

MS4 General Permit
Town of Newington 2024 Annual Report

Permit Number GSM 000060

January 1, 2024 – December 31, 2024

Primary MS4 Contact: Chris Zibbideo, Town Engineer, 860-665-8572, czibbideo@newingtonct.gov

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

Part I: Summary of Minimum Control Measure Activities

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

1.1 BMP Summary

BMP	Activities in current reporting period	Sources Used (if applicable)	Method of Distribution	Audience (and number of people reached)	Measurable Goal	Department / Person Responsible	Additional details
1-1 Implement public education and outreach	Met with the Connecticut River Coastal Conservation District (CRCD) and obtained brochures.	Brochures from CRCD	Make materials available in the public library and Town Website	Residents	Procure pamphlets for pet waste, bacteria, fertilizer use, and illicit discharge	Town Engineer	Materials have been procured and are displayed at the Town library.
	MDC Household Hazardous Waste collection held April 27, 2024 at the Town Garage.	NA	Town Website, Email, Facebook	Residents	Hold event.	Highway Department Superintendent	
1-2 Address education/ outreach for pollutants of concern	Labels on catch basins, uploading brochures and educational material to the Town website.	Brochures from CRCD	Town Website	Residents	Number of catch basins labeled, Materials posted.	Town Engineer	

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

Continue to display and replenish materials at the Town library. Track how many are being taken/replenished to estimate how many people are reached.

Provide another MDC Household Hazardous Waste collection in late April / early May 2025.

Perform leaf collection annually and advertise dates on social media and website.

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

2.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Location Posted	Additional details
2-1 Final Stormwater Management Plan publicly available	Complete	No changes	March 29, 2017	Town Engineer	2016	https://www.newingtonct.gov/DocumentCenter/Home/View/151	
2-2 Comply with public notice requirements for Annual Reports (notice by 1/31/25, posting by 2/15/25)	In progress	2024 annual report prepared and public notice posted	Public notice posted and annual report posted on the town website	Town Clerk	January 31, 2025	https://www.newingtonct.gov/Archive.aspx?AMID=42	

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

Hold quarterly stormwater committee meetings to review Stormwater Management Plan implementation progress.

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

3.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
3-1 Develop written IDDE program	In progress	Town is in process of completing written IDDE program using the CT IDDE program template.	Develop written plan of IDDE program	Town Planner	Plan to be completed in 2025.	Manholes and basins are currently inspected and cleaned during paving operations. Approximately 5% of the system is inspected annually.
3-2 Develop list and maps of all MS4 stormwater outfalls in priority areas	Complete	Maps are adjusted as new information becomes available.	Map exists in GIS	Chief Information Officer	2023	
3-3 Implement citizen reporting program	In Progress	Held initial meeting to form plan and action items.	When a link to report a complaint exists	Town Planner	December 18, 2024	
3-4 Establish legal authority to prohibit illicit discharges	In Progress	Planned for incorporation into the next edit of the LID regulations as part of the zoning laws	When regulation exists	Town Manager	December 18, 2024	
3-5 Develop record keeping system for IDDE tracking	In Progress	Ongoing IDDE tracking.	Record is being used and maintained	Town Engineer	December 18, 2024	
3-6 Address IDDE in areas with pollutants of concern	In Progress					Plan to address this as part of the written IDDE program.

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

Develop a written IDDE plan that includes an IDDE tracking spreadsheet. Post the plan to the stormwater website.

Develop and maintain IDDE tracking spