Pequabuck River and Coppermine Brook (Farmington River)

FEMA is currently in the process of revising and updating the flood plain/floodway maps for the Pequabuck River and Coppermine Brook. The FEMA map revisions are for the entire Farmington River and its tributaries, and therefore include the Pequabuck River and Coppermine Brook. The work will include a new detailed study with new hydrology (flow) and hydraulics (water elevation) analysis.

Based on a review of the draft maps, the base flood elevation (BFE) of the water surface during a 100-year flood event is indicated as approximately 1 to 1.5 ft. lower than the current elevation in large areas of the Pequabuck River. However, there are areas along the river where the draft maps indicate an expansion (increase area) and decreases of the flood plain. In addition, the maps depict isolated areas of flood hazard areas known as Flood Zone A. These areas, identified as Flood Zone A, are regulated as Flood Zones, however, a BFE for a 100-year flood elevation has not been established. As a result, Zone A areas require additional analysis by an engineer to establish the BFE required for a flood plain permit, or to establish defined elevations to obtain potentially lower flood insurance rates.

Preliminary maps and studies are complete the 90-day appeal period was from April 16, 2025 to July 14, 2025 and has currently ended. FEMA is currently reviewing comments. It is projected that the FEMA Letter of Final determination (LFD) will be issued in mid-July 2026. Final approval and adoption of the new FEMA maps will not occur until 2027.

Based on correspondence with the Department of Public Works, CT DEEP provided the following information associated with the proposed FEMA map revisions and FEMA flood plain management requirements:

1. *The City of Bristol joined the National Flood Insurance Program (NFIP) on November 18, 1981 and received its first flood insurance rate map (FIRM) and flood insurance study (FIS) from FEMA. A FIRM depicts the boundaries of the 100-year floodplain and base flood elevations (BFE). The hydrologic and hydraulic analysis for all significant flooding sources in Bristol was completed in 1978 and included in the 1981 FIRM and FIS. Prior to entry into the NFIP, Bristol received an initial Flood Hazard Boundary Map (FHBM) from FEMA on May 17, 1974. FHBM are based on approximate flood hazard data and provided the general the location of the 100-year floodplain within the community.*
2. *The NFIP is a direct relationship between FEMA and the local community. When a community chooses to join the NFIP it must adopt the FIRM, FIS and the minimum NFIP floodplain construction requirements (44 CFR 59.1 and 60.3) into its zoning regulations or a stand-alone floodplain ordinance. Through this adoption of FIRM, FIS and regulations, the City has committed to the enforcement of these standards, and as a result federally-regulated flood insurance is made available to Bristol property owners. Flood insurance is required by a lender as a condition of a mortgage if the structure is located within the mapped 100-year floodplain. Although there are some private insurance companies that write flood insurance, it is much easier for a property owner to obtain insurance through the federal program that will satisfy the lender's requirements.*
3. *The initial 1981 FIRMs depict the 100-year floodplain boundaries superimposed over simplified street maps. No aerial photography was used on these FIRMs. They were simple blueprint style maps and depicted the floodplain only within the Bristol corporate limits. At this time FEMA provided each participating community its own floodplain mapping.*
4. *Bristol FIRM were then revised on September 26, 2008. The FEMA Map Modernization initiative combined individual community maps into a countywide format. This goal of this initiative was to take paper maps and convert them to a digital product in order that they were more accessible to users and easier to update in the future. Bristol was included in the FIRM and FIS for Hartford County. These new countywide maps included aerial photography and an updated vertical datum (NAVD88). Updated topographic data was included in this map revision that refined floodplain boundaries. The revised maps made it easier to locate property but did not include updated hydrology (elevation of 100-year flood water surface level). The countywide maps were updated again on September 16, 2011 following a detailed study of the Connecticut River watershed, however this update did not produce any updated FIRM panels for Bristol. On May 16, 2017, one FIRM panel in Bristol was updated through the Quinnipiac River watershed re-study project.*
5. *Bristol is currently part of the Farmington River watershed study initiated by FEMA. This project includes 23 communities in Hartford and Litchfield Counties. The project began with a Discovery Meeting on September 25, 2018. Draft works maps were issued to the communities on July 21 and 22, 2020. Bristol had an individual meeting to discuss its work maps with FEMA on August 11, 2020. Preliminary FIRM and FIS are schedule to be issued to communities on June 8, 2023. These proposed FIRM revisions will include updated hydrology and will depict new 100-year floodplain boundaries and base flood elevations (BFE). Updated topographic data is also used in this study.*
6. *These updated FIRM may increase or decrease the floodplain boundary on a particular property. FEMA does provide resources to communities to identify the changes in the floodplain from existing to proposed mapping.*
7. *Federally-insured or backed lenders are required to determine if a structure is located in the mapped 100-year floodplain and require flood insurance as part of a mortgage, home equity line or construction loan. This is called the "Mandatory Purchase Requirement". Lenders typically hire a flood determination company to determine if a structure is located in the floodplain.*
8. *The cost of flood insurance is increasing as prior grandfathering rules and subsidies are slowly being removed due to past federal flood insurance legislation (Biggert-Waters Flood Insurance Reform Act of 2012 and Homeowners Flood Insurance Affordability Act of 2014). FEMA recently*



Department of Public Works | 860.584.6125

introduced a new premium calculation methodology called Risk Rating 2.0 which includes many more rating criteria in order to achieve a more individualized premium.

9. *FIRM and FIS are prepared by FEMA and its hired mapping contractor. Municipalities and state agencies participate in the mapping update process through meetings and feedback on work maps. A formal appeals process is also included in the map update procedure. Outside of a formal mapping study, map amendments and revisions require a formal request to FEMA and the services of either a Licensed Surveyor or Licensed Engineer, or both depending on the complexity of the request. These requests are called Letter of Map Amendment or Letter of Map Revision (LOMA or LOMR) and FEMA provides standard forms for these requests. A statement from a property owner indicating that the property has not flooded is not considered as factual data in the LOMA or LOMR process.*

DPW has reviewed the proposed FEMA maps pending approval and identified properties where structures were removed from and added to the flood plain. DPW was not required to provide a letter, however a letter was sent to each effected property owner. See attached list of effected property owners.

A link to the pending FEMA map is provided below:

<https://msc.fema.gov/portal/advanceSearch>

From the drop-down boxes, choose: State = Connecticut, County = Hartford, Community = Bristol, Then hit the blue "Search" button, click on the link "Preliminary Products (111)", click on the link "Preliminary FIRM (99)"

City Engineer, William Stango, P.E. is scheduled to present the revised plans to the Flood Erosion Control Board at its September 9, 2025 meeting.

Please feel free to contact me with any questions or concerns at 860-584-6113.

Building Type	MAILING ADDRESS	OWNER NAME	AO MAP CHANGE
Principal Structure	100 NORTH ST	WINDSOR BEST CLEANERS LLC	OUT OF AO
Principal Structure	106 NORTH ST	REDDY GROUP LLC	OUT OF AO
Principal Structure	430 NORTH MAIN ST	NORTHSIDE SQUARE LLC	OUT OF AO
Principal Structure	430 NORTH MAIN ST	NORTHSIDE SQUARE LLC	OUT OF AO
Principal Structure	81 NORTH ST	LINCOLN & DAMATO LLC	OUT OF AO
Principal Structure	109 NORTH POND ST	AKERLEY JILL G	OUT OF A
Principal Structure	111 NORTH POND ST	BEST CORNELIUS	OUT OF A
Principal Structure	115 NORTH POND ST	CASTROGIOVANNI SALVADOR + SUSAN	OUT OF A
Principal Structure	154 CHURCH ST	154 CHURCH ST LLC	OUT OF A
Principal Structure	40 WEST ST	BRISTOL REAL ESTATE LLC	OUT OF A
Condominium	45-57 SOUTH ST		OUT OF A
Principal Structure	463 WOLCOTT RD	HARRY C BARNES MEMORIAL NATURAL	OUT OF A
Principal Structure	47 UPSON ST	FAMILY CENTER INCORPORATED THE	OUT OF A
Principal Structure	7 UPSON ST	UPSON BRISTOL LLC	OUT OF A
Principal Structure	79 NORTH POND ST	ATLANTIC REALTY LLC	OUT OF A
Principal Structure	83 NORTH POND ST	DOUCETTE LAURETTE J + ARMAND W	OUT OF A
Principal Structure	87 NORTH POND ST	GRANT JOSHUA ELIJAH	OUT OF A
Principal Structure	9 BEECH ST	RIOUX ROGER P	OUT OF A
Principal Structure	91 NORTH POND ST	THAXTER JAMES L +	OUT OF A
Principal Structure	95 NORTH POND ST	BACHAND CHRISTOPHER E	OUT OF A
Principal Structure	CRESCENT DR EXT		OUT OF A
Principal Structure	10 GRACE AVE	NAUSS TED G	OUT OF AE
Principal Structure	10 MARINE CT	KOZIKOWSKI JOSEPH J + ROSE W	OUT OF AE
Principal Structure	100 ARTISAN ST	MORIN DEBORAH S	OUT OF AE
Principal Structure	103 ARTISAN ST	PRESTON CASSANDRA +	OUT OF AE
Principal Structure	103 MAPLE AVE	DELTA REALTY CORP	OUT OF AE
Principal Structure	103 VANTANA DR	RATHKE JAMES K + SANDRA J	OUT OF AE

Principal Structure	105 LYNN RD	CARENZO LAWRENCE J + SHEILA A	OUT OF AE
Principal Structure	110 ARTISAN ST	MOODY PATRICIA S	OUT OF AE
Principal Structure	113 LYNN RD	MAGYAR GERALDINE R	OUT OF AE
Principal Structure	115 PINE ST	65 BURRITT STREET LLC	OUT OF AE
Principal Structure	115 SCHOOL ST	SBK LLC	OUT OF AE
Principal Structure	115 VANTANA DR	LAVOIE NORMAN F	OUT OF AE
Principal Structure	116 RIVERSIDE AVE	SFS PROPERTIES LLC	OUT OF AE
Principal Structure	120 TERRYVILLE RD	RABR LLC	OUT OF AE
Principal Structure	121 TERRYVILLE RD	LETOURNEAU CARMEN	OUT OF AE
Principal Structure	122 SCHOOL ST	LOPIANO MAURO	OUT OF AE
Principal Structure	124 WEST ST	THERIAULT FERNANDO	OUT OF AE
Principal Structure	124 WEST ST	THERIAULT FERNANDO	OUT OF AE
Principal Structure	127 LYNN RD	LACOUTURE ROBERT + JACKIE	OUT OF AE
Principal Structure	130 SCHOOL ST	LOPIANO MAURO + MARIE	OUT OF AE
Principal Structure	132 RIVERSIDE AVE	LISACO LLC	OUT OF AE
Principal Structure	137 SCHOOL ST	BOTTONE ANDREW + SEBASTIAN AD	OUT OF AE
Principal Structure	137 SCHOOL ST	BOTTONE ANDREW + SEBASTIAN AD	OUT OF AE
Principal Structure	137 TERRYVILLE RD	D B S ASSOCIATES LLC	OUT OF AE
Principal Structure	138 WEST ST	GRAND SARGENT LLC	OUT OF AE
Principal Structure	138 WEST ST	GRAND SARGENT LLC	OUT OF AE
Principal Structure	141 LYNN RD	TOMASI MARY C	OUT OF AE
Principal Structure	146 LAUREL ST	GRAND MANOR HOLDINGS LLC	OUT OF AE
Principal Structure	146 LAUREL ST	GRAND MANOR HOLDINGS LLC	OUT OF AE
Principal Structure	147 SCHOOL ST	RAMOS JOSE A	OUT OF AE
Principal Structure	147 TERRYVILLE RD	147 TERRYVILLE ROAD LLC	OUT OF AE
Principal Structure	148 WEST ST	148 WEST STREET LLC	OUT OF AE
Principal Structure	15 MUZZY ST	CITY OF BRISTOL	OUT OF AE
Principal Structure	15 MUZZY ST	CITY OF BRISTOL	OUT OF AE

Principal Structure	15 MUZZY ST	CITY OF BRISTOL	OUT OF AE
Principal Structure	15 VANTANA DR	DESANTIS ROBERT K + CHERYL	OUT OF AE
Principal Structure	150 TERRYVILLE RD	COLLISION DEPOT LLC	OUT OF AE
Principal Structure	156 FREDERICK ST	COUTURE CHRISTOPHER B + MELISSA	OUT OF AE
Principal Structure	158 TERRYVILLE RD	COLLISION DEPOT LLC	OUT OF AE
Principal Structure	162 BROOK ST	RANCOURT RAMONA L	OUT OF AE
Principal Structure	163 and 165 SCHOOL ST		OUT OF AE
Principal Structure	163 BROOK ST	WOJTECZKO BEATO	OUT OF AE
Principal Structure	164 CENTRAL ST REAR		OUT OF AE
Principal Structure	165 TERRYVILLE RD	CASSIDY HOLDINGS LLC	OUT OF AE
Principal Structure	170 RIVERSIDE AVE	BRISTOL THAI LLC	OUT OF AE
Principal Structure	171 LAUREL ST	PHILIP C FERRARO FAMILY LLC	OUT OF AE
Principal Structure	171 SCHOOL ST	HEARTHSTONE HOLDINGS LLC	OUT OF AE
Principal Structure	173 BROOK ST	GAYLE ADOLPHUS A	OUT OF AE
Principal Structure	180 RIVERSIDE AVE	ESHAA LLC	OUT OF AE
Principal Structure	185 FREDERICK ST	CRESTWOOD MEADOWS LLC	OUT OF AE
Principal Structure	19 MARINE CT	MELANSON SABRINA	OUT OF AE
Principal Structure	195 JACOBS ST	SANCHEZ MARLENE	OUT OF AE
Principal Structure	200 RIVERSIDE AVE	COLGATE DESIGN CORP	OUT OF AE
Principal Structure	201 TERRYVILLE RD	BLUE MOON REALTY LLC	OUT OF AE
Principal Structure	201 TERRYVILLE RD	BLUE MOON REALTY LLC	OUT OF AE
Principal Structure	203 JACOBS ST	SMOLENSKI JOHN	OUT OF AE
Principal Structure	215 FREDERICK ST	AD AUTO LLC	OUT OF AE
Principal Structure	223 BROAD ST	223 BROAD STREET LLC	OUT OF AE
Principal Structure	225 TERRYVILLE RD	LUDBAR INC	OUT OF AE
Principal Structure	23 MARINE CT	ALBERT STEVE H + ELLISH ELISA ESTE	OUT OF AE
Principal Structure	230 TERRYVILLE RD	LUDBAR INC	OUT OF AE
Principal Structure	234 RIVERSIDE AVE	RENEW RIVERSIDE LLC	OUT OF AE

Principal Structure	235 JACOBS ST	GRAHAM GARRETT + GRAHAM HEAT	OUT OF AE
Principal Structure	24 MARINE CT	PAZIK ARKADIUSZ	OUT OF AE
Principal Structure	24 MATTHEWS ST	MADDEN BRIAN	OUT OF AE
Principal Structure	24 ORCHARD ST	ALZATE CARLOS	OUT OF AE
Principal Structure	249 TERRYVILLE RD	JWD PROPERTY DEVELOPMENT LLC	OUT OF AE
Condominium	25 WASHINGTON ST		OUT OF AE
Principal Structure	258 MORNINGSIDE DR WEST	MALONE HALEY + BRITT LAMAR	OUT OF AE
Principal Structure	26 BARNES ST	HOLIDAY DAN C + LISE SURV	OUT OF AE
Principal Structure	26 BUCKBOARD LA	REDMAN JANET B + EDWARD A CO-T	OUT OF AE
Principal Structure	264 BROOK ST	GESNER ANDREW P	OUT OF AE
Principal Structure	266 MORNINGSIDE DR WEST	YATES BRITTANY	OUT OF AE
Principal Structure	27 WATERBURY RD	PEPIN ALLAN K ESTATE OF	OUT OF AE
Principal Structure	270 BROOK ST	BRODERICK TIMOTHY + BOROWY AN	OUT OF AE
Principal Structure	274 MORNINGSIDE DR WEST	BROWN JOHN H + NANCY B	OUT OF AE
Principal Structure	276 BROOK ST	BAISCH GREGORY + MICHELLE R	OUT OF AE
Principal Structure	282 BROOK ST	DELLAMARGGIO MARIO	OUT OF AE
Principal Structure	288 BROOK ST	GARCIA HECTOR FLORES	OUT OF AE
Principal Structure	291 TERRYVILLE RD	SAGE MARGARET R + CHAPPELL FRA	OUT OF AE
Principal Structure	298 SHRUB RD	PELLETIER JASON	OUT OF AE
Principal Structure	30 ORCHARD ST	GRICE GEORGINA A	OUT OF AE
Principal Structure	30 ROOT AVE	LAVAN THOMAS N + MELISSA E	OUT OF AE
Principal Structure	31 CHURCH AVE	FVC LLC	OUT OF AE
Principal Structure	31 LYNN RD	PAULETTE MATTHEW C	OUT OF AE
Principal Structure	32 ORCHARD ST	DUBOWSKY PROPERTY MANAGEME	NOUT OF AE
Principal Structure	323 BROOK ST	QUINTO JOHN	OUT OF AE
Principal Structure	325 BROOK ST	FISH JAMES	OUT OF AE
Principal Structure	333 BROOK ST	SWICKLAS JAMES D + CAROL D	OUT OF AE
Principal Structure	350 RIVERSIDE AVE	CES PROPERTIES LLC	OUT OF AE

Principal Structure	351 STAFFORD AVE	WOOD ANDREW	OUT OF AE
Principal Structure	36 BUCKBOARD LA	RUSSO MICHAEL	OUT OF AE
Principal Structure	36 ORCHARD ST	JONES NICOLAS JR	OUT OF AE
Principal Structure	360 RIVERSIDE AVE	BAILLARGEON DAVID	OUT OF AE
Principal Structure	365 TERRYVILLE RD	SIRKO PAUL J	OUT OF AE
Principal Structure	37 COLLINS RD	CYR AMANDA	OUT OF AE
Principal Structure	37 EDROW RD	DESIMONE JULIE A	OUT OF AE
Principal Structure	370 RIVERSIDE AVE	PLONSKI GARY J	OUT OF AE
Principal Structure	382 STAFFORD AVE	HIRX DAVID M +	OUT OF AE
Principal Structure	390 STAFFORD AVE	MCMURRY TINA L R	OUT OF AE
Mobile Home	40 MATTHEWS ST		OUT OF AE
Mobile Home	40 MATTHEWS ST		OUT OF AE
Mobile Home	40 MATTHEWS ST		OUT OF AE
Mobile Home	40 MATTHEWS ST		OUT OF AE
Mobile Home	40 MATTHEWS ST		OUT OF AE
Mobile Home	40 MATTHEWS ST		OUT OF AE
Mobile Home	40 MATTHEWS ST		OUT OF AE
Mobile Home	40 MATTHEWS ST		OUT OF AE
Principal Structure	40 ORCHARD ST	EBG HOLDINGS 1 LLC	OUT OF AE
Principal Structure	40 ROOT AVE	BUDNICK JOHN +	OUT OF AE
Principal Structure	40 VANTANA DR	MOORE MICHAEL W +	OUT OF AE
Principal Structure	400 RIVERSIDE AVE	FOUR STAR REALTY III LLC	OUT OF AE
Principal Structure	414 BROAD ST	TD BANKNORTH, NATIONAL ASSOCIA	OUT OF AE
Principal Structure	417 BROAD ST	NUGRA JOSE	OUT OF AE
Principal Structure	42 HARDWICK RD	BRIGLIA DANIEL V	OUT OF AE
Principal Structure	43 COLLINS RD	COE RONALD V + LOWWANZA O	OUT OF AE
Principal Structure	43 TWINING ST	JJR REALTY LLC	OUT OF AE
Principal Structure	450 RIVERSIDE AVE	MC ENTERPRISES LLC	OUT OF AE

Principal Structure	46 ORCHARD ST	CARRIER CONSTRUCTION INC	OUT OF AE
Principal Structure	46 WATERBURY RD	PEPIN ALLAN K ESTATE OF	OUT OF AE
Mobile Home	482 BROAD ST		OUT OF AE
Mobile Home	482 BROAD ST		OUT OF AE
Mobile Home	482 BROAD ST		OUT OF AE
Mobile Home	482 BROAD ST		OUT OF AE
Principal Structure	49 COLLINS RD	SPAULDING RANDY P + CAROL A	OUT OF AE
Principal Structure	50 VANTANA DR	COLANGELO STEPHANIE F	OUT OF AE
Principal Structure	51 HARDWICK RD	YOPP STEPHEN M + TARYN A	OUT OF AE
Principal Structure	512 BROAD ST	THAMMAVONGSA LAMPHONG + BO	OUT OF AE
Principal Structure	520 BROAD ST	CARRERO FELICIANO ANA I +	OUT OF AE
Principal Structure	524 BROAD ST	HAIG DORIS J	OUT OF AE
Principal Structure	534 BROAD ST	534 BROAD STREET LLC	OUT OF AE
Principal Structure	56 MUZZY ST	SCHUR DEBRA A	OUT OF AE
Principal Structure	561 NORTH MAIN ST	WMR REALTY LLC	OUT OF AE
Principal Structure	562 NORTH MAIN ST	ZBIKOWSKI,CAPT EDWARD P POST #	2OUT OF AE
Principal Structure	57 COLLINS RD	CUMMINGS CHARLES A JR	OUT OF AE
Principal Structure	572 BROOK ST	BCT-832 LLC	OUT OF AE
Principal Structure	58 BUCKBOARD LA	FINN JAMES H + DIANE	OUT OF AE
Principal Structure	58 VANTANA DR	MARTIN KEVIN D	OUT OF AE
Condominium	59 WEST WASHINGTON ST		OUT OF AE
Principal Structure	6 ORCHARD ST	6-14 ORCHARD STREET LLC	OUT OF AE
Principal Structure	6 ORCHARD ST	6-14 ORCHARD STREET LLC	OUT OF AE
Principal Structure	6 RICHARD CT	HARRIS REBECCA C	OUT OF AE
Principal Structure	62 MUZZY ST	FINN MARTIN O + CHRISTA	OUT OF AE
Principal Structure	64 CURTISS AVE	CASASANTA LINDA H +	OUT OF AE
Mobile Home	66 EMMETT ST		OUT OF AE
Principal Structure	67 BROOK ST	FLAT 6 REALTY LLC	OUT OF AE

Principal Structure	67 EDROW RD	HOULE GARY M	OUT OF AE
Principal Structure	67 WATERBURY RD	PEPIN ALLAN K ESTATE OF	OUT OF AE
Principal Structure	68 VANTANA DR	ROULEAU MARK P + CHRISTINE	OUT OF AE
Principal Structure	71 WATERBURY RD	PHILIP C FERRARO FAMILY LLC	OUT OF AE
Principal Structure	75 STAFFORD AVE	WOJACK CHERYL L	OUT OF AE
Principal Structure	75 VANTANA DR	COLLIN JEFFREY	OUT OF AE
Principal Structure	76 VANTANA DR	ACAMPORA SALVATORE JR	OUT OF AE
Principal Structure	77 MEADOWBROOK DR	JORDAN NANCY A	OUT OF AE
Principal Structure	79 EDROW RD	MARIN DAVID M + ERIN T	OUT OF AE
Principal Structure	81 NORTH ST	LINCOLN & DAMATO LLC	OUT OF AE
Principal Structure	83 VANTANA DR	BEAULIEU BRIAN O	OUT OF AE
Principal Structure	85 TWINING ST	PALAIA DAVID	OUT OF AE
Principal Structure	87 BEL AIR DR	LEVANDOSKI PATRICIA L	OUT OF AE
Principal Structure	88 VANTANA DR	ISRAEL STEVEN WILLIAM	OUT OF AE
Principal Structure	888 FARMINGTON AVE	TORRINGTON SAVINGS BANK	OUT OF AE
Principal Structure	89 STAFFORD AVE	BRISTOL GROCERY LLC	OUT OF AE
Principal Structure	89 STAFFORD AVE	BRISTOL GROCERY LLC	OUT OF AE
Principal Structure	91 VANTANA DR	THIBODEAU ARIANNA	OUT OF AE
Principal Structure	92 EDROW RD	CALLAHAN CHRISTOPHER D + DARLE	OUT OF AE
Principal Structure	93 ARTISAN ST	CADRRAIN SHARON A	OUT OF AE
Principal Structure	939 JEROME AVE	GONZALES LOUISA LYNN	OUT OF AE
Principal Structure	95 GRACE AVE	ZISK WILLIAM G AND MARY E	OUT OF AE
Principal Structure	96 BARNES ST	ROMANIELLO ALAN C + CHERYL C	OUT OF AE
Principal Structure	97 LYNN RD	DOUGLAS ANN L	OUT OF AE
Principal Structure	99 GRACE AVE	CORRIVEAU ADAM	OUT OF AE
Mobile Home	ANDREWS ST		OUT OF AE
Mobile Home	ANDREWS ST		OUT OF AE
Mobile Home	ANDREWS ST		OUT OF AE

Mobile Home	ANDREWS ST			OUT OF AE
Mobile Home	ANDREWS ST			OUT OF AE
Mobile Home	ANDREWS ST			OUT OF AE
Mobile Home	ANDREWS ST			OUT OF AE
Principal Structure	JACOBS ST			OUT OF AE
Principal Structure	JACOBS ST			OUT OF AE
Principal Structure	RIVERSIDE AVE	PO BOX 2	70 HARTFORYANKEE GAS SERVICES COMPANY	OUT OF AE

			A MAP CHANGE
			1=ADDED
Building Type	MAILING ADDRESS	OWNER NAME	-1=REMOVED
Principal Structure	10 DUNCAN ST	GHIGLIA ANDREA + LYNN	IN TO A
Principal Structure	104 VINE RD	ZETTERVALL KYLE P	IN TO A
Principal Structure	111 UNION ST	ONE REALTY LLC	IN TO A
Principal Structure	111 UNION ST	ONE REALTY LLC	IN TO A
Principal Structure	1145 BURLINGTON AVE	DELFINO WILLIAM + DELFINO KAREN +DELFIN	OIN TO A
Principal Structure	115 MOUNTAIN VIEW AVE	GENUARIO ROBERT LOUIS JR	IN TO A
Principal Structure	115 REDWOOD DR	LEWICKI JASON R + DOUCETTE KATELIN M	IN TO A
Principal Structure	115 VINE RD	HORAN GERALDINE D	IN TO A
Principal Structure	120 SHEFFIELD LA	STAFFORD SCOTT D + JENNIFER M	IN TO A
Principal Structure	121 MOUNTAIN VIEW AVE	TEDD NANCY A	IN TO A
Principal Structure	123 VINE RD	BOZZUTO PHILIP + VOISINE CASEY	IN TO A
Principal Structure	130 SHEFFIELD LA	LEE EDWARD D JR + BARBARA R TRUSTEES	IN TO A
Principal Structure	138 SHEFFIELD LA	GUERARD DENNIS + DALE	IN TO A
Principal Structure	141 BETHS AVE	VERNON PROPERTY LLC	IN TO A
Principal Structure	149 BETHS AVE	MITCHELL SCOTT A	IN TO A
Principal Structure	15 CIRCLE ST	CENTRAL STREET APARTMENTS LLC	IN TO A
Principal Structure	15 UNION ST	DEPAROLIS FRANK	IN TO A
Principal Structure	151 SHEFFIELD LA	FORTIN JACQUELINE	IN TO A
Principal Structure	152 SHEFFIELD LA	HARRINGTON FREDERICK J + LINDA M	IN TO A
Principal Structure	159 SHEFFIELD LA	MCCARTHY MICHAEL J + DAWN M	IN TO A
Principal Structure	162 SHEFFIELD LA	FORK FOUR PROPERTIES LLC	IN TO A
Principal Structure	176 ASHLEY RD	KALUZNY TADEUSZ J + DONNA	IN TO A
Principal Structure	183 SHEFFIELD LA	LAVOIE HERMAS J JR	IN TO A
Principal Structure	184 PERKINS ST	DEANGELO SCOTT M + SHERYL A SURV	IN TO A
Principal Structure	188 ASHLEY RD	RYAN JOHN P	IN TO A
Principal Structure	195 CENTRAL ST	195-201 CENTRAL STREET LLC	IN TO A

Principal Structure	199 ASHLEY RD	FITZGERALD FREDERICK M + KATHLEEN A	IN TO A
Principal Structure	200 ASHLEY RD	HAUER ARMIN + KARIN	IN TO A
Principal Structure	210 ASHLEY RD	BEAUDET LORI A	IN TO A
Principal Structure	216 CENTRAL ST	CENTRAL STREET APARTMENTS LLC	IN TO A
Principal Structure	219 CENTRAL ST	CENTRAL BRISTOL PROPERTIES LLC	IN TO A
Principal Structure	23 TROUT BROOK DR	LEVINE LAURA J BARONE + LEVINE RICHARD H	IN TO A
Principal Structure	269 BIRCH ST	JENNINGS LECIUS R + JENNINGS SANDRA A	IN TO A
Principal Structure	27 UNION ST	DEPAROLIS FRANK	IN TO A
Principal Structure	277 BIRCH ST	DELL'AERA DAVID + JERRICA	IN TO A
Principal Structure	28 KATHERN ST	DOYON STEPHEN L + DIANE B	IN TO A
Principal Structure	28 TROUT BROOK DR	TOEWS DONALD + PELLETIER JAY	IN TO A
Principal Structure	286 SHRUB RD	PHILLIPS SEAN	IN TO A
Principal Structure	29 ARLENE DR	SCHMELDER JAMES R	IN TO A
Principal Structure	29 BURTON ST	CIQUERA MATTHEW J	IN TO A
Principal Structure	321 STONECREST DR	SHERIDEN WOODS LANDLORD LLC	IN TO A
Principal Structure	334 WEST WASHINGTON ST	BOUCHER BARBARA A	IN TO A
Principal Structure	36 CARPENTER AVE	RAJPUT BURHAM + IRUM SAIMA	IN TO A
Principal Structure	36 LOUISIANA AVE	GRACE BAPTIST CHURCH	IN TO A
Principal Structure	37 RICH LA	GONZALEZ VICTOR	IN TO A
Principal Structure	38 GEORGE ST	KENNEDY WILLIAM F JR	IN TO A
Principal Structure	380 KING ST	DB HOMES LLC	IN TO A
Principal Structure	39 TROUT BROOK DR	MULDOON JOHN J	IN TO A
Principal Structure	40 SENECA RD	STOCKMAN SHARON B	IN TO A
Principal Structure	43 ARLENE DR	MACDONALD DATHAN + SARAH + BOWDEN KE	IN TO A
Principal Structure	44 GEORGE ST	44 GEORGE STREET LLC	IN TO A
Principal Structure	454 MAPLE AVE	ALIBOZAK EVELYN	IN TO A
Principal Structure	462 MAPLE AVE	FLAHERTY JOSEPH T JR + JENNIFER L	IN TO A
Principal Structure	470 KING ST	GAFFNEY CASEY	IN TO A
Principal Structure	5 ARLENE DR	FISCHER GALE JUDITH	IN TO A

Principal Structure	50 GEORGE ST	DELL'AERA JONATHAN	IN TO A
Principal Structure	50 LOUISIANA AVE	SEQUENZIA CONCETTA G	IN TO A
Condominium	506 KING ST		IN TO A
Principal Structure	56 GEORGE ST	HALLE RITA A	IN TO A
Principal Structure	56 LOUISIANA AVE	ACEVEDO ANGELO L + MELBA M	IN TO A
Principal Structure	611 NORTH MAIN ST	G LAVIERO REALTY LLC	IN TO A
Principal Structure	62 LOUISIANA AVE	MALDONADO RAMON	IN TO A
Principal Structure	63 HOLT PL	FREDERICKS TIMOTHY M	IN TO A
Principal Structure	63 RICH LA	WARNAT BRIAN THOMAS + MARLA BETH	IN TO A
Principal Structure	69 HOLT PL	SOUCY PETER L	IN TO A
Principal Structure	7 SPARK AVE	SAUCIER ROLAND A + SHERRI L SURV	IN TO A
Principal Structure	71 MOUNTAIN VIEW AVE	SWIECINSKI ADAM + BEATA E +	IN TO A
Principal Structure	71 RICH LA	ABUCEWICZ DANIELLE COLOSIMO + ABUCEWI	CIN TO A
Principal Structure	74 GEORGE ST	CAMMARIERE ANTHONY	IN TO A
Principal Structure	77 MOUNTAIN VIEW AVE	LAGASSIE MICHAEL B + LINDA	IN TO A
Principal Structure	84 ELIZABETH RD	BARTOLABA KRISTINE	IN TO A
Principal Structure	880 BURLINGTON AVE	LOWE JAMES	IN TO A
Principal Structure	90 SOUTH ST	YARDE REALTY CO	IN TO A
Principal Structure	91 REDWOOD DR	SABATINO DAVID JOHN THOMAS	IN TO A
Principal Structure	99 REDWOOD DR		IN TO A
Principal Structure	BETHS AVE		IN TO A
Principal Structure	BETHS AVE		IN TO A
Structure - not in Brist	MINES RD		IN TO A
Principal Structure	1 DIVINITY ST	HEARTHSTONE HOLDINGS LLC	IN TO AE
Principal Structure	100 ANDREWS ST	MASTROPIERO JOHN	IN TO AE
Principal Structure	106 ANDREWS ST	SANTOS LUIS ARTURO LOPEZ	IN TO AE
Principal Structure	106 CANDY LA	ROSHON RICHARD	IN TO AE
Principal Structure	107 CANDY LA	STUART WILLIAM G + RITA M	IN TO AE
Principal Structure	11 REVERE DR	SUTULA CONSTANCE R	IN TO AE

Principal Structure	110 CENTRAL ST	STEVE F LAVOIE AND DIANE J LAVOIE-PELLETIE	IN TO AE
Principal Structure	116 CENTRAL ST	STEVE F LAVOIE AND DIANE J LAVOIE-PELLETIE	IN TO AE
Principal Structure	118 ANDREWS ST	GARGAS RYSZARD +MARGERITA O	IN TO AE
Principal Structure	125 CENTRAL ST	VITRANO FAMILY LLC	IN TO AE
Principal Structure	126 FALLS BROOK RD	LEMERE MARY A	IN TO AE
Principal Structure	13 DIVINITY ST	O'DONNELL DEBORAH	IN TO AE
Principal Structure	135 MAPLE AVE	RYERSON DANIELLE	IN TO AE
Principal Structure	141 WEST ST	SOUTH SIDE REALTY LLC	IN TO AE
Principal Structure	149 WEST ST	SOUTH SIDE REALTY LLC	IN TO AE
Principal Structure	15 REVERE DR	SUTULA DANIEL P	IN TO AE
Principal Structure	15 TROUT BROOK DR	TROUT BROOK PROPERTY LLC	IN TO AE
Principal Structure	15 WILLOW BROOK RD	GALIPO DOREEN + CASTONGUAY SUSAN	IN TO AE
Principal Structure	155 STEVENS ST	BENGTSO JANICE	IN TO AE
Principal Structure	17 EDROW RD	MCINTYRE GAIL HULTEN	IN TO AE
Principal Structure	173 BROAD ST	BROAD STREET CHAPULIS LLC	IN TO AE
Principal Structure	187 WEST WASHINGTON ST	GERBER ANNETTE + MAZEROLLE JEFFREY JR	IN TO AE
Principal Structure	188 TERRYVILLE AVE	DIPIETRO DANA	IN TO AE
Principal Structure	189 WEST ST	191 WEST STREET LLC	IN TO AE
Principal Structure	192 TERRYVILLE AVE	MUTE RICHARD E	IN TO AE
Principal Structure	198 TERRYVILLE AVE	MUTE RICHARD E	IN TO AE
Principal Structure	199 TERRYVILLE AVE	TURNER JAMES + LORI	IN TO AE
Principal Structure	2 PARK ST	STATE OF CONNECTICUT, DEPT OF TRANSPORT	IN TO AE
Principal Structure	205 WEST WASHINGTON ST	PAULINO TINA A + JEFFREY J	IN TO AE
Principal Structure	23 TROUT BROOK DR	LEVINE LAURA J BARONE + LEVINE RICHARD H	IN TO AE
Principal Structure	23 WILLOW BROOK RD	MUNAFO LAURA	IN TO AE
Principal Structure	24 REVERE DR	SALIH SAMER E	IN TO AE
Principal Structure	25 MIDDLE ST	25, 27 & 45 MIDDLE STREET LLC	IN TO AE
Principal Structure	25 REVERE DR	NYERICK JOAN S	IN TO AE
Principal Structure	259 LOUISIANA AVE	PKON PROPERTIES LLC	IN TO AE

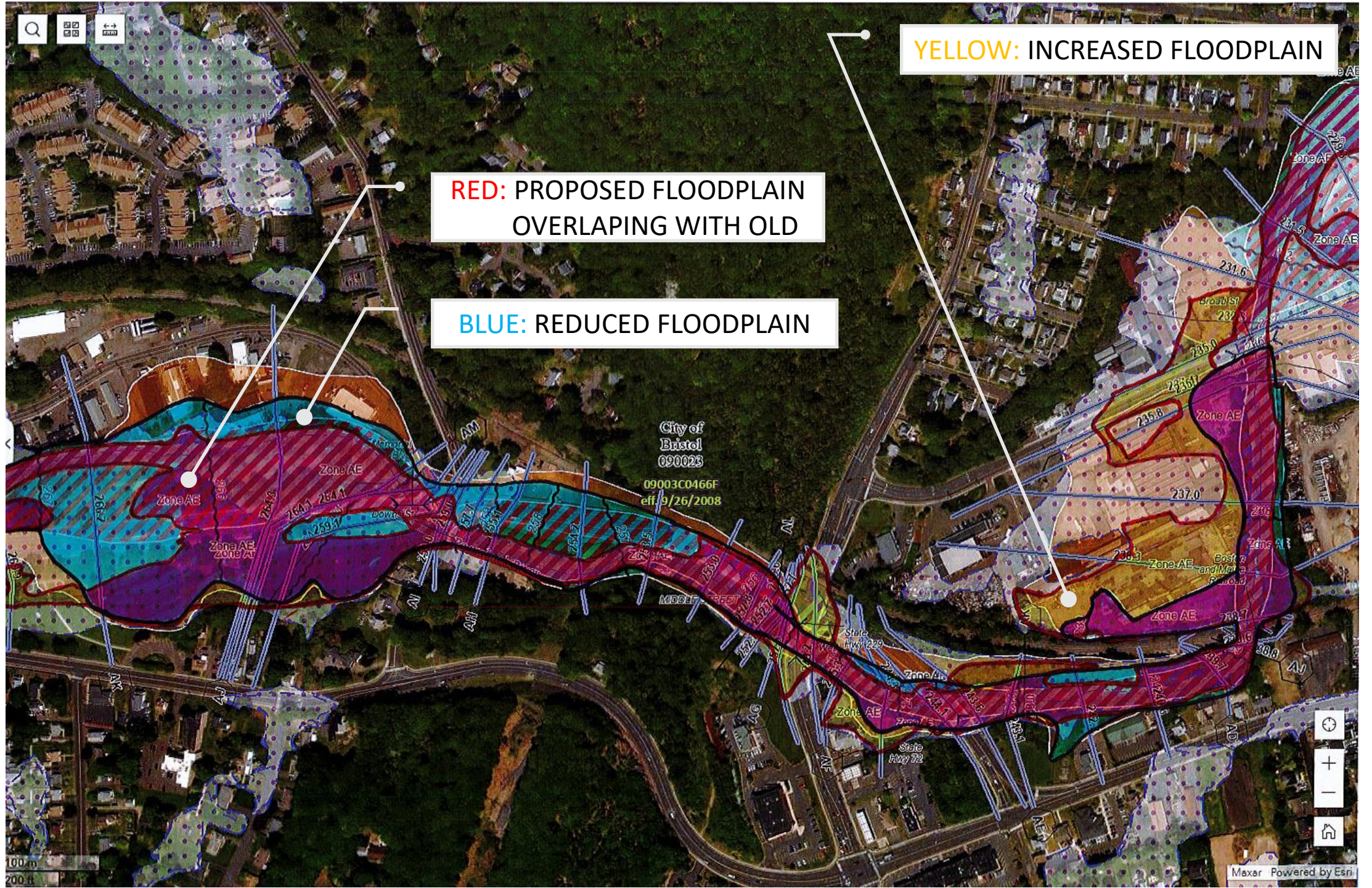
Principal Structure	26 MUZZY ST	USALA JOAN	IN TO AE
Principal Structure	26 RICHARD CT	BARTLEY DAVID + AMANDA	IN TO AE
Principal Structure	267 LOUISIANA AVE	BHAGALOO RAMCHAND	IN TO AE
Principal Structure	269 WEST WASHINGTON ST	COROLLA PROPERTIES LLC	IN TO AE
Principal Structure	281 WEST WASHINGTON ST	SHIELDS PATRICIA + STEVEN	IN TO AE
Principal Structure	29 RICHARD CT	KALLBERG CAROL Y	IN TO AE
Principal Structure	290 LOUISIANA AVE	ROYS WILBUR J + CATHERINE M	IN TO AE
Principal Structure	291 WEST WASHINGTON ST	PLONSKI FLORENCE J	IN TO AE
Principal Structure	30 NEW ST	SALLSTROM PATRICIA B	IN TO AE
Principal Structure	301 WEST WASHINGTON ST	NAGRABSKI DAVID J	IN TO AE
Principal Structure	31 REVERE DR	NYERICK JOAN S	IN TO AE
Principal Structure	31 WILLOW BROOK RD	GRAB PHYLLIS C	IN TO AE
Principal Structure	320 SHRUB RD	ROY ROGER K	IN TO AE
Principal Structure	332 SHRUB RD	MORYTKO ERIN L	IN TO AE
Principal Structure	34 JAMES ST	RODRIGUEZ DAVID M	IN TO AE
Principal Structure	342 SHRUB RD	SAWE KARIN	IN TO AE
Principal Structure	345 MIX ST	CITY OF BRISTOL	IN TO AE
Principal Structure	35 REVERE DR	SUTULA DANIEL P	IN TO AE
Principal Structure	352 SHRUB RD	LAMARRE KYLE	IN TO AE
Principal Structure	36 JAMES ST	SKINDARAS JULIUS	IN TO AE
Principal Structure	36 RICHARD CT	REBISZ JERZY + WIOLETA	IN TO AE
Principal Structure	36 WILLOW BROOK RD	DESCHAIINE PHILIP A + LINDA M	IN TO AE
Principal Structure	362 SHRUB RD	SIROIS MARY ANN	IN TO AE
Principal Structure	37 BROAD ST	CEBALLOS JOHN + SANCHEZ MARGARITA	IN TO AE
Principal Structure	397 MIX ST	GRANT JOSIE M	IN TO AE
Mobile Home	40 MATTHEWS ST		IN TO AE
Mobile Home	40 PRESTON ST	TJR REALTY LLC	IN TO AE
Principal Structure	405 MIX ST	MELANSON DANIEL J +	IN TO AE
Principal Structure	41 REVERE DR	NYERICK JOAN S	IN TO AE

Principal Structure	41 RICHARD CT	TOURVILLE LAUREL M	IN TO AE
Principal Structure	41 WILLOW BROOK RD	COAN THERESA C	IN TO AE
Principal Structure	417 MIX ST	MACRI NUNZIO + GISELDA	IN TO AE
Principal Structure	418 JEROME AVE	ANGERS GERARD R	IN TO AE
Principal Structure	43 WINDING BROOK RD	OUELLETTE SHERYL L + JOEL D	IN TO AE
Principal Structure	430 JEROME AVE	MAZREK RICHARD ADAM	IN TO AE
Principal Structure	434 JEROME AVE	BUCKLEY FARMS LLC	IN TO AE
Principal Structure	435 MIX ST	LAVIGNE WILLIAM E	IN TO AE
Principal Structure	436 BROAD ST	A&R LLC	IN TO AE
Principal Structure	444 JEROME AVE	DOWNS DIANA	IN TO AE
Principal Structure	445 MIX ST	MUEHLFELD CHRISTOPHER M	IN TO AE
Principal Structure	45 MIDDLE ST	25, 27 & 45 MIDDLE STREET LLC	IN TO AE
Principal Structure	452 BROAD ST	GAMBLE NICHOLAS E	IN TO AE
Principal Structure	455 MIX ST	KOZUCH HENRY	IN TO AE
Principal Structure	46 PRESTON ST	DGG DEVELOPMENT LLC	IN TO AE
Principal Structure	46 RICHARD CT	HARVEY BEATA + MATTHEW J	IN TO AE
Principal Structure	46 WILLOW BROOK RD	BURKE MYLIN + STEVEN	IN TO AE
Principal Structure	475 BROOK ST	MAGISANO GEOFFREY J + FOURNIER ALISSA	IN TO AE
Mobile Home	482 BROAD ST		IN TO AE
Mobile Home	482 BROAD ST		IN TO AE
Mobile Home	482 BROAD ST		IN TO AE
Mobile Home	482 BROAD ST		IN TO AE
Principal Structure	49 PRESTON ST	SWANSON BRYAN W + RITA D	IN TO AE
Principal Structure	49 WILLOW BROOK RD	PIPER LINDA L	IN TO AE
Principal Structure	51 RICHARD CT	MERRIFIELD THOMAS H + JOYCE A	IN TO AE
Principal Structure	52 PRESTON ST	DONOVAN MARC + SULLIVAN MEGAN	IN TO AE
Principal Structure	55 WINDING BROOK RD	HANG HAN H + HIEN H	IN TO AE
Principal Structure	550 BROAD ST	550 BROAD LLC	IN TO AE
Principal Structure	550 BROAD ST	550 BROAD LLC	IN TO AE

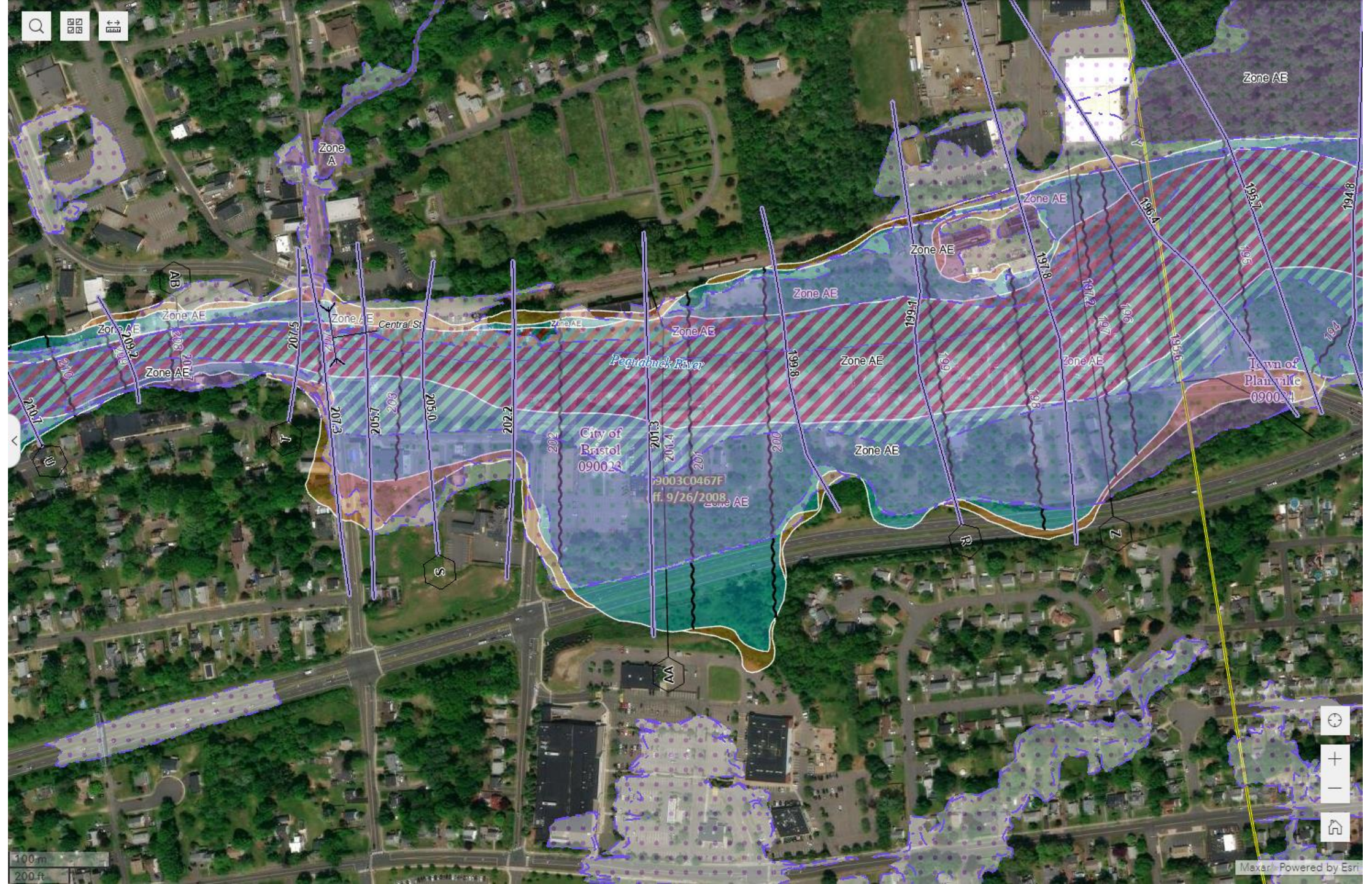
Principal Structure	56 NEW ST	GAITY JANET	IN TO AE
Principal Structure	57 PRESTON ST	MARCANO JOANNE	IN TO AE
Principal Structure	57 WILLOW BROOK RD	EWINGS ROBERT B + MELISSA	IN TO AE
Principal Structure	58 PRESTON ST	DGG ENTERPRISES LLC	IN TO AE
Principal Structure	60 RICHARD CT	LAPLANTE ZACHARY C + WIELAND KATIE L	IN TO AE
Principal Structure	64 MATTHEWS ST	IVY DRIVE LLC	IN TO AE
Principal Structure	64 PRESTON ST	INGHAM CARLENA	IN TO AE
Principal Structure	67 WINDING BROOK RD	NOGUEIRA THAYLON SILVA	IN TO AE
Principal Structure	71 RICHARD CT	MAKULA JOSHUA + JENNIFER C	IN TO AE
Principal Structure	72 PRESTON ST	JARAMILLO JOHN + ROSA M	IN TO AE
Principal Structure	72 RICHARD CT	POMERLEAU PATRICIA O'BRIEN	IN TO AE
Principal Structure	74 BARBARA RD	GATES ROBERT	IN TO AE
Principal Structure	75 MISSAL AVE	GRUBY WILLIAM RICHARD + SOPHIE	IN TO AE
Principal Structure	76 JOHN AVE	KEO CHOR + CHHLEAT	IN TO AE
Principal Structure	8 LOHAVEN RD	MARTINELLI LINDA S	IN TO AE
Principal Structure	823 FARMINGTON AVE	AYARI LLC	IN TO AE
Principal Structure	839 FARMINGTON AVE	LAMONICOS RESTAURANT INC ET AL	IN TO AE
Principal Structure	84 ANDREWS ST	CARRIER CONSTRUCTION INC	IN TO AE
Principal Structure	889 FARMINGTON AVE	889 FARMINGTON APARTMENTS CORP	IN TO AE
Principal Structure	893 FARMINGTON AVE	RIVERS PLAZA LLC	IN TO AE
Principal Structure	9 DIVINITY ST	BLUE CASCADES LLC	IN TO AE
Principal Structure	900 JEROME AVE	CURYLO DANIEL D + ROBIN	IN TO AE
Principal Structure	91 BARNES ST	FERRO DENISE	IN TO AE
Principal Structure	92 MISSAL AVE	PATTERSON LEONARD FRANK + PATTERSON N	IN TO AE
Principal Structure	94 CANDY LA	CABAN ELBANELLIE	IN TO AE
Principal Structure	97 CANDY LA	PELLETIER ANNA M	IN TO AE
Principal Structure	99 ANDREWS ST	ARNSON DANIEL	IN TO AE

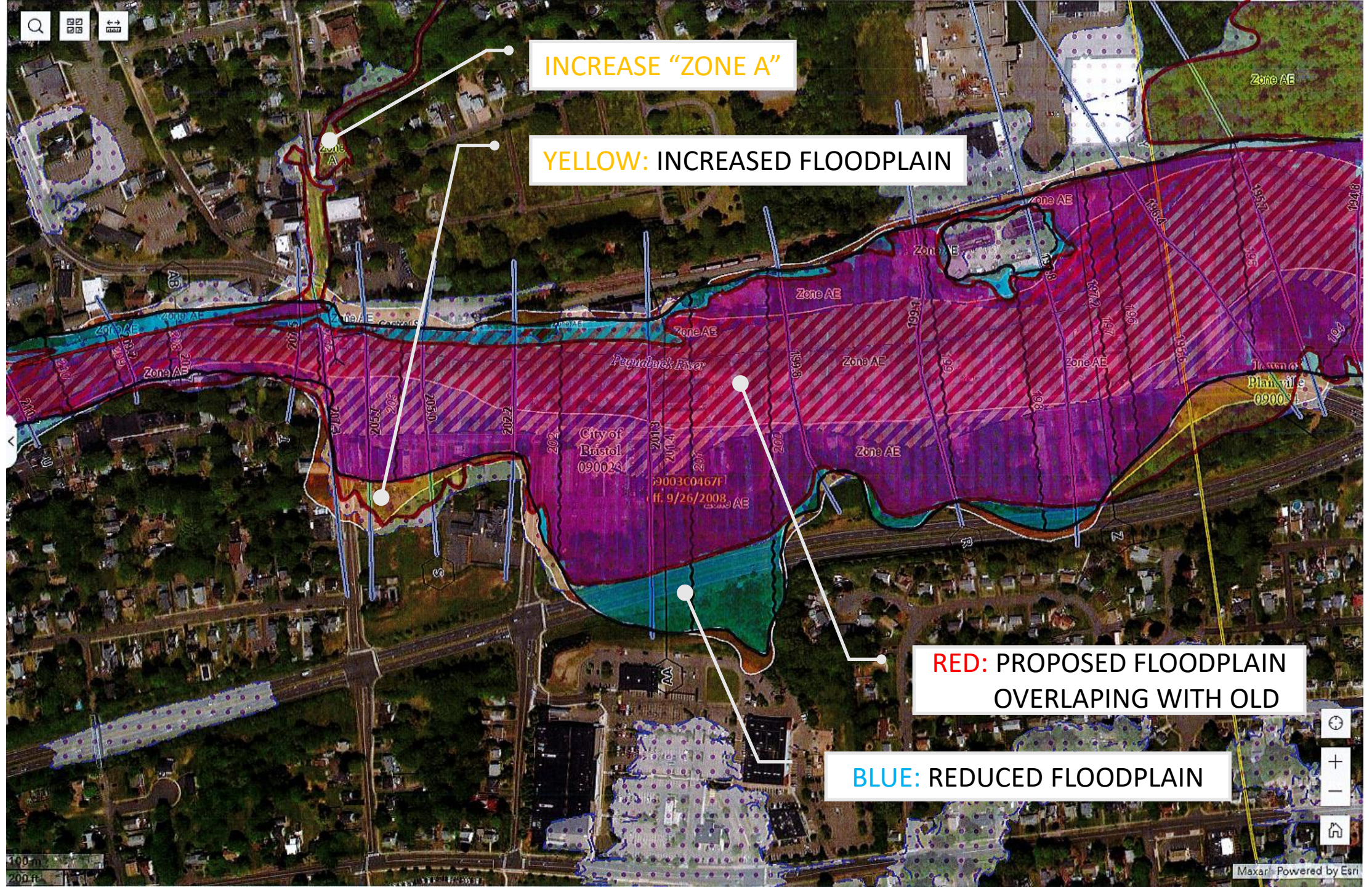














Department of Public Works | 860.584.6125

MEMORANDUM

DATE: May 30, 2025 updated August 28, 2025

TO: Mayor Jeffrey Caggiano
Flood Erosion Control Board
Board of Public Works
FROM: Raymond A. Rogozinski, P.E., Director of Public Works

RE: BPW – BOARD OF PUBLIC WORKS - CITY MS4 STEERING COMMITTEE – SUMMARY OF MS4 REGULATIONS & STORM WATER TESTING

The Department of Public Works oversees the administration of the Connecticut General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (“MS4 Permit”), Federal Clean Water Act (“CWA”) Permit No. CTR030042. The permit objective is to protect water quality and achieve the water quality established in Federal Clean Water Act. The BMPs measures to achieve these measures are in the Stormwater Management Plan, and are organized into six categories of Minimum Control Measures:

1. Public education and outreach
2. Public participation
3. Illicit discharge detection and elimination (“IDDE”)
4. Construction stormwater management
5. Post-construction stormwater management
6. Pollution prevention and good housekeeping

Pursuant to the permit, the Department of Public Works is required to address each MS4 BMP permit component on a yearly basis. As the BPW MS4 Committee is aware, the City has been notified and responded to an EPA audit request for MS4 compliance. A portion of the response was provided by the Water & Sewer Department, and DPW provided information relating to MS4 storm water.



Department of Public Works | 860.584.6125

As a result of the MS4 review, there is a need to perform sampling and testing of City storm drainage outfalls. Not all outfalls require testing, only outfalls to impaired water must be tested. In Bristol, the Pequabuck River and Coppermine Brook are classified as impaired. To comply with the MS4 regulations, 41 of the 92 storm drainage outfalls to the referenced waters must be tested by DPW in 2025. The testing must be performed during a storm event when the outfall is discharging. The testing must occur within the first six hours of a storm, and a “qualifying” storm consists of a rain event that proceeds a dry period of at least 72 hours. The intent is to obtain a storm water sample during the first “flush” associated with the runoff of a storm event. Each sample shall be tested for E. Coli, total phosphorus, and turbidity. Analysis for E. Coli and total phosphorus will be performed by a certified laboratory. Turbidity tests will be performed by DPW Engineering inspectors, using a turbidity meter in the field at the time of sampling. The estimated testing cost to analyze 41 samples is \$3,000 and the required turbidity meter is \$1,100. Funding for the testing meter will be provided through the RIF fund (City appropriation of \$150,000). Once sampling of the 42 outfalls is completed in 2025, sampling requirements will be reduced to 6 samples each year.

To assist the Department of Public Works in implementing the storm water sampling, the Department procured the services of BL Company Inc. to prepare a Stormwater Sampling Plan, including training of DPW Engineering staff. Links to the sampling plan, overall outfall map, and storm drainage location maps is provided below:

BL Storm Water Sampling Plan:

<https://www.bristolct.gov/DocumentCenter/View/49365/Stormwater-sampling-plan>

Overall Storm Drainage Outfall Map:

<https://www.bristolct.gov/DocumentCenter/View/49366/Outfalls-map>

Storm Water Drainage Location Maps:

<https://www.bristolct.gov/DocumentCenter/View/49364/wet-sample-locations>

City of Bristol
Public Work Department
111 North Main Street
Bristol, CT 06010
www.bristolct.gov



Department of Public Works | 860.584.6125

In addition, please find the links below:

CT DEEP MS4 Permit & Training Information:

<https://nemo.uconn.edu/ms4/>

City's 2024 annual report prepared by the Department of Public Works

<https://ct-bristol2.civicplus.com/1053/Municipal-Separate-Storm-Sewer-System-MS>

EPA audit request, along with the latest Department of Public Works and Sewer Department response:

<https://blcompanies.files.com/f/a72bf25ca201562f>

It should be noted that there are new CT DEEP proposed regulations for MS4 Storm Water. Therefore, there may be revisions to the testing program currently being implemented by the Department. In addition to City MS4 stormwater permit for discharge from City Streets, the Department has similar permits and requirements for Industrial MS4.

The DPW performed stormwater “wet” sampling of ten outfalls on Thursday August 21, 2025 (results pending). DPW was advised that EPA performed illicit discharge sampling of four outfalls on May 27, 2025. The results of two of the four outfalls exceeded limits. See attached DPW response dated August 27, 2025. DPW resampling of outfalls performed on August 28, 2025.

Please feel free to contact me with any questions or concerns at 860-584-6113.



REGION 1

NEW ENGLAND REGIONAL LABORATORY
NORTH CHELMSFORD, MA 01863

Date: Dated as shown on electronic signature(s)

Subject: Bristol, CT Municipal Separate Storm Sewer System (MS4) Sampling Inspection Report
Clean Water Act – National Pollutant Discharge Elimination System

From: Anna Hatke, Inspector
Laboratory Services and Applied Science Division (LSASD)
Field Services Branch 2 (FSB2)

Through: Jerome Keefe, Investigations Team Leader,
LSASD-FSB2

To: Elliot Anderson, Inspector
Enforcement and Compliance Assurance Division (ECAD)- Water Compliance Section 2 (WCS2)

CC: Todd Borci, Manager
ECAD-WCS2

Margarita Chatterton, Inspector
ECAD-WCS1

ANNA HATKE
Digitally signed by ANNA HATKE
Date: 2025.07.22 09:45:13 -04'00'

JEROME KEEFE
Digitally signed by JEROME KEEFE
Date: 2025.07.22 10:33:20 -04'00'

I. Facility Information

- A. Facility Name: Bristol, CT MS4
- B. Facility Location: Bristol, CT 06010
- C. Facility Contact: Raymond A. Rogozinski, Director – Department of Public Works,
raymondrogozinski@bristolct.gov,
860-584-6125
- D. NPDES/MS4 Permit ID: CTR030042

II. Background Information

A. Date/Start time of Reconnaissance Inspection: 05/27/2025 11:43

B. Weather conditions: Sunny, approx. 74°F

C. USEPA Representatives: Anna Hatke, Jerry Keefe, Nafisah Ali, Maura Gould, Elliot Anderson, Margarita Chatterton

D. State/Local Representatives: None attended

A. Date/Start time of Sampling Inspection: 05/28/2025 08:05

B. Weather conditions: Sunny, approx. 65°F

C. USEPA Representatives: Anna Hatke, Jerry Keefe, Nafisah Ali, Maura Gould, Elliot Anderson, Margarita Chatterton

D. State/Local Representatives: None attended

E. Federally Enforceable Requirements Investigated: Stormwater discharges and certain non-stormwater discharges from the Bristol, CT MS4 are authorized by the National Pollutant Discharge Elimination System (NPDES) General Permit for the Discharge of Stormwater from Small MS4 (hereinafter, the Permit), issued by the Environmental Protection Agency (EPA) Region 1. The city obtained coverage under the Permit with NPDES Permit ID CTR030042.

F. Pollutants Sampled: *E. coli*, *Enterococcus*, Pharmaceuticals and Personal Care Products (PPCPs) Ammonia, Total Chlorine, and Surfactants.

III. Disclaimer:

Unless otherwise noted, this report describes conditions at the facility/property as observed by EPA inspector(s), and/or through records provided to and/or information reported to EPA inspector(s) by facility representatives and as understood by the inspector(s). This report may not capture all operations or activities ongoing at the time of the inspection. This report does not make final determinations on potential areas of concern. Nothing in this report affects EPA's authorities under federal statutes and regulations to pursue further investigation or action.

IV. Type and Purpose of Inspection(s)

The purpose of the reconnaissance inspection was to locate stormwater outfalls which discharge into Pequabuck River and its tributaries, and to identify in-stream sampling locations while noting appearance, presence of flow, and access requirements for sampling inspection(s).

The purpose of the compliance sampling inspection was to identify potential illicit connections or illegal discharges within the Bristol, CT MS4 that may adversely impact the water quality in the Pequabuck River and its tributaries. Samples were collected from 13 locations in accordance with the FSB Investigations Team Stormwater Program Plan.

V. Permittee Details

The City of Bristol occupies approximately 26.4 square miles in Hartford County, CT approximately 13 miles southeast of Hartford, CT. The city shares borders with the municipalities of Burlington to the north, Plainville to the east, Southington to the southeast, Wolcott to the southwest and Plymouth to the west. According to the 2020 U.S. Census, the population of Bristol, CT was 60,833.

VI. 07/27/2024 Reconnaissance Inspection Summary

On May 27, 2025, Anna Hatke, Jerry Keefe, Nafisah Ali, Maura Gould ("the EPA Sampling Team"), and Elliot Anderson and Margarita Chatterton ("the ECAD Inspection Team"), conducted an unannounced reconnaissance inspection of Bristol, CT's MS4 at the locations described in Section VIII. The EPA Teams were not accompanied by facility, city or state representatives. The inspection started at 102 Greene St, Bristol, CT at approximately 11:43. At the time of the inspection, the weather was sunny and approximately 74 °F.

According to National Weather Service (NWS) data for the Shuttle Meadow Reservoir, within the 72 hours prior to the recon inspection date, there was a recorded precipitation total of 0.19 inches. The last precipitation event prior to the inspection occurred on May 25, 2025, with 0.06 inches recorded. According to the Shuttle Meadow Reservoir, in the month (to date) of May, the area observed 8.86 inches of rain, which is approximately 287% of the 30-year normal value of 3.08 inches. According to the US Drought Monitor, as of June 5, 2025, Hartford County is not experiencing any drought conditions.

VII. 07/28/2024 Sampling Inspection Summary

On May 28, 2025, the EPA Sampling Team, and the ECAD Inspection Team, conducted an unannounced compliance sampling inspection of Bristol, CT's MS4 at the locations described in Section VII. The EPA Teams were not accompanied by facility, city or state representatives. The sampling inspection started at 335 Stafford Ave, Bristol, CT at approximately 08:05. At the time of the inspection, the weather was sunny and approximately 65 °F. The inspection concluded at approximately 12:30 at which time both the EPA Sampling Team and the ECAD Inspection Team departed.

According to National Weather Service (NWS) data for the Shuttle Meadow Reservoir, within the 72 hours prior to the inspection date, there was a recorded precipitation total of 0.07 inches. The last precipitation event prior to the inspection occurred on May 27, 2025, with 0.01 inches recorded. According to the Shuttle Meadow Reservoir, in the month (to date) of May, the area observed 8.87 inches of rain, which is approximately 278% of the 30-year normal value of 3.18 inches. According to the US Drought Monitor, as of June 5, 2025, Hartford County is not experiencing any drought conditions.

The sampling locations described in Section VIII were field screened using test kits for ammonia (nitrogen), total chlorine, and surfactants.

In-situ measurements for specific conductivity, salinity, and temperature were also measured using a YSI water quality meter and recorded. Field data were recorded on field data sheets. At each location described in Section VII, the EPA Sampling Team collected a grab sample for E. coli and enterococcus, and PPCP.

The EPA Sampling Team conducted the sampling activities in accordance with the Standard Operating Procedure for the Collection of Chemical and Biological NPDES Water and Wastewater Samples, FSBSOP-NPDES Water Revision 2, 2020.

E. coli samples were collected in a 120mL UV Sterile, pre-preserved bottle with Sodium Thiosulfate. Source Tracking Analysis samples were collected in a 1-L Amber glass teflon lined cap bottle. After each sample collection location, the samples were placed into coolers with ice to maintain an internal temperature of less than 4 degrees Celsius.

Samples intended for E. coli and Enterococcus analysis were then delivered to and analyzed at the CT Department of Public Health Laboratory, located at 395 West St, Rocky Hill, CT 06067. Samples collected for PPCP were delivered to and analyzed at the EPA New England Regional Laboratory (NERL) at 11 Technology Drive, North Chelmsford, MA. Table 1 summarizes the sampling and analytical data.

VIII. Description of Sampling Locations (in order of collection time)

Photographs depicting each sample location as well as contextualizing photos from the reconnaissance conducted on 5/27/25 are included in Appendix A of this report. The EPA Sampling Team collected all samples and made all observations noted for each sampling location.

Jewel1: One circular concrete pipe approximately 2 feet in diameter that widens out into a concrete flume approximately 3 feet in length located at the north end of an un-named park at 335 Stafford Ave, Bristol CT. The outfall discharges into Copper Mine Brook on the southeast side, looking upstream. Flow was estimated to be 3.5 gallon per minute (gpm). Sample was collected at the mouth of the outfall. No notable odor was detected. Color was clear. Turbidity was low and a few suspended organic particulates and leaf litter were observed. See photos 1a. and 1b.

Terry1: One circular corrugated metal outfall encased in concrete approximately 4 feet in diameter located approximately at 249 Terryville Road, Bristol, CT on the southeast side. Flow was estimated to be greater than 20 gpm and discharging into the Pequabuck River. The sample was collected at the mouth of the culvert. No notable odor was detected. Color was clear and turbidity was low with minimum observed organic suspended particulates. Some froth was observed immediately downstream of the outfall. The immediate and surrounding embankment area was populated by Japanese Knotweed. See photo 2.

Mechanic1: One circular corrugated metal culvert approximately 20 feet in diameter conveying a segment of Copper Mine Brook running perpendicularly underneath 76 Mechanic T, Bristol, CT. The culvert is located immediately downstream of the sampling location. Flow through the culvert was high. Sample was collected approximately 1 foot from the from northeast bank of the culvert; immediately upstream of the in-flow end of the culvert. No notable odor was detected. Color was clear. Turbidity was low and leaves were observed in the. See photos 3a. and 3b.

NPark1: In-stream sample of a Pequabuck Branch stream, located at 99 Rockwell Park Road, Bristol, CT. Three separate but equivalent concrete culverts approximately 3 feet in diameter with concrete flumes, conveying the branch stream into a single channel. The channeled stream joins the Pequabuck River roughly 100 feet downstream on the southeast bank, looking upstream. Sample was collected at the mouth of the center culvert. No notable odor was detected. Color was clear. Turbidity was low and no notable suspended particulates were observed. The immediate and surrounding embankment area was populated by Japanese Knotweed. See photos 4a., 4b. and 4c.

Blakeslee1: In-stream sample of an un-named stream conveyed through two similar corrugated metal pipes, approximately 5 feet in diameter and located at 104 Blakeslee Street, Bristol, CT. Both culverted flows combined immediately downstream into a singular channel. Sample was collected at the mouth of the downstream end of the left culvert pipe, looking upstream. Flow from the culvert was approximately 5 gpm. No notable odor was detected. Color was clear. Turbidity was low and no notable suspended particulates were observed. Dark algae was observed on the bottom of the culvert. Grass cuttings were noted at the base of the northeast bank looking upstream. See photo 5 and 6.b.

BlakesleeR: In-stream sample of an un-named stream conveyed through two similar corrugated metal pipes, approximately 5 feet in diameter and located at 104 Blakeslee Street, Bristol, CT. Both culverted flows combined immediately downstream into a singular channel. Sample was collected at the mouth of the downstream end of the right culvert pipe, looking upstream. Flow from the culvert was approximately 10 gpm. No notable odor was detected. Color was clear. Turbidity was low and no notable suspended particulates were observed. Dark algae was observed on the bottom of the culvert. Grass cuttings were noted at the base of the northeast bank looking upstream. See photos 6a. and 6b.

Gaylord1: One circular concrete outfall approximately 1.5 feet in diameter located at 85 Gaylord Street, Bristol, CT and discharging into the Pequabuck River. At immediate time of arrival at the outfall, discharge was approximately less than 1 gpm and YSI meter readings were collected. Flow then was then observed to increase to 250 ml/sec. YSI meter readings were re-collected for the increased flow rate and the sample was collected. Sample was taken at the mouth of the outfall on the northwest side of the river, looking upstream. Color was clear-yellow. Turbidity was low and no notable suspended particulates were observed. See photos 7a. and 7b.

Mellen1: In-stream sample taken of an un-named culverted stream, located at 165 Memorial Blvd, Bristol, CT in the Memorial Boulevard Park. The stream daylights for approximately 50 meters after being culverted underneath the Memorial Boulevard Middle School and runs culverted underneath Memorial Blvd, before emptying into the Pequabuck River. Sample was collected at the southeast bank of the daylighted stream, looking upstream, from a half-circle stone culvert, approximately 15 feet in diameter. A musty odor was detected. Color was clear and turbidity was low. Some organic suspended particulates were observed. Some trash was observed in and around the stream. Foliage and grass cuttings were observed on either side of the stream. See photos 8a. and 8b.

Gridley1: In-stream sample of a catch basin located at 221 Gridley Street, Bristol, CT. A corrugated black PVC pipe outfall was discharging into the catch basin on the southwest side of the storm sewer pipe flow direction running west to east. The pipe was discharging with an approximate flow of 1 gpm. Sample was taken approximately 6 inches from the outfall. Color was clear, and turbidity was low. No notable odor was detected, and some suspended particulates were observed. See photo 9.

West1: In-stream sample of an un-named culverted stream daylighting at 40 West St, Bristol, CT. The rectangular concrete culvert conveying the stream was approximately 5 feet by 10 feet. Sample was taken at the mouth of the culvert. Color was clear, and turbidity was low. No overt odor was detected, and no organic suspended particulates were observed. See photo 10a. Approximately 20 feet from the mouth of the rectangular culvert on the south side of the concrete retaining wall, looking upstream, a singular 6-inch terracotta clay pipe outfall was observed. The pipe appeared to be connected to a stormwater catch basin in the adjacent parking lot. Flow was minimal. See photo 10b. The immediate and surrounding embankment area of the stream was populated by Japanese Knotweed. See photos 10a., 10b., and 10c.

Park 1: In-stream sample of an un-named culverted stream daylighting at 88 Park Street, Bristol, CT and emptying into the Pequabuck River. Two approximate 5-foot by 5-foot rectangular concrete culverts were observed with flow only from the right culvert, looking upstream. The left culvert was observed to be dry and filled with rocks and debris. A concrete pad proceeded the culvert for approximately 20 feet. The observed flow of the stream was high. Sample was taken approximately 3 feet from the mouth of the culvert. Color was clear, and turbidity was low. No notable odor was detected, and few organic suspended particulates were observed. Dark green algae was observed growing on the rocks

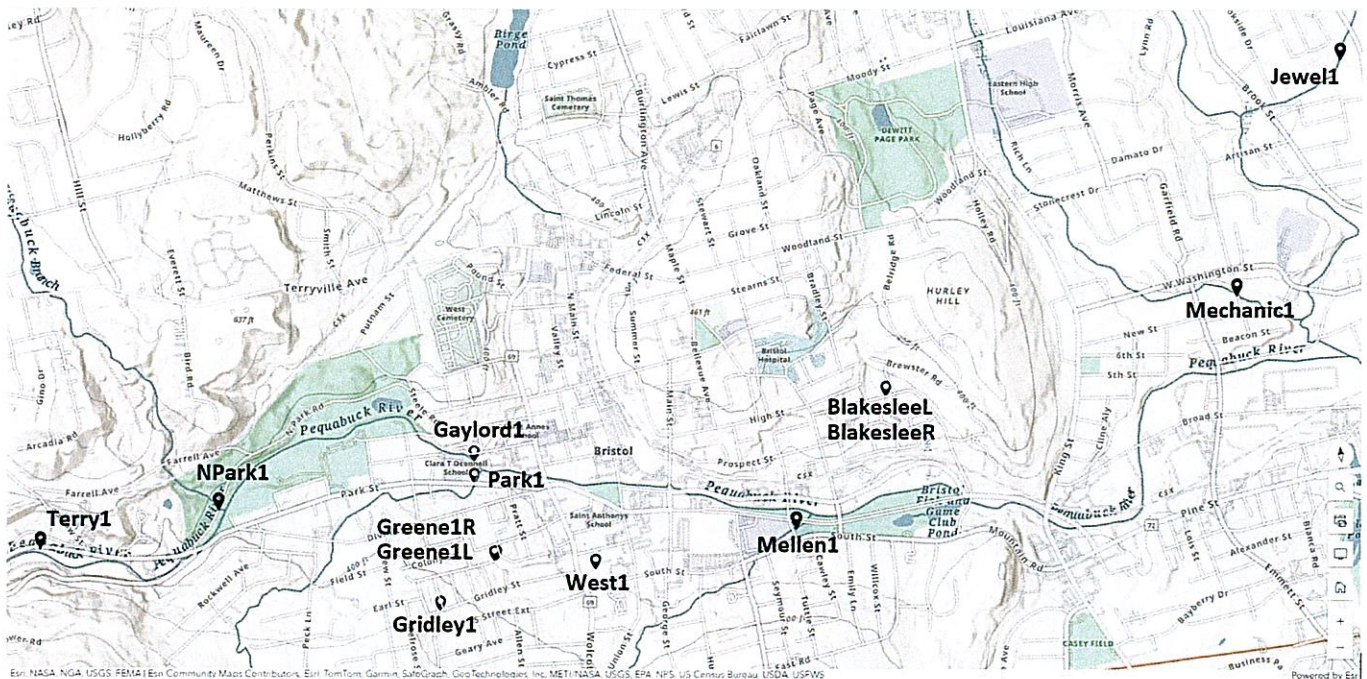
in the stream bed, immediately downstream. See Photo 11a. During the reconnaissance on 5/27, the stream water was notably cloudy, and cold air was felt coming from the right culvert. See photos 11a., and 11b.

Greene1R: In-stream sample of an un-named culverted stream daylighting at 102 Greene St, Bristol, CT. Stream was being conveyed through one concrete half-circle pipe approximately 3 feet in diameter proceeded by a concrete flume. The observed flow from the culvert was around 10 gpm. Sample was taken approximately 6 inches from the mouth of the culvert. Color was clear-light yellow, and turbidity was low. A slightly sour odor was detected, and organic suspended particulates were observed. A field duplicate sample was collected at this location. White algal growth and some trash was observed on the sediment inside of the outfall. The immediate and surrounding embankment area of the stream was populated by Japanese Knotweed. See photo 12. The conveyed stream joined with the discharge from Greene 1L approximately 20 feet downstream. See photos 12 and 13b.

Greene1L: One circular corrugated metal outfall approximately 2 feet in diameter located at 102 Greene St, Bristol, CT and discharging into an un-named stream. Color was clear-light yellow, and turbidity was low. No overt odor was detected, and no suspended particulates were observed. Sample was taken at the mouth of the outfall. The outfall pipe was observed to be rusted out on the bottom. Green moss and white algal growth was observed on the sediment and rocks directly downstream of the outfall. The immediate and surrounding embankment area of the stream was populated by Japanese Knotweed. See Photo 13a. The outfall joined with the culverted stream of Greene 1R approximately 20 feet downstream. See photos 13a., and 13b.

Map of Sample Locations

Note: The GPS coordinates of the sampling locations were derived from arcgis and may be approximate.



Notes:

Sampling Inspectors Anna Hatke and Jerry Keefe collected samples from the following locations from West to East: Terry1, NPark1, Gaylord1, Gridley1, Park1, Greene1R, Greene1L.

Sampling Inspectors Nafisah Ali and Maura Gould collected samples from the following locations from East to West: Jewel1, Mechanic1, BlakesleeL, BlakesleeR, Mellen1, West1

Table 1: Summary of Sampling and Analytical Data

Location	Site ID	Jewel1	Terry1	Mechanic1	NPark1
	Sample Date	05/28/2025	05/28/2025	05/28/2025	05/28/2025
	Sample Time	8:05	8:25	8:45	8:55
Coordinates ¹ (decimal degrees)	North	41.6860973	41.671284	41.676941	41.6722025
	West	-72.9046389	-72.977118	-72.911382	-72.9673240
YSI Meter	Salinity (ppt)	0.3	0.2	0.2	0.1
	Temperature (°C)	14.3	12.6	13.9	12.8
	Conductivity (µS/cm)	586	437.7	473.7	285.8
Field Test Kits (mg/L)	Ammonia	0.25	0.0	0.25	0.0
	Total Chlorine	0.02	0.03	0.03	0.0
	Surfactants	0.25	0.25	0.65	0.25
Bacteria (MPN/100mL)	E. coli	1,100	20	720	<10
	Enterococcus	63	10	1,200	20
PPCPs (ng/L)	Cotinine	16	ND	1.7	ND
	Acetaminophen	32	ND	ND	ND
	Paraxanthine	73	ND	5.5	3.2
	Atenolol	ND	ND	ND	ND
	Caffeine	1400	ND	14	ND
	Metoprolol	4.2	ND	ND	ND
	Diphenhydramine	0.59	ND	ND	ND
	Carbamazepine	ND	ND	0.40	ND

Abbreviations and Notes:

- The coordinates listed in Table 1 are approximate and not exact GPS coordinates of sampling locations.
- See attached laboratory analyses for analytic specific information regarding qualified data.

N/A: Not Analyzed

J : Estimated Value/ Qualified value

ND: Not Detected above Reporting Limit

E. Coli Reportable Limits: 10 MPN/100ml in accordance with the State of Connecticut Department of Public Health's laboratory analysis.

NH₃: Red ≥ 6 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/LCl₂: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L

Surfactants: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L (may give false positive at salinity greater than 1 ppt)

PPCPs: Red ≥ 100x the RL, Orange ≥ 10x the RL, Yellow ≥ 3x the RL; Black < 3x the RL*

*See Reporting Limit (RL) values for each compound in attached Laboratory Report for Source Tracking

EPA notes while there are currently no numerical standards to compare pharmaceutical results against, it is EPA's experience that acetaminophen is the single best bacterial source tracking compound of those listed above, and any detection of this compound may indicate a source of sanitary sewage. With respect to all of the above compounds, when a sanitary sewage source is present, depending on the type of source, distance from the sample location, and the strength of the source, concentrations of these compounds may range from the low ng/l range up to thousands of ng/L.

Table 1: Summary of Sampling and Analytical Data, cont.

Location	Site ID	BlakesleeL	BlakesleeR	Gaylord1
	Sample Date	05/28/2025	05/28/2025	05/28/2025
	Sample Time	9:20	9:23	9:37
Coordinates ¹ (decimal degrees)	North	41.674186	41.674186	41.6731332
	West	-72.930826	-72.930826	-72.9533251
YSI Meter	Salinity (ppt)	0.4	0.5	0.3
	Temperature (°C)	14.3	13.5	17.3/.4
	Conductivity (µS/cm)	751	921	591/576
Field Test Kits (mg/L)	Ammonia	0.25	0.25	0.0
	Total Chlorine	0.03	0.04	0.01
	Surfactants	0.25	0.25	0.25
Bacteria (MPN/100mL)	E. coli	10	<10	20
	Enterococcus	52	85	41
PPCPs (ng/L)	Cotinine	1.4	2.2	1.3
	Acetaminophen	ND	ND	ND
	Paraxanthine	ND	2.7	ND
	Atenolol	ND	ND	ND
	Caffeine	4.0	6.6	12
	Metoprolol	ND	ND	ND
	Diphenhydramine	ND	ND	ND
	Carbamazepine	ND	0.40	ND

Abbreviations and Notes:

- The coordinates listed in Table 1 are approximate and not exact GPS coordinates of sampling locations.
- See attached laboratory analyses for analytic specific information regarding qualified data.

N/A: Not Analyzed

J : Estimated Value/ Qualified value

ND: Not Detected above Reporting Limit

E. Coli Reportable Limits: 10 MPN/100ml in accordance with the State of Connecticut Department of Public Health's laboratory analysis.

NH₃: Red ≥ 6 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/LCl₂: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L

Surfactants: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L (may give false positive at salinity greater than 1 ppt)

PPCPs: Red ≥ 100x the RL, Orange ≥ 10x the RL, Yellow ≥ 3x the RL; Black < 3x the RL*

*See Reporting Limit (RL) values for each compound in attached Laboratory Report for Source Tracking

EPA notes while there are currently no numerical standards to compare pharmaceutical results against, it is EPA's experience that acetaminophen is the single best bacterial source tracking compound of those listed above, and any detection of this compound may indicate a source of sanitary sewage. With respect to all of the above compounds, when a sanitary sewage source is present, depending on the type of source, distance from the sample location, and the strength of the source, concentrations of these compounds may range from the low ng/l range up to thousands of ng/L.

Table 1: Summary of Sampling and Analytical Data, cont.

Location	Site ID	Mellen1	Gridley1	West1	Park1
	Sample Date	05/28/2025	05/28/2025	05/28/2025	05/28/2025
	Sample Time	10:02	10:10	10:35	10:53
Coordinates ¹ (decimal degrees)	North	41.6691616	41.667112	41.6682230	41.672285
	West	-72.9364563	-72.956276	-72.9473432	-72.953172
YSI Meter	Salinity (ppt)	0.4	0.2	0.3	0.2
	Temperature (°C)	14.0	14.4	14.2	13.4
	Conductivity (µS/cm)	838	357.7	664	316
Field Test Kits (mg/L)	Ammonia	0.1	0.0	NA	0.0
	Total Chlorine	0.03	0.03	0.05	0.04
	Surfactants	0.25	0.25	0.25	0.50
Bacteria (MPN/100mL)	E. coli	260	<10	280	<10
	Enterococcus	85	20	75	130
PPCPs (ng/L)	Cotinine	1.8	ND	3.2	0.63
	Acetaminophen	82	ND	11	ND
	Paraxanthine	7.2	ND	29	3.5
	Atenolol	ND	ND	ND	ND
	Caffeine	6.2	ND	120	8.3
	Metoprolol	ND	ND	5.1	ND
	Diphenhydramine	ND	ND	2.4	ND
	Carbamazepine	ND	ND	1.1	0.94

Abbreviations and Notes:

1. The coordinates listed in Table 1 are approximate and not exact GPS coordinates of sampling locations.
2. See attached laboratory analyses for analytic specific information regarding qualified data.

N/A: Not Analyzed

J : Estimated Value/ Qualified value

ND: Not Detected above Reporting Limit

E. Coli Reportable Limits: 10 MPN/100ml in accordance with the State of Connecticut Department of Public Health's laboratory analysis.

NH₃: Red ≥ 6 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/LCl₂: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L

Surfactants: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L (may give false positive at salinity greater than 1 ppt)

PPCPs: Red ≥ 100x the RL, Orange ≥ 10x the RL, Yellow ≥ 3x the RL; Black < 3x the RL*

*See Reporting Limit (RL) values for each compound in attached Laboratory Report for Source Tracking

EPA notes while there are currently no numerical standards to compare pharmaceutical results against, it is EPA's experience that acetaminophen is the single best bacterial source tracking compound of those listed above, and any detection of this compound may indicate a source of sanitary sewage. With respect to all of the above compounds, when a sanitary sewage source is present, depending on the type of source, distance from the sample location, and the strength of the source, concentrations of these compounds may range from the low ng/l range up to thousands of ng/L.

Table 1: Summary of Sampling and Analytical Data, cont.

Location	Site ID	Greene1R	DUP01	Greene1L
	Sample Date	05/28/2025	05/28/2025	05/28/2025
	Sample Time	11:52	11:52	12:00
Coordinates ¹ (decimal degrees)	North	41.669061	41.669061	41.6690208
	West	-72.952751	-72.952751	-72.9527119
YSI Meter	Salinity (ppt)	0.4	0.4	0.3
	Temperature (°C)	13.6	13.6	14.7
	Conductivity (µS/cm)	810	810	661
Field Test Kits (mg/L)	Ammonia	0.25	NA	0.0
	Total Chlorine	0.04	NA	0.04
	Surfactants	0.50	NA	0.25
Bacteria (MPN/100mL)	E. coli	10	<10	<10
	Enterococcus	74	41	85
PPCPs (ng/L)	Cotinine	ND	ND	0.98
	Acetaminophen	ND	ND	ND
	Paraxanthine	ND	ND	2.4
	Atenolol	ND	ND	ND
	Caffeine	ND	ND	5.6
	Metoprolol	ND	ND	ND
	Diphenhydramine	ND	ND	ND
	Carbamazepine	0.48	0.65	ND

Abbreviations and Notes:

1. The coordinates listed in Table 1 are approximate and not exact GPS coordinates of sampling locations.
2. See attached laboratory analyses for analytic specific information regarding qualified data.

N/A: Not Analyzed

J : Estimated Value/ Qualified value

ND: Not Detected above Reporting Limit

E. Coli Reportable Limits: 10 MPN/100ml in accordance with the State of Connecticut Department of Public Health's laboratory analysis.

NH₃: Red ≥ 6 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/LCl₂: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L

Surfactants: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L (may give false positive at salinity greater than 1 ppt)

PPCPs: Red ≥ 100x the RL, Orange ≥ 10x the RL, Yellow ≥ 3x the RL; Black < 3x the RL*

*See Reporting Limit (RL) values for each compound in attached Laboratory Report for Source Tracking

EPA notes while there are currently no numerical standards to compare pharmaceutical results against, it is EPA's experience that acetaminophen is the single best bacterial source tracking compound of those listed above, and any detection of this compound may indicate a source of sanitary sewage. With respect to all of the above compounds, when a sanitary sewage source is present, depending on the type of source, distance from the sample location, and the strength of the source, concentrations of these compounds may range from the low ng/l range up to thousands of ng/L.

Bristol, CT

EPA MS4 Compliance Sampling Inspection

IX. Appendix

Appendix A: Photograph Log

X. Attachments

Attachment A: Laboratory Report for E. coli and Enterococcus Analysis

Attachment B: Laboratory Report for PPCPs (Source Tracking) Analysis

End of Report

Bristol, CT

EPA MS4 Compliance Sampling Inspection

Appendix A

Photograph Log

EPA MS4 Compliance Sampling Inspection



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Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 1b: Jewell1 Downstream (photo taken 05/28/2025 at approx. 8:05) Outfall, located at 335 Stafford Ave, Bristol, CT discharging into Copper Mine Brook. Sample point is indicated by a red X. Red arrow shows outfall flow direction. Blue arrow shows Copper Mine Brook flow direction.

Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 2: Terry 1 (photo taken 05/28/2025 at approx. 8:25) Outfall located at 249 Terryville Rd, Bristol, CT, discharging downstream into the Pequabuck River. Sample point is indicated by a red X. Red arrow shows flow direction.

Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 3a: Mechanic1 (photo taken 05/28/2025 at approx. 8:45) Segment of Copper Mine Brook, running perpendicularly underneath 76 Mechanic St, Bristol, CT, directly upstream of a culvert. Sample point is indicated by a red X. Red arrow shows flow direction. Note: Embedded time stamp on photo is inaccurate.

Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 3b: Mechanic1 (photo taken on 05/27/2025 during reconnaissance) Segment of Copper Mine Brook, running perpendicularly underneath 76 Mechanic St, Bristol, CT, directly upstream of a culvert.

Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 4a: NPark1 (photo taken 05/28/2025 at approx. 8:55) Unidentified tributary stream flowing through 3 equivalently sized culverts, located on 99 Rockwell Park Rd, Bristol, CT, emptying into the Pequabuck River. Sample point is indicated by a red X. Red arrow shows flow direction.

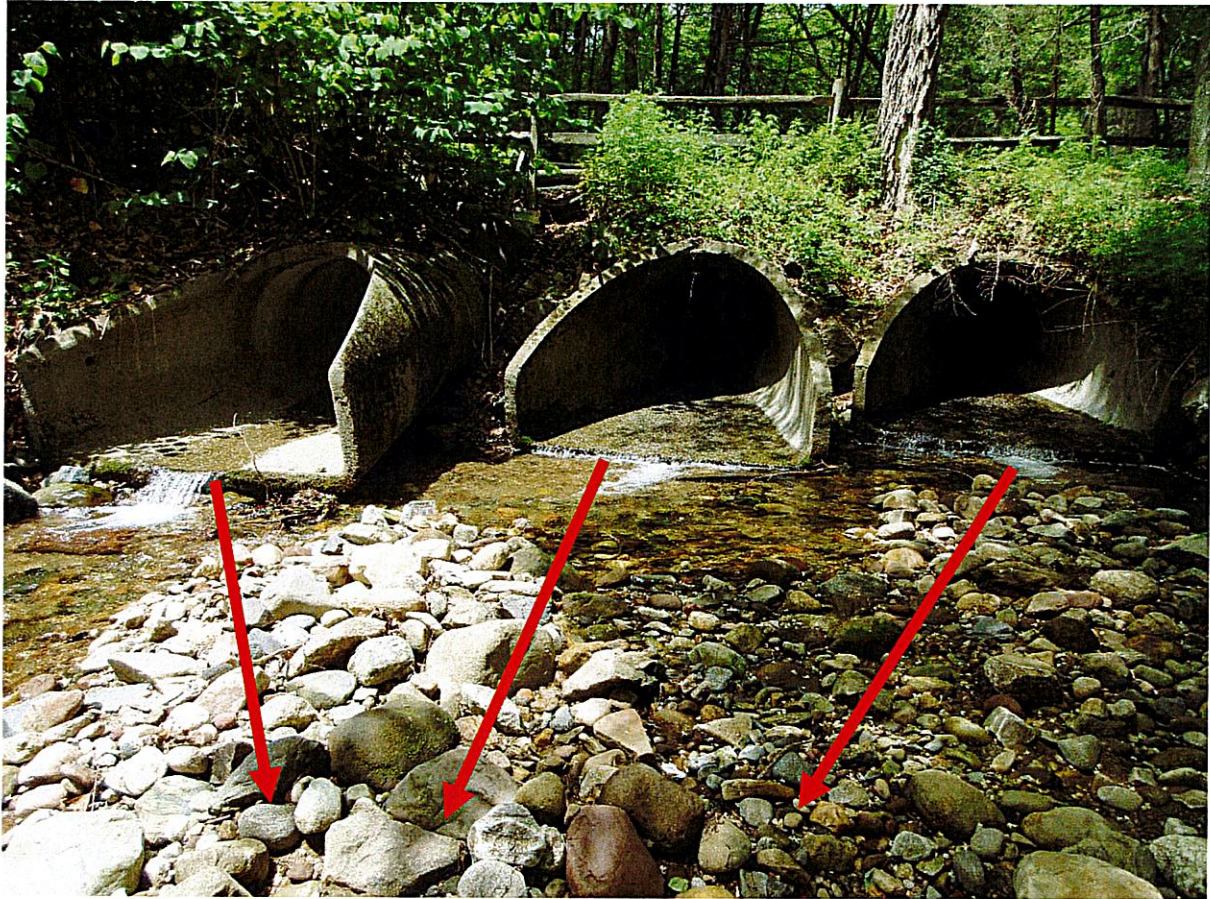


Photo 4b: NPark1 (photo taken 05/27/2025, during reconnaissance) Unidentified tributary stream flowing through 3 equivalently sized culverts, located on 99 Rockwell Park Rd, Bristol, CT, emptying into the Pequabuck River. Red arrows show flow direction. Center culvert is shown in Photo 4a.



Photo 4c: NPark1 (photo taken 05/27/2025, during reconnaissance) Unidentified tributary stream flowing through 3 equivalently sized culverts, located on 99 Rockwell Park Rd, Bristol, CT, emptying into the Pequabuck River. Photo shown depicts the merging of the tributary stream and the Pequabuck River. Red arrow shows flow direction of the unidentified tributary stream. Blue arrow shows flow direction of the Pequabuck River.

Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 5: BlakesleeL (photo taken 05/28/2025 at approx. 9:20) Culverted unidentified tributary stream, located at 104 Blakeslee St, Bristol, CT. Sample point is indicated by red X. Red arrows show flow direction. Note: Embedded time stamp on photo is inaccurate.

Bristol, CT

EPA MS4 Compliance Sampling Inspection

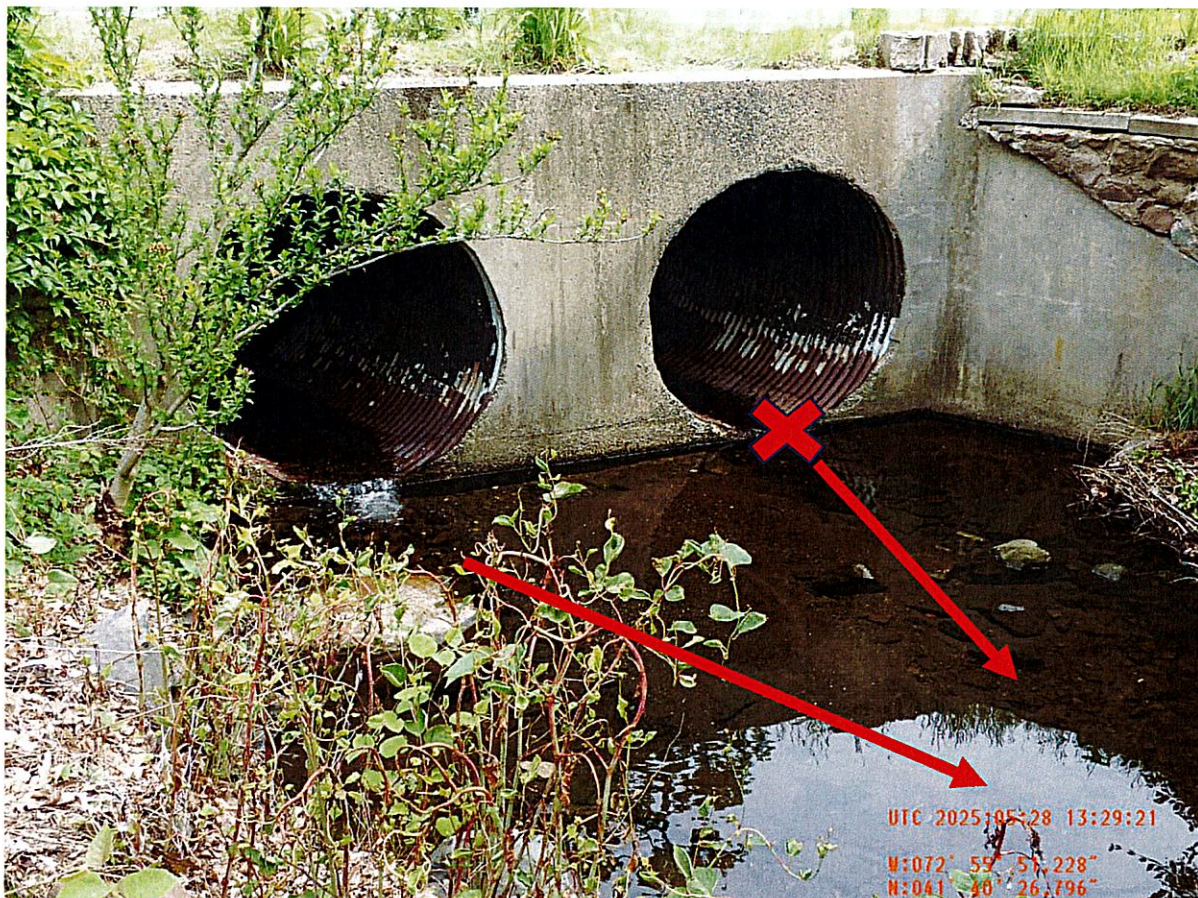


Photo 6a: BlakesleeR (photos taken 05/28/2025 at approx. 9:20) Culverted unidentified tributary stream, located at 104 Blakeslee St, Bristol, CT. Sample point is indicated by a red X. Red arrows show flow direction. Note: Embedded time stamp on photo is inaccurate.

Bristol, CT

EPA MS4 Compliance Sampling Inspection

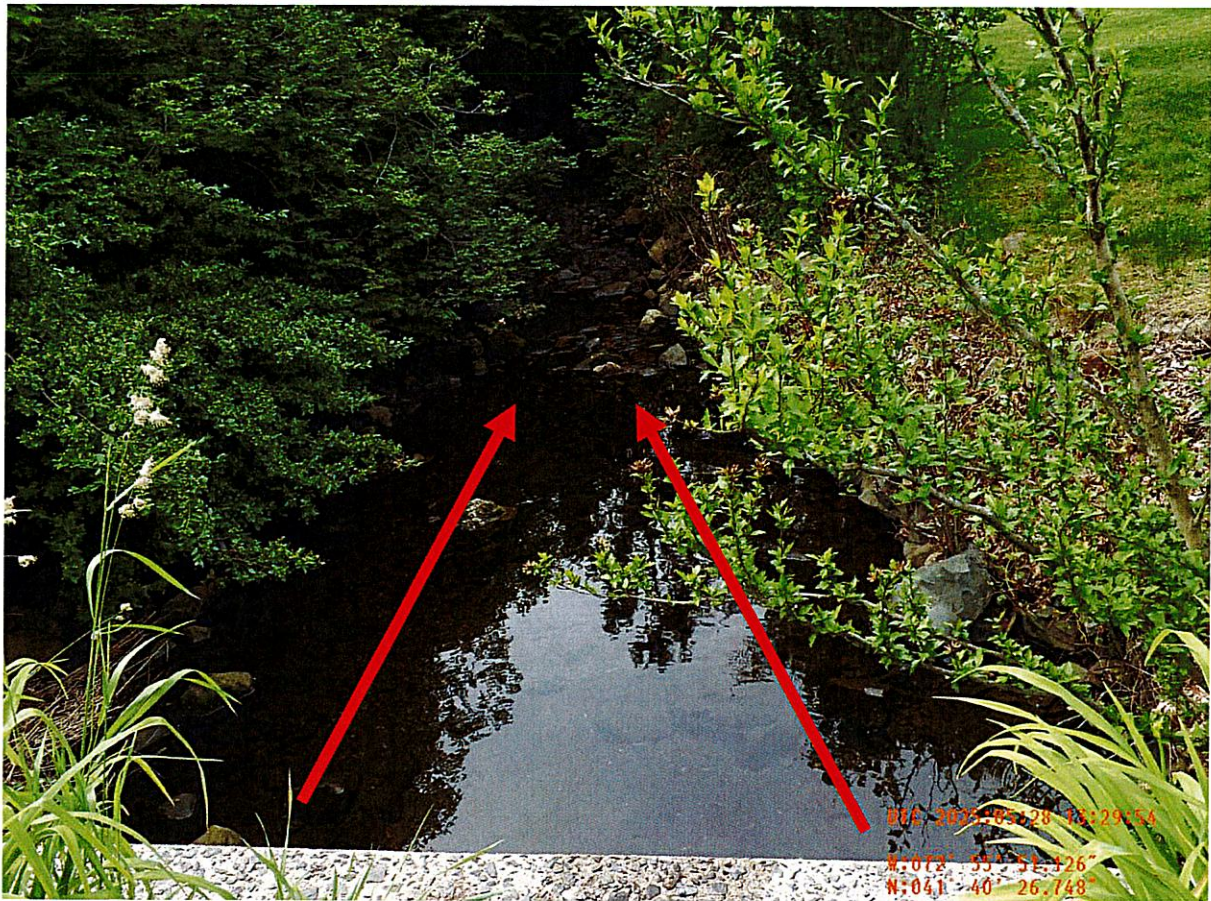


Photo 6b: Blakeslee L-R Downstream (photos taken 05/28/2025 at approx. 9:20) Photo depicts the immediate downstream area from the above culverts, located at 104 Blakeslee St, Bristol, CT. Red arrows show flow direction. Note: Embedded time stamp on photo is inaccurate.



Photo 7a: Gaylord1 (photos taken 05/28/2025 at approx. 9:37) outfall located at 85 Gaylord Street, Bristol, CT, discharging into the Pequabuck River. Sample point is indicated by a red X. Associated photo shows the original flow rate upon arrival, prior to the flow increase and when the sample was collected. Red arrows show flow direction.



Photo 7b: Gaylord1 Downstream (photos taken 05/27/2025 during reconnaissance) Photo depicts the flow from the outfall into the Pequabuck River. Red arrows show flow direction from the outfall. Blue arrow shows flow direction of the Pequabuck River.

Bristol, CT

EPA MS4 Compliance Sampling Inspection

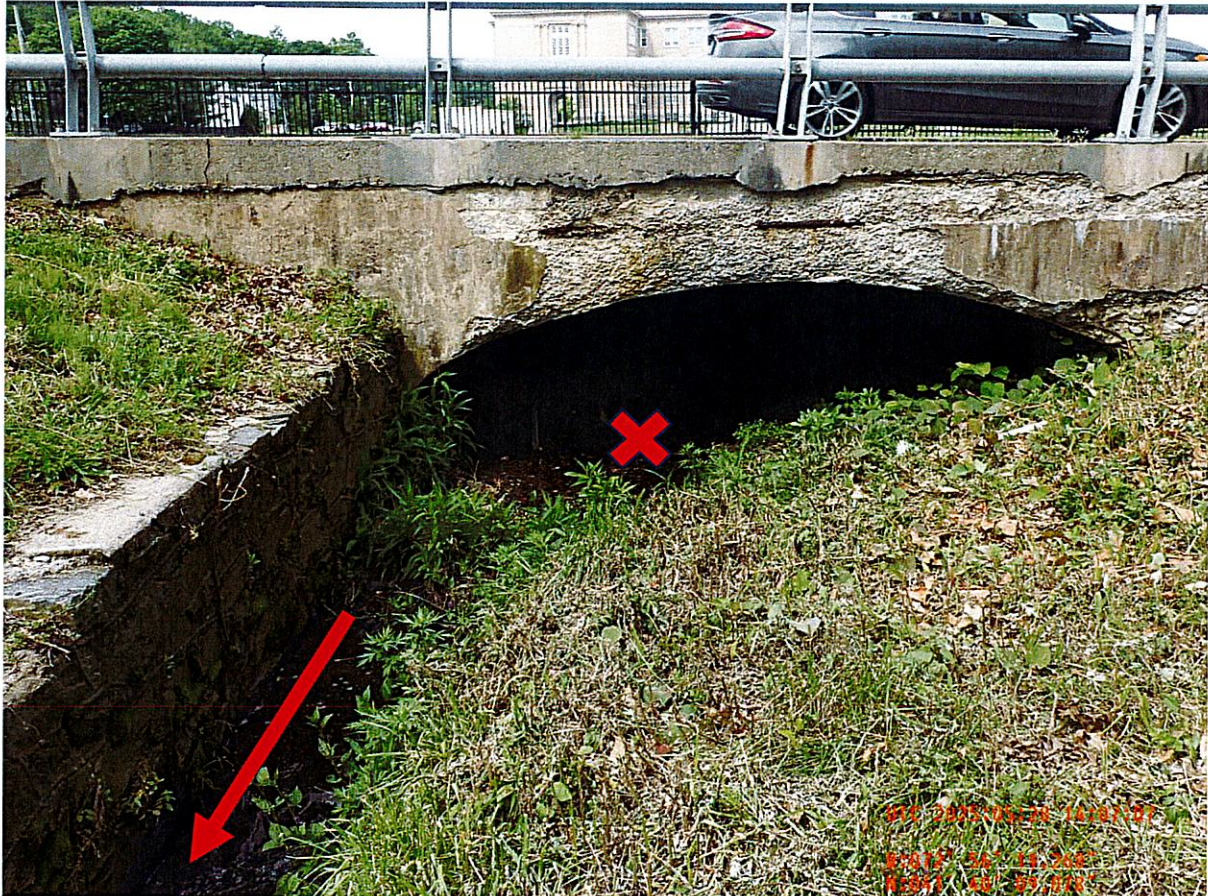


Photo 8a: Mellen1 (photo taken 05/28/2025 at approx. 10:02) Unidentified culverted stream located at 165 Memorial Blvd, Bristol, CT. Sample point is indicated by a red X. Red arrow shows flow direction.

Note: Embedded time stamp on photo is inaccurate.

Bristol, CT

EPA MS4 Compliance Sampling Inspection

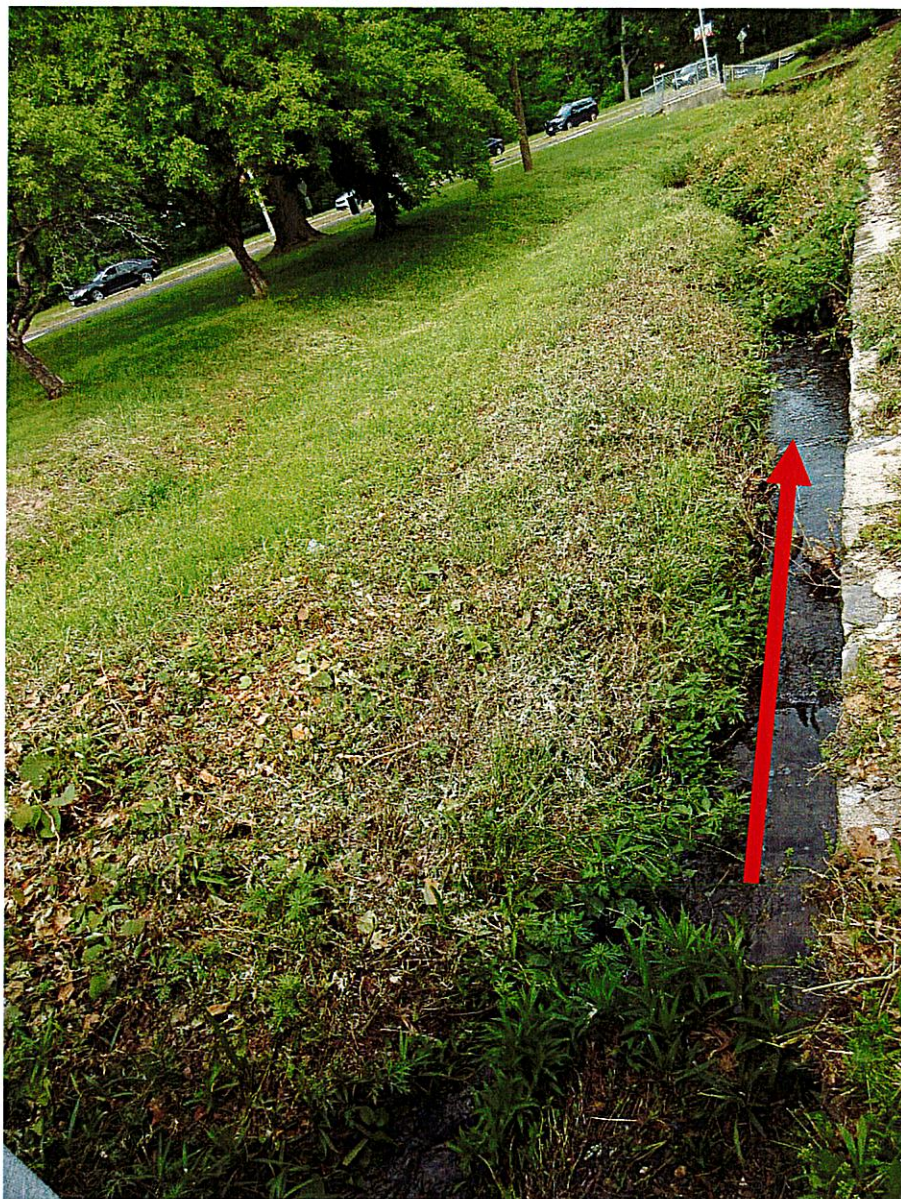


Photo 8b: Mellen1 Downstream (photo taken 05/27/2025 during reconnaissance) Photo depicts the downstream view from Mellen1's sampling location. Red arrow shows flow direction.



Photo 9: Gridley1 (photo taken 05/28/2025 at approx. 10:10) Outfall located at 221 Gridley St, Bristol, Ct. Red arrows show flow direction from outfall. Blue arrow shows flow- through direction of interconnected storm pipes.

Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 10a: West1 (photos taken 05/28/2025 at approx. 10:35) Unidentified culverted stream located at 40 West St, Bristol, CT. Sample point is indicated by a red X. Red arrow shows flow direction. Note: Embedded time stamp on photo is inaccurate.



Photo 10b: West1 (photos taken 05/28/2025 at approx. 10:35) Unidentified culverted stream located at 40 West St, Bristol, CT. Sample point is indicated by a red X. Associated photo shows the location of an unidentified terracotta outfall located on the left concrete retaining wall, indicated by the yellow arrow, looking upstream. Red arrow shows flow direction. Note: Embedded time stamps on photos are inaccurate.



Photo 10c: West1 Downstream (photo taken 05/27/2025 during reconnaissance) Photo depicts downstream of West1 sample location. Red arrow shows flow direction.

Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 11a: Park1 (photos taken 05/28/2025 at approx. 10:53) Un-named culverted stream located at 88 Park St, Bristol, CT. Sample point is indicated by a red X. Red arrow shows flow direction.

Bristol, CT

EPA MS4 Compliance Sampling Inspection



Photo 11b: Park1 (photo taken 05/27/2025 during reconnaissance) Photo depicts the cloudy water observed during the reconnaissance. Red arrow shows flow direction.



Photo 12: Greene1R (photos taken 05/28/2025 at approx. 11:52) Outlet of an unnamed culverted stream located at the end of 102 Greene St, Bristol, CT. The outflow joins with the discharge from Greene1L approximately 10 feet downstream. Sample point is indicated by a red X. Arrow shows flow direction. See associated photo: **13b**: which is labeled to show the confluence between the culverted stream (yellow arrow) and Greene1R stream (blue arrow) as well as directional flow.



Photo 13: Greene1L (photo taken 05/28/2025 at approx. 12:00) Outfall located at the end of 102 Greene St, Bristol, CT. Sample point is indicated by a red X. Arrow shows flow direction. See associated photo: **13b**: which is labeled to show the confluence between Greene1R stream (blue arrow) and the culverted stream (yellow arrow) and as well as directional flow.



Photo 13b: Greene 1L-1R (photo taken 05/27/2025 during reconnaissance) Photo depicts the confluence between Greene1R stream (blue arrow) and Greene 1L (yellow arrow). Arrows show flow direction.

Bristol, CT

EPA MS4 Compliance Sampling Inspection

Attachment A

Laboratory Report for

E. coli and Enterococcus Analysis

Author: Connecticut Department of Public Health Laboratory

Pages: 8

Attachment B

Bristol, CT

EPA MS4 Compliance Sampling Inspection

**Laboratory Report for
Source Tracking Analysis**

Author: LSASD Laboratory Services Branch

Pages: 22

End of Report

Bristol, CT

EPA MS4 Compliance Sampling Inspection



STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

Dr. Katherine A. Kelley State Public Health Laboratory 395 West Street, Rocky Hill, CT

Phone: (860) 920-6500 Fax: (860) 920-6718

LABORATORY TEST REPORT

Report To Anna Hatke
USEPA NE Regional Laboratory
11 Technology Drive
North Chelmsford, MA 01863

Attention: Anna Hatke & Nafisah Ali

May 30, 2025

RE: Workorder: 1299488 WorkID: Surface Water EPA 052825

Dear Anna Hatke & Nafisah Ali,

Enclosed are the analytical results for sample(s) received by the laboratory Wednesday, May 28, 2025. The signature on this report indicates the samples were analyzed according to the laboratory's standard operating procedures.

If you have any questions concerning this report, please contact Kimberly Holmes-Talbot at (860)920-6500 or by email at Kimberly.Holmes-Talbot@ct.gov.

Kimberly Holmes-Talbot, MS

Environmental Microbiology

This electronic signature is a true representation of my hand written signature

1299488 - 24938589

REPORT OF ANALYSIS

Connecticut Registration No : PH-0905

EPA Certificate No. 2010CT01

**STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH**

Dr. Katherine A. Kelley State Public Health Laboratory 395 West Street, Rocky Hill, CT

Phone: (860) 920-6500 Fax: (860) 920-6718

FINAL REPORT

Work Order #: 1299488 (Surface Water EPA 052825)

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Analytes Reported
1299488001	TERRY 1	Surface, River,	5/28/2025 8:25:00 AM	5/28/2025	2
1299488002	NPARK 1	Surface, River,	5/28/2025 8:55:00 AM	5/28/2025	2
1299488003	GAYLORD1	Surface, River,	5/28/2025 9:37:00 AM	5/28/2025	2
1299488004	GRIDLEY 1	Surface, River,	5/28/2025 10:10:00 AM	5/28/2025	2
1299488005	PARK 1	Surface, River,	5/28/2025 10:53:00 AM	5/28/2025	2
1299488006	GREENE 1R	Surface, River,	5/28/2025 11:52:00 AM	5/28/2025	2
1299488007	DUP01	Surface, River,	5/28/2025 11:52:00 AM	5/28/2025	2
1299488008	GREENE1L	Surface, River,	5/28/2025 12:00:00 PM	5/28/2025	2
1299488009	JEWEL1	Surface, River,	5/28/2025 8:05:00 AM	5/28/2025	2
1299488010	MECHANIC 1	Surface, River,	5/28/2025 8:45:00 AM	5/28/2025	2
1299488011	BLAKESLEE L	Surface, River,	5/28/2025 9:20:00 AM	5/28/2025	2
1299488012	BLAKESLEE R	Surface, River,	5/28/2025 9:23:00 AM	5/28/2025	2
1299488013	MELLEN 1	Surface, River,	5/28/2025 10:02:00 AM	5/28/2025	2
1299488014	WEST 1	Surface, River,	5/28/2025 10:35:00 AM	5/28/2025	2

1299488 - 24938589

REPORT OF ANALYSIS

Connecticut Registration No : PH-0905

EPA Certificate No. 2010CT01

**STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH**

Dr. Katherine A. Kelley State Public Health Laboratory 395 West Street, Rocky Hill, CT
Phone: (860) 920-6500 Fax: (860) 920-6718

FINAL REPORT

Work Order #: 1299488 (Surface Water EPA 052825)

Analytical Results

Lab ID: 1299488001	Date Received: 5/28/2025 13:27	Matrix: Surface, River, Stream, Lake
Sample ID: TERRY 1	Date Collected: 5/28/2025 08:25	Collector: Anna Hatke
Desc: ANNA HATKE-TERRY 1		

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus		10 MPN/100 mL	10	1			5/28/2025 13:58	KHT
(Enzyme Substrate Coliform Test)								
E. coli		20 MPN/100 mL	10	1			5/28/2025 14:11	KHT

Lab ID: 1299488002	Date Received: 5/28/2025 13:27	Matrix: Surface, River, Stream, Lake
Sample ID: NPARK 1	Date Collected: 5/28/2025 08:55	Collector: Anna Hatke
Desc: ANNA HATKE-NPARK 1		

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus		20 MPN/100 mL	10	1			5/28/2025 13:58	KHT
(Enzyme Substrate Coliform Test)								
E. coli		<10 MPN/100 mL	10	1			5/28/2025 14:11	KHT

Lab ID: 1299488003	Date Received: 5/28/2025 13:27	Matrix: Surface, River, Stream, Lake
Sample ID: GAYLORD1	Date Collected: 5/28/2025 09:37	Collector: Anna Hatke
Desc: ANNA HATKE- GAYLORD 1		

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus		41 MPN/100 mL	10	1			5/28/2025 13:58	KHT

1299488 - 24938589

REPORT OF ANALYSIS

Connecticut Registration No : PH-0905
EPA Certificate No. 2010CT01

**STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH**

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Phone: (860) 920-6500 Fax: (860) 920-6718

FINAL REPORT

Work Order #: 1299488 (Surface Water EPA 052825)

Analytical Results (cont.)**--Environmental Microbiology--**

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enzyme Substrate Coliform Test)								
E. coli	20	MPN/100 mL	10	1			5/28/2025 14:11	KHT

Lab ID: 1299488004

Date Received: 5/28/2025 13:27

Matrix: Surface, River, Stream, Lake

Sample ID: GRIDLEY 1

Date Collected: 5/28/2025 10:10

Collector: Anna Hatke

Desc: ANNA HATKE- GRIDLEY 1

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	20	MPN/100 mL	10	1			5/28/2025 13:58	KHT

(Enzyme Substrate Coliform Test)

E. coli	<10	MPN/100 mL	10	1			5/28/2025 14:11	KHT
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Lab ID: 1299488005

Date Received: 5/28/2025 13:27

Matrix: Surface, River, Stream, Lake

Sample ID: PARK 1

Date Collected: 5/28/2025 10:53

Collector: Anna Hatke

Desc: ANNA HATKE- PARK 1

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	130	MPN/100 mL	10	1			5/28/2025 13:58	KHT

(Enzyme Substrate Coliform Test)

E. coli	<10	MPN/100 mL	10	1			5/28/2025 14:11	KHT
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1299488 - 24938589

REPORT OF ANALYSIS

Connecticut Registration No : PH-0905

EPA Certificate No. 2010CT01

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FINAL REPORT

Work Order #: 1299488 (Surface Water EPA 052825)

Analytical Results (cont.)

Lab ID: 1299488006

Date Received: 5/28/2025 13:27

Matrix: Surface, River, Stream,
Lake

Sample ID: GREENE 1R

Date Collected: 5/28/2025 11:52 Collector: Anna Hatke

Desc: ANNA HATKE- GREENE 1R

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	74	MPN/100 mL	10	1			5/28/2025 13:58	KHT
(Enzyme Substrate Coliform Test)								
E. coli	10	MPN/100 mL	10	1			5/28/2025 14:11	KHT

Lab ID: 1299488007

Date Received: 5/28/2025 13:27

Matrix: Surface, River, Stream,
Lake

Sample ID: DUP01

Date Collected: 5/28/2025 11:52 Collector: Anna Hatke

Desc: ANNA HATKE- DUP 01

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	41	MPN/100 mL	10	1			5/28/2025 13:58	KHT
(Enzyme Substrate Coliform Test)								
E. coli	<10	MPN/100 mL	10	1			5/28/2025 14:11	KHT

Lab ID: 1299488008

Date Received: 5/28/2025 13:27

Matrix: Surface, River, Stream,
Lake

Sample ID: GREENE1L

Date Collected: 5/28/2025 12:00 Collector: Anna Hatke

Desc: ANNA HATKE- GREENE 1L

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	85	MPN/100 mL	10	1			5/28/2025 13:58	KHT

1299488 - 24938589

REPORT OF ANALYSIS

Connecticut Registration No : PH-0905

EPA Certificate No. 2010CT01

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FINAL REPORT

Work Order #: 1299488 (Surface Water EPA 052825)

Analytical Results (cont.)**--Environmental Microbiology--**

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enzyme Substrate Coliform Test)								
E. coli	<10	MPN/100 mL	10	1			5/28/2025 14:11	KHT

Lab ID: 1299488009

Date Received: 5/28/2025 13:27

Matrix: Surface, River, Stream, Lake

Sample ID: JEWEL1

Date Collected: 5/28/2025 08:05

Collector: Anna Hatke & Nafisah Ali

Desc: NAFISAH ALI- JEWEL 1

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	63	MPN/100 mL	10	1			5/28/2025 14:05	TR1

(Enzyme Substrate Coliform Test)

E. coli	1100	MPN/100 mL	10	1			5/28/2025 14:15	TR1
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Lab ID: 1299488010

Date Received: 5/28/2025 13:27

Matrix: Surface, River, Stream, Lake

Sample ID: MECHANIC 1

Date Collected: 5/28/2025 08:45

Collector: Anna Hatke & Nafisah Ali

Desc: NAFISAH ALI- MECHANIC 1

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	1200	MPN/100 mL	10	1			5/28/2025 14:05	TR1

(Enzyme Substrate Coliform Test)

E. coli	720	MPN/100 mL	10	1			5/28/2025 14:15	TR1
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1299488 - 24938589

REPORT OF ANALYSIS

Connecticut Registration No : PH-0905

EPA Certificate No. 2010CT01

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FINAL REPORT

Work Order #: 1299488 (Surface Water EPA 052825)

Analytical Results (cont.)

Lab ID: 1299488011	Date Received: 5/28/2025 13:27	Matrix: Surface, River, Stream, Lake
Sample ID: BLAKESLEE L	Date Collected: 5/28/2025 09:20	Collector: Anna Hatke & Nafisah Ali
Desc: NAFISAH ALI- BLAKESLEE L		

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	52	MPN/100 mL	10	1			5/28/2025 14:05	TR1
(Enzyme Substrate Coliform Test)								
E. coli	10	MPN/100 mL	10	1			5/28/2025 14:15	TR1

Lab ID: 1299488012	Date Received: 5/28/2025 13:27	Matrix: Surface, River, Stream, Lake
Sample ID: BLAKESLEE R	Date Collected: 5/28/2025 09:23	Collector: Anna Hatke & Nafisah Ali
Desc: NAFISAH ALI- BLAKESLEE R		

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	85	MPN/100 mL	10	1			5/28/2025 14:05	TR1
(Enzyme Substrate Coliform Test)								
E. coli	<10	MPN/100 mL	10	1			5/28/2025 14:15	TR1

Lab ID: 1299488013	Date Received: 5/28/2025 13:27	Matrix: Surface, River, Stream, Lake
Sample ID: MELLEN 1	Date Collected: 5/28/2025 10:02	Collector: Anna Hatke & Nafisah Ali
Desc: NAFISAH ALI- MELLEN 1		

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	85	MPN/100 mL	10	1			5/28/2025 14:05	TR1

1299488 - 24938589

REPORT OF ANALYSIS

Connecticut Registration No : PH-0905

EPA Certificate No. 2010CT01



STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

Dr. Katherine A. Kelley State Public Health Laboratory 395 West Street, Rocky Hill, CT

Phone: (860) 920-6500 Fax: (860) 920-6718

FINAL REPORT

Work Order #: 1299488 (Surface Water EPA 052825)

Analytical Results (cont.)

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enzyme Substrate Coliform Test)								
E. coli	260	MPN/100 mL	10	1			5/28/2025 14:15	TR1

Lab ID: 1299488014

Date Received: 5/28/2025 13:27

Matrix: Surface, River, Stream, Lake

Sample ID: WEST 1

Date Collected: 5/28/2025 10:35

Collector: Anna Hatke & Nafisah Ali

Desc: NAFISAH ALI- WEST 1

--Environmental Microbiology--

Parameter	Results	Units	Report Limit	DF	Prepared	By	Analyzed	By
(Enterolert MPN)								
Enterococcus	75	MPN/100 mL	10	1			5/28/2025 14:05	TR1
(Enzyme Substrate Coliform Test)								
E. coli	280	MPN/100 mL	10	1			5/28/2025 14:15	TR1

1299488 - 24938589

REPORT OF ANALYSIS

Connecticut Registration No : PH-0905

EPA Certificate No. 2010CT01



Laboratory Report

June 25, 2025

Anna Hatke
US EPA Region 1

Project Number: 25050030
Project: MS4 Bristol, CT
Analysis: HPLC/MS/MS Source Tracking Analysis
EPA Chemist: Peter Philbrook

Date Samples Received by the Laboratory: 05/29/2025

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, LSBSOP-LCMS_STA.3.

The SOP is based on an EPA Regional Analytical Method developed at the EPA New England Laboratory.

Data were reviewed in accordance with the internal verification procedures described in the EPA New England Quality Manual for NERL.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8340 .

Sincerely,

DANIEL

BOUDREAU

Digitally signed by
DANIEL BOUDREAU

Date: 2025.06.25
14:44:26 -04'00'

25050030\$STA

Qualifiers:

RL = Reporting limit
ND = Not Detected above Reporting limit
NA = Not Applicable due to high sample dilutions or sample interferences
NC = Not calculated since analyte concentration is ND.
J = Estimated value
J1 = Estimated value due to MS recovery outside acceptance criteria
J2 = Estimated value due to LFB result outside acceptance criteria
J3 = Estimated value due to RPD result outside acceptance criteria
J4 = Estimated value due to LCS result outside acceptance criteria
E = Estimated value exceeds the calibration range
L = Estimated value is below the calibration range
B = Analyte is associated with the lab blank or trip blank contamination. Values are qualified when the observed concentration of the contamination in the sample extract is less than 10 times the concentration in the blank.
R = No recovery was calculated since the analyte concentration is greater than four times the spike level.
P = The confirmation value exceeded 35% difference and is less than 100%. The lower value is reported.
C = The identification has been confirmed by GC/MS.
A = Suspected Aldol condensation product.
N = Tentatively identified compound.

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 1
LABORATORY SERVICES BRANCH

Page 3 of 22

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Jewel 1	Lab Sample ID:	AC19884
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	16	1	0.40	
103-90-2	Acetaminophen	32	1	2.0	
611-59-6	Paraxanthine	73	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	1400	5	20	
56392-17-7	Metoprolol	4.2	1	2.0	
58-73-1	Diphenhydramine	0.59	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	85	40 - 120
Diphenhydramine-D3	88	56 - 113

Comments: Sample extract was re-run at a 5X dilution to bring caffeine into the calibration range

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 1
LABORATORY SERVICES BRANCH

Page 4 of 22

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Terry 1	Lab Sample ID:	AC19885
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	ND	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	ND	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	ND	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	91	40 - 120
Diphenhydramine-D3	81	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Mechanical 1	Lab Sample ID:	AC19886
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	1.7	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	5.5	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	14	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	0.40	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	93	40 - 120
Diphenhydramine-D3	92	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	N Park 1	Lab Sample ID:	AC19887
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	ND	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	3.2	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	ND	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	93	40 - 120
Diphenhydramine-D3	91	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Blakelee L	Lab Sample ID:	AC19888
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	1.4	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	ND	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	4.0	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	88	40 - 120
Diphenhydramine-D3	82	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Blakelee R	Lab Sample ID:	AC19889
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	2.2	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	2.7	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	6.6	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	0.40	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	93	40 - 120
Diphenhydramine-D3	81	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Gaylord 1	Lab Sample ID:	AC19890
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	1.3	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	ND	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	12	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	82	40 - 120
Diphenhydramine-D3	78	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Mellen 1	Lab Sample ID:	AC19891
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	1.8	1	0.40	
103-90-2	Acetaminophen	82	1	2.0	
611-59-6	Paraxanthine	7.2	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	6.2	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	102	40 - 120
Diphenhydramine-D3	87	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Gridley 1	Lab Sample ID:	AC19892
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	ND	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	ND	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	ND	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	93	40 - 120
Diphenhydramine-D3	81	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	West 1	Lab Sample ID:	AC19893
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	3.2	1	0.40	
103-90-2	Acetaminophen	11	1	2.0	
611-59-6	Paraxanthine	29	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	120	1	4.0	
56392-17-7	Metoprolol	5.1	1	2.0	
58-73-1	Diphenhydramine	2.4	1	0.40	
298-46-4	Carbamazepine	1.1	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	89	40 - 120
Diphenhydramine-D3	90	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Park 1	Lab Sample ID:	AC19894
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	0.63	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	3.5	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	8.3	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	0.94	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	80	40 - 120
Diphenhydramine-D3	74	56 - 113

Comments:

U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION I
LABORATORY SERVICES BRANCH

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MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Greene 1 R	Lab Sample ID:	AC19895
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	ND	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	ND	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	ND	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	0.48	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	71	40 - 120
Diphenhydramine-D3	71	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	DUP 01	Lab Sample ID:	AC19896
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	ND	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	ND	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	ND	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	0.65	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	87	40 - 120
Diphenhydramine-D3	75	56 - 113

Comments:

MS4 Bristol, CT

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	Greene 1 L	Lab Sample ID:	AC19897
Date of Collection:	5/28/2025	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	0.98	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	2.4	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	5.6	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	84	40 - 120
Diphenhydramine-D3	75	56 - 113

Comments:

MS4 Bristol, CT

Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix:	Storm water
Date of Preparation:	5/29/2025	Amount Prepared:	500 mL
Date of Analysis:	6/16/2025	Percent Solids:	N/A
Dry Weight Prepared:	N/A	Extract Dilution:	1
Wet Weight Prepared:	N/A	pH:	N/A

CAS Number	Compound	Concentration ng/L	Dilution	RL ng/L	Qualifier
486-56-6	Cotinine	ND	1	0.40	
103-90-2	Acetaminophen	ND	1	2.0	
611-59-6	Paraxanthine	ND	1	2.0	
29122-68-7	Atenolol	ND	1	2.0	
58-08-2	Caffeine	ND	1	4.0	
56392-17-7	Metoprolol	ND	1	2.0	
58-73-1	Diphenhydramine	ND	1	0.40	
298-46-4	Carbamazepine	ND	1	0.40	

Surrogate Compounds	Recoveries (%)	QC Ranges
Acetaminophen 13C6	92	40 - 120
Diphenhydramine-D3	71	56 - 113

Comments:

MS4 Bristol, CT

MATRIX SPIKE (MS) RECOVERY

Sample ID: AC19894

PARAMETER	SPIKE ADDED ng/L	SAMPLE CONCENTRATION ng/L	MS CONCENTRATION ng/L	MS % REC	QC LIMITS (% REC)
Acetaminophen	120	ND	73.0	61	58 - 98
Atenolol	120	ND	111	93	49 - 124
Caffeine	240	8.3	230	92	67 - 104
Carbamazepine	24.0	0.940	22.7	91	70 - 104
Cotinine	24.0	0.633	20.9	84	58 - 113
Diphenhydramine	24.0	ND	17.9	75	43 - 124
Metoprolol	120	ND	104	87	46 - 121
Paraxanthine	120	3.5	105	85	26 - 129

MS4 Bristol, CT

Laboratory Duplicate Results

Sample ID: AC19897

PARAMETER	SAMPLE RESULT ng/L	SAMPLE DUPLICATE RESULT ng/L	PRECISION RPD %	QC LIMITS
Acetaminophen	ND	ND	NC	50
Atenolol	ND	ND	NC	50
Caffeine	5.6	4.0	34	50
Carbamazepine	ND	ND	NC	50
Cotinine	0.979	1.02	4.1	50
Diphenhydramine	ND	ND	NC	50
Metoprolol	ND	ND	NC	50
Paraxanthine	2.4	1.3	60	50

MS4 Bristol, CT

Laboratory Fortified Blank (LFB) Results

PARAMETER	LFB AMOUNT SPIKED ng/L	LFB RESULT ng/L	LFB RECOVERY %	QC LIMITS %
Acetaminophen	120	73.2	61	64 - 91
Atenolol	120	89.8	75	62 - 111
Caffeine	240	133	55	52 - 106
Carbamazepine	24	18.8	78	72 - 104
Cotinine	24	15.1	63	55 - 108
Diphenhydramine	24	16.6	69	58 - 97
Metoprolol	120	87.0	73	64 - 109
Paraxanthine	120	103	86	67 - 112

Comments:

Samples in Batch:



US EPA Region 1

11 Technology Drive, N. Chelmsford, MA 01863

CHAIN OF CUSTODY RECORD

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Page: 1 of 1

EPA Project No: 25050030		Project Name & Location: Bristol, CT MSH		Sampler's Name and Signature: <i>Nafisah Ali</i>		Signature: <i>Nafisah Ali</i>	
Matrix (insert letter in column below) A. Drinking water B. Ground/Well water C. Storm water D. Surface water E. Wastewater		Preservative (insert # in box to the right) → 1. Ice 2. H ₂ SO ₄ , pH<2 3. HNO ₃ , pH<2 4. HCl, pH<2 5. Na ₂ S ₂ O ₃		# of Containers		Analysis Requested	
Lab ID	Sample ID	Date	Time	Comp	Grab	Matrix	For EPA Staff Only: If after hours or nobody is available, leave cooler(s) and signed COC in the walk-in fridge (Room 190A) and notify appropriate staff for next day check-in.
	Jewel I	5/28/25	8:05		X	C	Sample Specific Comments
	Terry I	5/28/25	8:25		X	C	
	Mechanical I	5/28/25	8:45		X	C	
	N Park I	5/28/25	8:55		X	C	
	Blakeslee L	5/28/25	9:20		X	C	
	Blakeslee R	5/28/25	9:23		X	C	
	Gaylord I	5/28/25	9:37		X	C	
	Mellen I	5/28/25	10:02		X	C	
	Gridley I	5/28/25	10:10		X	C	
	West I	5/28/25	10:35		X	C	
	Park I	5/28/25	10:53		X	C	
	Greene I R	5/28/25	11:52		X	C	
	DUP 01	5/28/25	11:52		X	C	
	Greene I L	5/28/25	12:00		X	C	
Relinquished by: (Signature) <i>Anna Datta</i>		Received by: (Signature) <i>Room 190</i>		Date 5/28/25		Time 17:25	
Relinquished by: (Signature) <i>Room 190</i>		Received by: (Signature) <i>Laura Blawieck (ESAT)</i>		Date 5/29/25		Time 7:00	
Relinquished by: (Signature)		Received for Laboratory by: (Signature)		Date		Time	

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files.

FSBFORM-CHAINCUSTODY1
Revision 1
05/16/2022

US EPA REGION I
SAMPLE RECEIPT CHECKLIST

PROJ #: 25050030	SURVEY NAME: MS4 Bristol LOCATION: Bristol, CT	SITE ID: ---	SUPERFUND: N
RECEIPT DATE: 5/29/25	REC'D BY: Laura Glowacki (ESAT)		

Storm water samples 14 #STA Samples relinquished to walk in by Anna Hatke on 5/28/25 COMMENTS:	WERE SAMPLES SHIPPED?	☒	
	TRACKING #:		
	DATE/SENT:		
	NO. Hand Delivered	☒	
	COOLER TEMPERATURE UPON ARRIVAL		°C/NA
	CHAIN OF CUSTODY PRESENT?	☒	Y
	COMPLETE?	☒	Y
	CUSTODY SEALS PRESENT ON COOLER?	☒	N
	SAMPLES?	☒	N
	WERE SAMPLE CONTAINERS INTACT?	☒	Y
	WAS SAMPLE PRESERVATION DOCUMENTED?	☒	N
	COO Sample Container		
	APPROPRIATE SAMPLES VOLUME	☒	Y
	FOR REQUESTED ANALYSIS?	☒	Y
	SAMPLES AND COO MATCH?	☒	Y
	IF ANY PROBLEMS WAS PROJECT MANAGER NOTIFIED?		
	BY WHOM?		
APPROPRIATE SAMPLE CONTAINERS?	☒	Y	
SAMPLES WITHIN HOLDING TIMES?	☒	Y	
ALL ANALYSIS SPECIFIED ON COO?	☒	Y	
DATE/TIME OF COLLECTION ON COO	☒	Y	
TURN-AROUND TIME: 4 weeks			

August 22, 2025

City of Bristol

EPA Sampling Findings

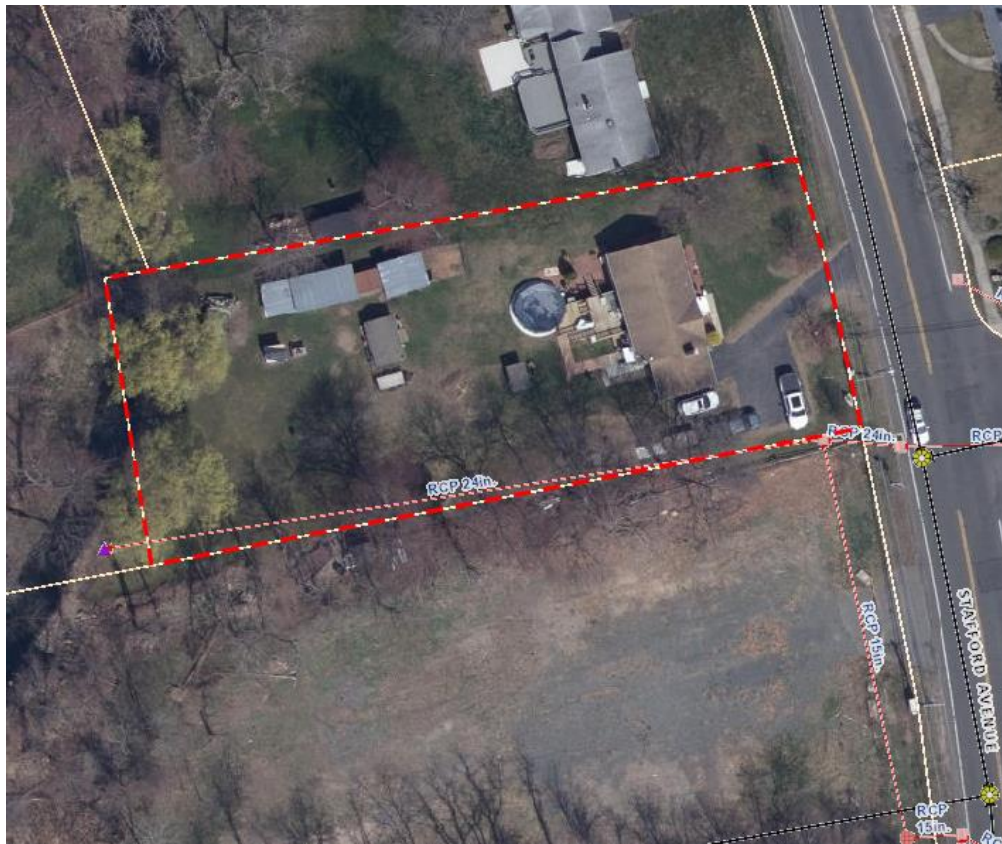
Illicit Discharge Inspection Plan

Jewel 1

United States Environmental Protection Agency (USEPA) submitted a MS4 Sampling Report dated July 22, 2025 to the City of Bristol on July 28, 2025. A USEPA investigation team conducted unannounced sampling at City outfalls including sampling an outfall adjacent to Jewel Street on May 28, 2025. This sample revealed elevated concentrations of E. coli and pharmaceuticals and personal care products (PPCPs). Immediately upon the City's receipt of USEPA's report, the City engaged BL Companies to review and support taking immediate investigative action. City of Bristol's Sanitation Department engineers performed an illicit discharge reconnaissance of the area on August 1, 2025. Reconnaissance findings identified an illegal RV sanitary connection into a storm sewer at 335 Stafford Avenue. The City made immediate contact with the party responsible and ordered an immediate storm sewer disconnect. On August 18, 2025 a City of Bristol sampling technician visually verified the sanitary line was disconnected.

To confirm the disconnect eliminated continued illicit sanitary discharge the following will be performed.

1. Collect a confirmatory Jewel 1 outfall sample.
2. Assess the need for continued illicit discharge investigation up-flow from the Jewel 1 outfall.



Mechanic1 Culvert, Upstream Sample

August 6, 2025 City of Bristol official inspected USEPA's sample location and upstream areas. No signs of wastewater were observed such as odors, sheens, discoloration, paper remnants and deposits with the exception of a discoloration of the surface water at Mechanic 1 sample location (76 Mechanics Street). The water in the stream appeared to be greyish brown/tan. A City official walked the stream bank upstream to assess the extent of the discoloration and to identify a source. The discoloration extended upstream to 10 Carpenter Avenue at the stream bank where a pile of yard spoils were observed. The yard soils consisted mostly of grass clippings which appeared to have been piled along the stream bank for many years. It appeared the discoloration was coming from the spoils pile. A second potential source observed was a storm line from King Street. The spoils pile and storm line are very close in proximity. The Coppermine Brook flows north to south under the Carpenter Avenue bridge, the north side (upstream) was normal, the south side was not. Important to note, weather was very dry with no rainfall yet recorded in August. The City official did not see any active water flowing from the storm line entering the brook from the 36" line off King Street.

The City's sampling technician visited Mechanic 1 outfall sampling location and identified three private connects. The connections appeared to the ran leaders.

Mechanic1 stream sample collected upstream of Mechanic Street culvert (runs under road).

1. Collect a confirmatory stream sample at EPA sampling point.
2. Assess the need to collect a stream sample immediately downflow of the yard spoils.
3. Require resident to remove yard spoils from stream bank, if necessary.

The sample results will either identify a sanitary point source(s) or confirm the EPA sample illicit discharge indicator detections were representative of background conditions.



Blakeslee L and Blakeslee R Downstream Culvert Samples

On August 6, 2025 a City official inspected the outfall sample location and areas upstream and found no evidence of wastewater. On August 19, 2025 a the City's sampling technician opened two up-flow stormwater catch basins and did not observe evidence of sewer impacts (no odors, no flowing water).

Blakeslee Left and Blakeslee Right samples collected downstream of two culvert outlets that convey stormwater from road catch basin and stream channel flow under Blakeslee Road.

1. Collect confirmatory samples.
2. Open and inspect stormwater catch basin for evidence of sanitary influence.
3. Assess need to collect upgradient sample to evaluate background conditions or other source(s).



Gaylord 1 Outlet Sample

EPA collected a discharge sample of the Gaylord 1 outlet drain (1.5 feet diameter). On August 6, 2025 a City official inspected the outlet sample location and areas upstream and found no evidence of wastewater. On August 19, 2025, the closest stormwater manhole was opened and inspected. Evidence of pet wastes were observed. There was no sewer odors and no flowing water.

1. Collect confirmatory discharge sample.
2. Assess the need to collect stormwater manhole water sample and analyze for full general permit illicit discharge indicator parameters.

The sample results will confirm if a illicit discharge indicator parameter source exists down flow (house to the east) or up-flow at upgradient stormwater inlets.

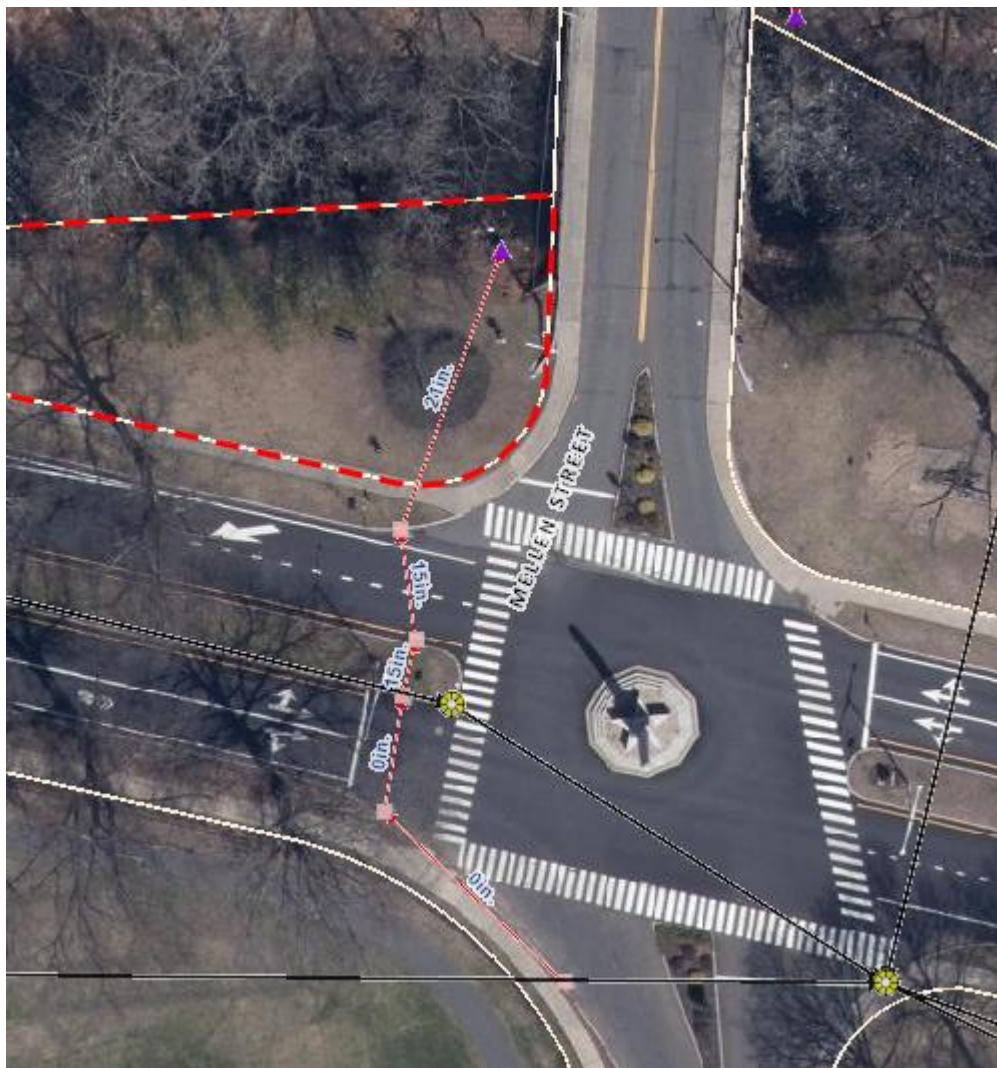


Mellen1 Downstream Culvert

EPA collected downstream sample from a 15 foot culvert that runs under Memorial Blvd. On August 6, 2025 a City official inspected the outfall sample location and areas upstream and found no evidence of wastewater. The City's sampling technician inspected the outfall area on August 19, 2025. Five up-flow stormwater manholes were opened and inspected. No sewer odors were noted. None of the manholes containing flowing water.

1. Collect confirmatory sample.
2. Assess the need to sample stormwater sewer for full general permit illicit discharge indicator.

The sample may confirm if the illicit discharge indicator detections were indicative of a background condition.



West 1 In-stream Sample

EPA collected a stream sample at the mouth of rectangular culvert (5'X 10'). Upstream a 6-inch clay pipe was observed connected to an adjacent parking lot. On August 6, 2025 a City official inspected the outfall sample location and areas upstream and found no evidence of wastewater.

The City inspected the commercial building and stream during the week of August 11, 2025 and confirmed floor drains and bathroom fixtures to be present in the adjacent building. A second inspection of the lot and interior building was conducted on August 18, 2025. Building floor drains were observed. In addition, multiply bathrooms were observed. Water service was not in operation at the time of the inspection. The toilets and sinks appeared to be connected to the sewer; however, a dye test would be required to confirm. The City was informed that the basement floods during rain events which typically subsides within a few hours. The basement houses oil tanks and hydraulic fluid tanks.

1. Collect confirmatory surface water sample.
2. Conduct a building bathroom drain dye test.
3. Assess the need to sample stormwater outlet at front of commercial building and test for full general permit illicit discharge indicator parameters.
4. Assess neighboring dry cleaning facility for illicit discharging.

Building inspection may identify an illegal sanitary connection to the storm sewer. Closest up-flow stormwater manhole sample will verify if source(s) exist further upgradient with respect to stormwater flow.





Department of Public Works | 860.584.6125

MEMORANDUM

DATE: March 26, 2025

TO: Mayor Jeffrey Caggiano
Board of Public Works

FROM: Raymond A. Rogozinski, P.E., Director of Public Works

**RE: BPW – ESTABLISHMENT OF A BOARD OF PUBLIC WORKS -
CITY MS4 STEERING COMMITTEE**

The Department of Public Works and the Sewer Department received a request from the EPA for information associated with an audit of the City's compliance with Connecticut General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems ("MS4 Permit"), Federal Clean Water Act ("CWA") Permit No. CTR030042, and of the City of Bristol's compliance with the Connecticut Individual Permit for the Discharge of Treated Sanitary Sewage ("Sanitary Wastewater Discharge Permit") from Publicly-Owned Treatment Works, Federal CWA Permit No. CT0100374. Although the City of Bristol has implemented a Stormwater Management Plan ("SWMP"), developed and enacted pursuant to the MS4 Permit, publicly-available records produced by the City reflect potential non-compliance with the MS4 Permit and the Clean Water Act.

The regulatory requirements associated with City storm water infrastructure managed by the Department of Public Works primarily consists of Connecticut General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems ("MS4 Permit").

The requirements of the current MS4 General Permit include development and implementation of a Stormwater Management Plan, screening and monitoring of stormwater outfalls which discharge into impaired waters, and waters subject to a Total Maximum Daily Load (TMDL). The Stormwater Management Plan is the cornerstone of this MS4 General Permit. It is a document that contains information on its stormwater and municipal infrastructure along with Best Management Practices ("BMPs") to reduce and/or eliminate the discharge of pollutants through the storm sewer system to the Maximum Extent Practicable ("MEP"). MEP is the standard promulgated in EPA's



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Phase II rule that MS4s are required to meet. The MS4 General Permit definition of MEP is “to reduce and/or eliminate to the extent achievable using control measures that are technologically available and economically practicable and achievable in light of best industry practice.”

The City is required to develop a program consistent with permit requirements, implement the program, evaluate the effectiveness of the program, and revise the program when deemed ineffective. This process continues with the goal of protecting water quality and achieving the appropriate water quality requirements of the Clean Water Act. The BMPs in the Stormwater Management Plan are organized into six categories of Minimum Control Measures:

1. Public education and outreach
2. Public participation
3. Illicit discharge detection and elimination (“IDDE”)
4. Construction stormwater management
5. Post-construction stormwater management
6. Pollution prevention and good housekeeping

Each of these categories includes several BMPs to implement the control measure. Certain BMPs are required, but the permit provides for additional BMPs to be implemented, as necessary, to address pollution at the discretion of the MS4.

As indicated, compliance with Connecticut General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (“MS4 Permit”) regulations includes public outreach, public participation, and increasing current regulatory requirements defined in City Ordinances, Zoning, Planning, Inland Wetlands, and Public Works roadway standards. In addition, the Department of Public Works receives assistance from the Water & Sewer Department, Parks Department, and Board of Education.

In order to assist the Department of Public Works in meeting the MS4 regulatory compliance requirements, the department requests that the Board of Public Works establishes a Board of Public Works - City of Bristol MS4 Steering Committee made up of the full Board of Public Works that would benefit the City’s continued commitment to fully comply with the General Permit MS4 requirements. The Board of Public Works Committee would provide the necessary oversight and support MS4 Storm Water permit primary goals:



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The Department of Public Works' proposal is for the Board of Public Works MS4 Steering Committee to meet at a minimum on a quarterly basis. The full Board of Public Works consisting of the Mayor, three city Council members, and three City residents will serve as the MS4 Steering Committee, and business will be conducted as an agenda item of the Board of Public Works.

In order to proceed with the Department of Public Works' recommendation, the following Board of Public Works action is recommended:

Establish a City MS4 Steering Committee made up of the full Board of Public Works. Said committee shall meet, at a minimum, on a quarterly basis. The Board of Public Works MS4 Steering Committee shall provide the necessary oversight and support with a primary goal to:

- **Reduce stormwater pollution**
- **Improve water quality**
- **Protect public health and safety by managing stormwater runoff through various programs and practices**
- **Track the program's success**

The Board of Public Works - City of Bristol MS4 Steering Committee purpose statement shall consist of the following:

In compliance with the City's General Permit for Discharge of Stormwater from Municipal Separate Storm Sewer Systems (MS4), permit number GSM000042, the City is to track the success of its MS4 Program against Key Performance Indicators (KPI's). Demonstrating to the City's constituents, as well as federal and state stakeholders, a firm commitment to continued protection and enhancement of waterways by ensuring the City's stormwater systems are in regulatory compliance. The Board of Public Works Committee will be comprised of City representatives to meet and review KPI reports on a quarterly basis. The KPI reports will provide program success metrics including:

- **Pollutant Loadings Tracking to monitor loadings entering the City's stormwater system with a goal to ensure continued loading reductions.**
- **Water Quality Standard Tracking to identify, act, and ensure discharges meet established standards.**



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- **Best Management Practice Tracking** to continually enhance, modify and/or adopt new practices.
- **Public Education and Outreach** effectiveness.
- **Illicit Discharge Detection and Elimination (IDDE) Incident Tracking** to verifying accountability and enforcement.
- **Construction Site Runoff Control Tracking** to verify contractor's properly managed and controlled runoff from construction sites.
- **Post-Construction Stormwater Management Tracking** reviewing the effectiveness of stormwater controls after construction is completed.
- **Pollution Prevention/Good Housekeeping Tracking** ensuring City operations minimize stormwater pollution.

A link to the City's 2024 annual report prepared by the Department of Public Works is provided.

<https://ct-bristol2.civicplus.com/1053/Municipal-Separate-Storm-Sewer-System-MS>

Copies of the EPA audit request along with the latest Department of Public Works and Sewer Department response is attached (link below). Please note the City's engineering consultant BL Companies has indicated on the EPA audit letter the City Department (DPW or Sewer) responsible for requested items.

<https://blcompanies.files.com/f/a72bf25ca201562f>

Based on a compliance review of the Department of Public Works' MS4 Storm Water documentation, the lack of storm water testing, in particular wet weather sample, is a concern. The Department has requested a proposal from BL Companies to prepare a defined sample plan along with staff training to implement an MS4 Storm Water compliant sampling program. The estimated cost of the work is approximately \$25,000. Funding would be available from within the Department's operations account. The Department's certified response to EPA indicates a commitment to obtain a consultant to prepare a MS4 storm water sampling program, therefore, DPW requests the following Board of Public Works action:

Authorize the Department of Public Works to procure the services of an Environmental consulting firm to prepare a MS4 compliant storm water monitoring



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and sampling program, including staff training. Funding for said services estimated at \$25,000 shall be established via transfer from within the Department's operation accounts.

Please feel free to contact me with any questions or concerns at 860-584-6113.



REGION 1

BOSTON, MA 02109

**URGENT LEGAL MATTER - PROMPT AND COMPLETE REPLY IS REQUIRED
SENT VIA ELECTRONIC MAIL**

Dated by electronic signature

Raymond A. Rogozinski, Director
Department of Public Works
City of Bristol
111 North Main Street
Bristol, CT 06010

Robert Longo, Superintendent
Water and Sewer Department
119 Riverside Avenue (Route 72)
Bristol, CT 06010

Re: EPA Request for Information Pursuant to Section 308 of the Clean Water Act
EPA Docket No. CWA-308-R01-FY25-14

Dear Mr. Rogozinski and Mr. Longo:

The United States Environmental Protection Agency ("EPA") is conducting an audit of the City of Bristol's compliance with the Connecticut General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems ("MS4 Permit"), Federal Clean Water Act ("CWA") Permit No. CTR030042 and of the City of Bristol's compliance with the Connecticut Individual Permit for the Discharge of Treated Sanitary Sewage ("Sanitary Wastewater Discharge Permit") from Publicly-Owned Treatment Works, Federal CWA Permit No. CT0100374. Although the City of Bristol has implemented a Stormwater Management Plan ("SWMP"), developed and enacted pursuant to the MS4 Permit, publicly-available records produced by the City reflect potential non-compliance with the MS4 Permit and the Clean Water Act.

The discharge of untreated sewage into receiving waterbodies endangers both human health and the environment; compliance with NPDES permits is therefore vitally important. A properly functioning MS4 system should prevent communication between separate storm sewer lines and sanitary sewer lines.

Section 308(a) of the Clean Water Act (CWA), 33 U.S.C. § 1318(a), authorizes EPA to require any owner or operator of any point source to provide information needed to determine whether there has been a violation of the CWA. The purpose of this Information Request is to gather information regarding violations of Section 301(a) of the CWA. Accordingly, EPA requires the Town to submit the information requested below (Attachment A) by February 17, 2025.

Please provide answers to each question as clearly and completely as possible. Information submitted pursuant to this Information Request shall be sent by electronic mail to the following addresses:

EPA Representative: Elliot Anderson
Anderson.elliott@epa.gov

CT DEEP Representative: Karen Allen
Karen.allen@ct.gov

CT DEEP Representative: Ivonne Hall
Ivonne.hall@ct.gov

Your responses to this Information Request must also include a statement of certification (Attachment B) that is signed and dated by a person who is authorized to respond to the Information Request.

Compliance with this Information Request is mandatory. Failure to respond fully and truthfully or to respond by the deadline specified above constitute violations of the CWA, subject to enforcement action, including the assessment of penalties. In addition, providing false, fictitious, or fraudulent statements or representations may subject you to criminal prosecution under 18 U.S.C. § 1001. EPA reserves its right to take further enforcement action pursuant to the CWA, and other applicable laws, including the right to seek injunctive relief and penalties, for violations of any requirements of the CWA.

If you have any questions regarding this Information Request, please contact Elliot Anderson at (617) 918-1179 or Anderson.elliott@epa.gov, or have your attorney contact Huddy Grandy, Enforcement Counsel at (617) 918-1028 or grandy.harinarayan@epa.gov.

Sincerely,

James Chow, Director
Enforcement and Compliance Assurance Division
Region 1

Enclosures

cc (via e-mail):

Jeff Caggiano, Mayor, City of Bristol

Karen Allen, CT DEEP

Ivonne Hall, CT DEEP

HariNarayan Grandy, Enforcement Counsel, EPA Region 1

Solanch Pastrana-Del Valle, EPA Region 1

**Attachment A
Information Requested**

Re: Request for Information

By February 17, 2025, provide to EPA the following information:

ILLICIT DISCHARGE DETECTION AND ELIMINATION (“IDDE”) PROGRAM

- | | |
|--------------------------------|--|
| Stormwater /
Sanitary Sewer | a) An updated inventory of all known locations where Sanitary Sewer Overflows (SSOs) have discharged to the MS4 in the last seven years, including all information required by the MS4 Stormwater General Permit, Appendix B, Section A, Subsection (4)(b). |
| Stormwater /
Sanitary Sewer | b) A copy of all written notices that Bristol submitted to the Connecticut Commissioner of Energy and Environmental Protection for all SSO occurrences in the last seven years pursuant to MS4 Stormwater General Permit Appendix B, Section A, Subsection (4)(c). |
| Stormwater | c) A copy of Bristol’s complete outfall and interconnection inventory developed pursuant to MS4 Stormwater General Permit Appendix B, Section A, Subsection (5). |
| Stormwater | d) A complete description of the City’s tracking framework developed pursuant to MS4 Stormwater General Permit Appendix B, Section A, Subsection (5), and an index of all inspections, screenings, and other activities that have occurred in the last five (5) years. |
| Stormwater | e) A copy of the system mapping developed pursuant to MS4 General Permit Appendix B, Section A, Subsection (6). |
| Stormwater | f) A copy of the City’s IDDE program developed pursuant to MS4 General Permit Appendix B, Section A, Subsection (7), to include all data collected and compiled pursuant to Subsection (7)(a) through (h). |
| Stormwater | g) A copy of all results from dry weather screening and sampling conducted pursuant to MS4 General Permit Appendix B, Section A, Subsection (8). |
| Stormwater | h) A copy of all indicators for tracking program success as described and required in MS4 General Permit Appendix B, Section A, Subsection (9). |

CAPACITY, MANAGEMENT, OPERATIONS AND MAINTENANCE (“CMOM”) PROGRAM

- | | |
|----------------|---|
| Sanitary Sewer | i) A copy of the 2008 Infiltration & Inflow (“I/I”) evaluation study commissioned by the City, and all pertaining documents and appendices. |
|----------------|---|

Sanitary Sewer j) A description of the City's planned projects to address the recommendations of the City's 2008 I/I evaluation study.

Sanitary Sewer k) A description of sewer rehabilitation projects performed by the City since 2018.

Sanitary Sewer l) A description of the City's removal of inflow from private sources (e.g. illegal sump pumps, cracks and/or loose joints in private sewer laterals, and roof down spouts) to the sanitary sewer system within the last five years.

Sanitary Sewer m) Estimates of the following flows for current conditions: (i) Peak I/I and (ii) Total Yearly I/I

Sanitary Sewer n) A description of the City's plans for future I/I evaluations, sewer rehabilitation projects, and private inflow source removal.

In addition, to the extent not provided in response to Requests (a) through (n) above, please provide the following:

Sanitary Sewer (1) Please provide any documentation or sewer ordinance that details how ownership of sewer laterals is addressed by the City ("sewer laterals" is defined as the sewer line connecting each building served by sanitary sewer to the mainline sewer in the street or city easement, to include "building sewers," "house connections," and "house connection laterals" as those terms are defined in the City of Bristol's Code of Ordinances, Section 22-16 (b)(5)). Please be specific and detail where City ownership of sewer laterals begins and ends.

Sanitary Sewer (2) Please describe how the City addresses blockages, cracks, and leaks in sewer laterals. Does the City respond and flush blockages and/or repair cracks and leaks, or does the City require the property owner to flush the blockage and/or repair the cracks and leaks? Please explain how such a decision would be made. In situations where the City requires a property owner to address blockages, cracks, or leaks, please describe, in detail, how the City responds to a property owner who is uncooperative or who refuses to address the issue, or a property owner who is unable to address the issue, and please provide examples of the City's response in these situations, with all accompanying written records.

Stormwater /
Sanitary Sewer (3) A description and the results of any **smoke testing** and **dye testing evaluations** of the City's storm water system and/or sanitary sewer system conducted by the City (whether by the City's Public Works Department, Sewer Department, or other) or by any sewer or stormwater consultant contracted by the City, within the last ten years, **and any written materials or other records (prepared by any party) related to the results of the smoke or dye testing evaluations**, including

any subsequent sampling results, reports, notes, sketches, drafts, analyses, photographs, video recordings, memoranda, related to, resulting from, or arising out of such evaluations.

Stormwater

- (4) A **description and explanation for the installation of one or more catch basins on Gridley Street in 2023 and 2024**, including all records related to their design, construction, and operation, the reason for their installation, all related sampling results before and after installation (including conditions at times of sampling), and a description of the circumstances in which the catch basin(s) receive flow.

Stormwater /
Sanitary Sewer

- (5) All **communications**, including letters, emails, chat or text messages, call or meeting notes, internal memoranda, public and/or nonpublic meeting minutes, agendas and recordings (to include agendas, minutes, and recordings of Code Enforcement Committee, Board of Public Works, and Board of Sewer Commission meetings and workshops), written guidance or advice from hired stormwater or water consultants or the City Engineer, notes from interdepartmental meetings, notes from meetings with outside parties such as consultants, engineers, or state agencies, and any other record related to, discussing, or resulting from:
- a. the City's evaluation of the results of all smoke testing or dye testing;
 - b. the installation of one or more catch basins on Gridley Street in 2023 or 2024
- (6) All recordings, minutes, and notes from the November 6, 2024 and December 4, 2024 Code Enforcement Committee meetings.

Attachment B
Statement of Certification

Complete and Include with Your Response

I declare under penalty of perjury that I am authorized to respond on behalf of the City of Bristol. I certify that the foregoing responses and information submitted were prepared by me, or under my direction or supervision and that I have personal knowledge of all matters set forth in the responses and the accompanying information. I certify that the responses are true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

By _____

(Signature)

(Printed)

(Title)

(Date)



Department of Public Works | 860.584.6125
Bristol Water & Sewer Department | 860.582.7431

February 28, 2025

Mr. James Chow, Director
Enforcement and Compliance Assurance Division
United States Environmental Protection Agency, Region 1
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

RE: EPA Request for Information Pursuant to Section 308 of the Clean Water Act
EPA Docket No. CWA-308-R01-FY25-14

Dear Mr. Chow:

On January 13, 2025, the City of Bristol was notified that the United States Environmental Protection Agency (EPA) was conducting an audit of the City's Connecticut General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 Permit), Federal Clean Water Act (CWA) Permit No. CTR030042 and of the City of Bristol's compliance with the Connecticut Individual Permit for the Discharge of Treated Sanitary Sewage (Sanitary Wastewater Discharge Permit) from Publicly-Owned Treatment Works, Federal CWA Permit No. CT0100374. The following information was requested by EPA and the City's response is noted immediately following:

Illicit Discharge Detection and Elimination (IDDE) Program

a) An updated inventory of all known locations where Sanitary Sewer Overflows (SSOs) have discharged to the MS4 in the last seven years, including all information required by the MS4 Stormwater General Permit, Appendix B, Section A, Subsection (4)(b).

An updated inventory of all known locations where SSOs have discharged to the MS4 between 2018 and 2024 is provided in Attachment A.

b) A copy of all written notices that Bristol submitted to the Connecticut Commissioner of Energy and Environmental Protection for all SSO occurrences in the last seven years pursuant to MS4 Stormwater General Permit Appendix B, Section A, Subsection (4)(c).

Copies of all available written notices that Bristol submitted to CTDEEP between 2018 and 2024 are provided in Attachment B. The City of Bristol is attempting to locate one written notice for the SSO that occurred at 126 South Street on June 10, 2019.

c) A copy of Bristol's complete outfall and interconnection inventory developed pursuant to MS4 Stormwater General Permit Appendix B, Section A, Subsection (5).

A complete inventory of all outfalls and interconnections will be provided by April 18, 2025.

d) A complete description of the City's tracking framework developed pursuant to MS4 Stormwater General Permit Appendix B, Section A, Subsection (5), and an index of all inspections, screenings, and other activities that have occurred in the last five (5) years.

All outfalls and interconnection locations are mapped in GIS. The City of Bristol regularly inspects stormwater outfalls and inspection data is tracked in an excel spreadsheet. The spreadsheet is updated as new dry weather inspections are completed. Dry weather and wet weather screening results are tracked on an excel spreadsheet, which is updated annually. System mapping is provided in Attachment E and dry weather and wet weather screening results are included in Attachment G.

Inspections are conducted to inventory the number of privately-owned retention ponds, detention ponds and other stormwater basins that discharge to or receive drainage from the permittee's MS4. Engineering Division staff conducted the 2024 inspections of 22 Stormwater Control Trust stormwater management ponds between September 16 through 19, 2024. Inspection findings for each of the ponds and the status of each of the ponds in regards to the Bristol Storm Water Trust are summarized in the Storm Water Detention Pond Report, dated September 23, 2024, which is included in Attachment D.

The City of Bristol's Environmental Protection Tech (EPT) and Environmental Engineer receive complaints from referred calls or on-site forms. Generally, the EPT responds to the complaint and addresses the action in a monthly report, which is reviewed by the Environmental Engineer, City Engineer, and Inland Wetland Commission. If a warning letter is issued, the EPT may include a "Summary of Urban Stormwater Pollutants" table from the 2004 Connecticut Stormwater Quality Manual to educate homeowners on water quality issues. Compliance fines may also be issued. Records are maintained in monthly Inland Wetlands, Environmental Protection Technician Reports. The reports are included in Attachment D and contain the following information:

- Location (identified with an address);
- Description;
- Date(s) of inspection; and
- Status.

The City of Bristol conducts site plan reviews that incorporate the consideration of stormwater controls and best management practices to prevent or minimize construction impacts on the MS4's water quality. The City of Bristol performs construction site inspections and, where necessary, initiates enforcement actions to ensure the adequacy of the installation, maintenance, operation, and repair of all construction and post-construction runoff control measures related to the City's MS4 system. Site plan and Special Permit approvals and inspections are maintained by the City of Bristol Zoning Commission and Inland/Wetlands.

The City of Bristol's Public Works is responsible for a wide range of activities including, but not limited to, maintenance and repair of storm water assets and street sweeping. Records of maintenance activities such as street sweeping, catch basin cleaning, and other pollution prevention measures are maintained by the Department of Public Works and included in Attachment D.

Directly Connected Impervious Area (DCIA) have been established for each basin using the Sutherland equation. The overall City map, calculations, tracking worksheet, and basin maps are maintained by the City of Bristol's Public Works and included in Attachment D.

e) A copy of the system mapping developed pursuant to MS4 General Permit Appendix B, Section A, Subsection (6).

The following system maps are provided in Attachment E.

- MS4 System
- Urbanized Area by Catchment Showing Catchment ID Number
- Urbanized Area by Catchment Showing Outfall ID Number
- Urbanized Area by Catchment Showing Locations of Water Quality Sediment Structures
- Historical Screening Locations
- Proposed 2025 Wet Sampling Locations

GIS shape files are available upon request.

f) A copy of the City's IDDE program developed pursuant to MS4 General Permit Appendix B, Section A, Subsection (7), to include all data collected and compiled pursuant to Subsection (7)(a) through (h).

A copy of the City's IDDE program is included as Attachment F.

g) A copy of all results from dry weather screening and sampling conducted pursuant to MS4 General Permit Appendix B, Section A, Subsection (8).

Outfall dry weather and wet weather results are tracked in an excel spreadsheet. Copies of the spreadsheet, outfall monitoring records, photographs, and lab reports are included in Attachment G.

h) A copy of all indicators for tracking program success as described and required in MS4 General Permit Appendix B, Section A, Subsection (9).

This information will be provided by April 18, 2025.

Capacity, Management, Operations and Maintenance Program

i) A copy of the 2008 Infiltration & inflow (I/I) evaluation study commissioned by the City, and all pertaining documents and appendices.

A copy of the Infiltration & inflow (I/I) evaluation study, prepared by Maguire Group Inc. in August 2008, is included in Attachment I.

j) A description of the City's planned projects to address the recommendations of the City's 2008 I/I evaluation study.

Descriptions of the Capitol projects completed to address recommendations in the City's 2008 I/I evaluation study are included in Attachment J.

k) A description of sewer rehabilitation projects performed by the City since 2018.

Descriptions of the sewer rehabilitation projects performed by the City since 2018 are included in Attachment K.

l) A description of the City's removal of inflow from private sources (e.g. illegal sump pumps, cracks and/or loose joints in private sewer laterals, and roof down spouts) to the sanitary sewer system within the last five years.

In 2020, through Charter Revision, the Public Works Department Sewer Division merged with the Bristol Water Department to provide better synergy and efficiency for the City. After the merger, the Water Department employees began investigating properties for any illegal sump pump connections during routine water meter change-outs.

Meter change-outs are performed every day by two or three Water Division Technicians. Meters ranging in size from 5/8" to 1" are changed out per the American Water Works Association's recommended eight-to-ten-year frequency. Approximately 2,500 residential meters are changed out each year. Meters larger in size are changed on a two-to-four-year frequency.

During all routine meter change-outs, Water Division Technicians investigate to determine if a sump pump is illegally connected to the sanitary sewer system. Each meter change has a Service Order recording the meter change and a check box was added to the form after the merger to document what the technician determined at the property.

Service Orders get returned to the Water and Sewer office to process the meter change. If the "yes" box is checked off indicating an illegal connection was witnessed, a certified letter is sent to the owner of record instructing them of the illegal connection, City Ordinance, and that the connection must be disconnected immediately. A copy of the letter is attached to the property owner's electronic file in the department's billing system. An email notification with a copy of the letter is sent to the Director of Sewer, Collection System and Maintenance Manager of Sewer, and the Sewer Inspector informing them of the illegal connection. Properties are entered into a spreadsheet for them to follow up on the disconnection and document the removal after inspection. A copy of a typical service order and an inventory of illegal connections to the sanitary sewer system are included in Attachment L.

The City's removal of inflow from private sources usually begins with city CCTV inspections of the mainline sanitary sewer. If a lateral defect is witnessed during inspection such as excessive clean water discharge, root intrusion, grease build-up, wet wipes or heavy rag deposits, a letter will be mailed to residents in the general service area explaining findings and solutions. Follow-up CCTV inspections will be conducted post letter mailing. Visual inspections of properties having downspouts terminate below grade are noted as locations of concern to further investigate during future smoke testing projects. Another avenue of inflow removal from private sources is the Sewer Division responding to stoppage calls from a resident or business. If a sewer stoppage has been determined to be in a private lateral, the homeowner or business owner is notified of the findings. An explanation of events is conveyed to the property owner. A Crew Leader, Collections System Manager or Director of Sewer will provide property owner with CCTV footage if requested, probable cause of lateral blockage, and advise to contact a licensed plumber/drain cleaner to clean, camera, and inspect the lateral and connection to City's mainline sanitary sewer. The property owner is directed to contact the Sewer Inspector-Construction Coordinator once the issue has been discovered, during the corrective repair process, and after the issue has been repaired for inspection and documentation.

Following the Water & Sewer merger in 2020, the Sewer Division hired a full-time Sewer Inspector-Construction Coordinator. The Sewer Inspector inspects all public and private sanitary sewer repairs and installations; works closely with private and state contractors; facilitates repairs in private lateral connections, state road manhole repairs, city and state paving manhole rehabilitation; answers customers questions; documents all repairs; and is working with GIS integrator to implement repairs, changes, etcetera into the sewer layer in the GIS program.

Following the merger, the Water and Sewer Department took the City's existing Sewer GIS layer and began expanding it with new ERSI capabilities to be more than just a mapping system. Our staff has collected GPS locations for over 90% of the existing manholes throughout the City and these GPS coordinates are all entered into the GIS. Although many enhancements are currently in the planning or implementation

stages with our GIS Engineer, we meet bi-monthly to continue to add the enhancements into the GIS. These enhancements, when complete, will include detailed FOG inspection reports; reports and digital pictures of all repairs in the sewer collection system; work orders and digital pictures of new private lateral connections; detailed blockage reports with conditions found corrective actions taken; video links of all sewer main camera inspections; and detailed reports of all routine jetting locations. It is the department's long-term plan to make the existing GIS system something our staff can use as a place to store historic records so that staff has easy access. We currently utilize over 15 iPads in the office and field with the expectation that more to be added when the enhancements are further integrated into the ESRI GIS. When completed in the next few years, we anticipate that the department will have invested well over a million dollars into the GIS system.

m) Estimates of the following flows for current conditions: (i) Peak I/I and (ii) Total Yearly I/I

- (i) Peak I/I: 24.4 MGD
- (ii) Total I/I: 5.0 MGD

The City of Bristol's Monthly Analysis Graph and Yearly Infiltration and Inflow Graph are included in Attachment M.

n) A description of the City's plans for future I/I evaluations, sewer rehabilitation projects, and private inflow source removal.

The City of Bristol will retain the services of a consultant (professional engineer) who will assist the City with the development of an Infiltration / inflow (I/I) Control Plan. The I/I Control Plan will discuss the following topics:

1. A Summary of existing historical documentation of I/I evaluations performed by the city.
2. A description of the sewer rehabilitation projects performed by the City over the past 10 years
3. A description of the private inflow sources (e.g., illegal sump pumps and roof down spouts) investigated and/or removed over the past 10 years
4. Estimates of Peak Infiltration, Peak Inflow, Public Inflow, Private Inflow, Total yearly I/I based on the results of previous studies
5. A description of the City's plans for future I/I evaluations
6. A description of the City's plans for sewer rehabilitation projects
7. A description of the City's plans for private inflow source removal and the development of a Private Inflow Removal Program (PIRP).

(1) Please provide any documentation or sewer ordinance that details how ownership of sewer laterals is addressed by the City ("sewer laterals" is defined as the sewer line connecting each building served by sanitary sewer to the mainline sewer in the street or city easement, to include "building sewers," "house connections," and "house connection laterals" as those terms are defined in the City of Bristol's Code of Ordinances, Section 22-16 (b)(5)). Please be specific and detail where City ownership of sewer laterals begins and ends.

City Ordinances Sections 22-16 General Provisions and 22-19. Design, construction, repair and maintenance of building sewers and connections are included in Attachment 1. Pertinent sections have been highlighted for easy reference.

(2) Please describe how the City addresses blockages, cracks, and leaks in sewer laterals. Does the City respond and flush blockages and/or repair cracks and leaks, or does the City require the property owner to flush the blockage and/or repair the cracks and leaks? Please explain how such a decision would be made. In situations where the City requires a property owner to address blockages, cracks, or leaks, please describe, in detail, how the City responds to a property owner who is

uncooperative or who refuses to address the issue, or a property owner who is unable to address the issue, and please provide examples of the City's response in these situations, with all accompanying written records.

The Bristol Sewer Division responds to sewer stoppages/blockages either through public/customer notification to the WPCF or as seen through field investigations. Once the stoppage is located and determined to be in a private lateral, the customer is notified. The Sewer Division does not participate in flushing, crack/ leak repair in any private lateral. The City requires the property owner to maintain their lateral system including the service connection wye, tee, chimney, back flow preventer, or other style service connection.

If a sanitary sewer stoppage occurs in a private lateral system and results in a hazard to the general public or otherwise, the Sewer Division will notify the Bristol Burlington Health District as well as the building department. Both agencies have the authority to condemn property as well as temporarily relocate affected tenants if not owner occupied and cease discharge if appropriate. A copy of the City's Standard Operating Procedure (SOP) for addressing blockages is included in Attachment 2.

The City has had very few uncooperative property owners not complying with the City's Sewer Code of Ordinances. In January 2022, the Sewer Division investigated a sink hole on Queen Street that was caused by a collapsed private sewer lateral. An attempt was made on-site to notify property owner; unfortunately, no one answered the door; contact information was left inside storm door. The property owner left a voice mail for the Director of Sewer denying any problems in the road was caused by their collapsed lateral.

The Superintendent reached out to the Bristol Burlington Health District due to raw sewage entering the ground from the collapsed lateral posing a health problem to the general public. The Health Director worked with the Superintendent and Sewer Director to enforce compliance. The property owner hired a professional contractor to repair the lateral and clean and neutralize the site. Correspondence is provided in Attachment 2.

(3) A description and the results of any smoke testing and dye testing evaluations of the City's storm water system and/or sanitary sewer system conducted by the City (whether by the City's Public Works Department, Sewer Department, or other) or by any sewer or stormwater consultant contracted by the City, within the last ten years, and any written materials or other records (prepared by any party) related to the results of the smoke or dye testing evaluations, including any subsequent sampling results, reports, notes, sketches, drafts, analyses, photographs, video recordings, memoranda, related to, resulting from, or arising out of such evaluations.

Smoke testing was conducted between July 15, 2024, and July 23, 2024, in sub-areas flowing into the Memorial Boulevard drainage basin. The purpose of testing was to ascertain potential inflow sources contributing to flows in the Memorial Boulevard drainage area.

A major focus of smoke testing was identifying and testing roof drains/leaders from former factories in the downtown area converted to office buildings. These old factories have very large flat roofs, providing significant square footage to collect rainwater. Another focus was to determine if any catch basins were directly connected to the sanitary sewer as well as any roof leaders, perimeter drains, uncapped cleanouts, and any other potential connections.

Due to the large vertical run of roof drains in the old converted factories from ground elevation, as well as there being no way of isolating roof drains to introduce smoke, dye flood testing was conducted. Dye testing confirmed the old factory roofs were correctly discharged to the storm water system; not the sanitary sewer collection system.

Smoke testing in all areas completed did not yield any direct connections with catch basins to the sanitary sewer that was witnessed. There were several indirect connections.

Dye flood testing of catch basins was conducted on Gridley Street; no direct connections were found. Dye flood testing on Gridley Street occurred at the upstream top side of the street (beginning of street). A 2" hose was connected to a hydrant and introduced into the first catch basin (storm water system) delivering a large quantity of water, dye was added. Each downstream manhole was opened and observed for a duration of 15-20 minutes. No direct connections were observed.

Several residential properties were found to be directly connected via roof leaders. Letters were mailed to connected properties directing them to disconnect and notify. Smoke was also witnessed emanating from older style plumbing vents, and missing clean out caps in yards. Two properties on Gridley Street had smoke directing out of retaining walls indicating compromised private laterals.

While smoke testing in the downtown area, smoke was noticed discharging from a manhole in a ROW on private property; indicating a failed manhole cover gasket. The manhole cover was replaced. While inspecting the manhole condition, a steady stream of clean water was noticed being discharged into the manhole from a business property. Staff witnessed what appeared to be a sump pump cycling; staff gained access into the business. A sump pump system was found to be pumping water into the sanitary system. The facilities maintenance manager indicated it runs most days the majority of time, even during dry periods.

The North Main Street section of the City is an area of concern to further investigate. Although the large prior factories didn't yield any roof drain connections to the sanitary sewer, a large trunk of storm water drainage runs under and adjacent to North Main Street with an outlet from an up-gradient pond. The North Main Street area of the City is in a low elevation with high ground water. Sump pump connections are believed to be present in this section potentially contributing to inflow. The City intends to fully inspect all properties for sump pump connections located in the North Main Street area in the Spring of 2025. If the results show connections to the sanitary sewer, a removal plan will be implemented between Public Works and Bristol Water & Sewer.

The City has had follow-up discussions via phone conversations with the smoke testing contractor with regard to locating the source of the indirect catch basin connections. Extensive dye flood testing would need to occur to locate the source(s); a formal meeting is set to occur in the spring of 2025 to explore all options with the smoke testing company. The City intends to follow the direction and guidance from the testing company to further investigate indirect connections associated with the storm water collection system in these areas of concern.

Smoke Test Findings are included in Attachment 3.

(4) A description and explanation for the installation of one or more catch basins on Gridley Street in 2023 and 2024, including all records related to their design, construction, and operation, the reason for their installation, all related sampling results before and after installation (including conditions at times of sampling), and a description of the circumstances in which the catch basin(s) receive flow.

The stormwater system on Gridley Street was not modified. As shown on the Gridley Street Drainage Layout provided in Attachment 4, no new drainage piping was installed. Only existing catch basins and catch basin tops were replaced, and one new catch basin was installed in 2024. No other improvements were made.

(5) All communications, including letters, emails, chat or text messages, call or meeting notes, internal memoranda, public and/or nonpublic meeting minutes, agendas and recordings (to include agendas, minutes, and recordings of Code Enforcement Committee, Board of Public Works, and Board of Sewer Commission meetings and workshops), written guidance or advice from hired stormwater or water consultants or the City Engineer, notes from interdepartmental meetings, notes from meetings with outside parties such as consultants, engineers, or state agencies, and any other record related to, discussing, or resulting from:

- a. the City's evaluation of the results of all smoke testing or dye testing;**
- b. the installation of one or more catch basins on Gridley Street in 2023 or 2024**

The following communications are included in Attachment 5.

- Emails
- 2024 Sewer Agendas and Minutes

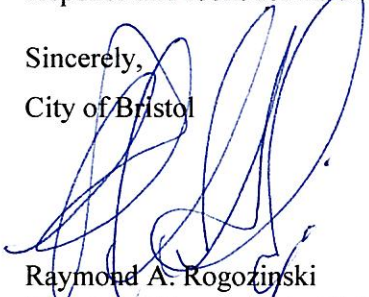
The City of Bristol has made a diligent effort to compile all emails related to a) and b) above. To the best of our knowledge, the information contained in Attachment 5 is complete. If additional emails or information are discovered, they will be promptly forwarded to EPA under a separate cover.

(6) All recordings, minutes, and notes from November 6, 2024 and December 4, 2024 Code Enforcement Committee meetings.

Agendas, meeting minutes, and links to the recordings for the November 6, 2024 and December 4, 2024 Code Enforcement Committee meetings are included in Attachment 6.

The City of Bristol will be following up within the extension period with information not provided in this response and looks forward to working with EPA on resolution of the audit.

Sincerely,
City of Bristol



Raymond A. Rogozinski
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raymondrogzinski@bristolct.gov
860-584-6125



Robert Longo
Superintendent – Water and Sewer Department
robertlongo@bristolct.gov
860-582-7431

Attachments

cc (via e-mail):

Jeff Caggiano, Mayor, City of Bristol
Karen Allen, CT DEEP
Ivonne Hall, CT DEEP
Elliot Anderson, EPA Region 1
HariNarayan Grandy, Enforcement Counsel, EPA Region 1
Solanch Pastrana-Del Valle, EPA Region 1



Department of Public Works | 860.584.6125

MEMORANDUM

DATE: May 5, 2025 updated August 28, 2025

TO: Mayor Jeffrey Caggiano
Flood Erosion Control Board
Board of Public Works
FROM: Raymond A. Rogozinski, P.E., Director of Public Works

RE: PEQUABUCK RIVER – WATER SURFACE ELEVATION GAUGING STATION/FLOOD DETECTION SYSTEM

The Department of Public Works currently funds the USGS water gauge station that measures the water surface elevation of the Pequabuck River. The cost to operate the station is \$16,800 per year. The USGS gauge station is on the Pequabuck River, upstream from the Central St (Forestville) Bridge along Broad St, approximately 1,000 Ft east of the Todd St intersection with Broad St. A link to the web access is provided below:

<https://waterdata.usgs.gov/monitoring-location/01189000/>

Access is available to the Department of Public Works, emergency services, and the general public, and is used by DPW to monitor the Pequabuck River water surface elevations associated with flooding. Continuing the operation of the river gauging station after the USGS ceased funding in 2018, was a recommendation of the Regional Pequabuck River Study. Using the USGS website, river gauge water levels can be preset to send alarms to users as notification of flooding. DPW utilizes the station to determine when street flooding will occur. The value of monitoring the water surface elevation of the Pequabuck River is not limited to the flood elevation at the location of the specific water gauging station. Central St. Bridge is one of the first areas within the City that floods, and is used as an indicator of additional flooding during a large storm event.

DPW has investigated alternatives that would allow the City to monitor flood elevations at a reduced cost. DPW is proposing to cease funding of the USGS station and install a radar detection system to measure water surface elevations and monitor weather conditions. Equipment cost will be \$8,470, with an annual cost of the monitoring system of \$320 per year. Proceeding with the new system will reduce yearly cost from \$16,800 to \$320/year, and the initial \$8,150 capital cost will be paid back, relative to the USGS annual cost, in a little over 6 months.

Based on the recommendation of DPW the Board of Public Works approved the following action:

Approve the Department of Public Works' request to transfer \$8,500 from the unused Snow Operation Vendor account (0013018-544410) to procure a radar water monitoring system and weather station installed at the Central St Bridge. Said action will include the elimination of the existing USGS water gauging station, and reduce annual cost from \$16,800 to \$450 per year with a capital investment of \$8,050.

The new equipment will be installed in the form of a pole fastened to the Central St bridge located in Forestville. It will operate using solar power. Access to the monitoring will NOT be public, meaning the general public will not have access to river water surface elevations. With that said, user access is NOT limited, and all City personnel will be provided access. In addition, if there is need to provide designated property owners along the river with river elevations, DPW can arrange communications. The proposed equipment/monitoring system can support monitoring stream gauge information provided on cell phone. Catalog cuts of the proposed equipment are attached.

Delivery of the equipment is scheduled for October, 2025. DPW has notified USGS that the City will not be executing the yearly contract to maintain the Pequabuck River gauging station.

Please feel free to contact me with any questions or concerns at 860-584-6113.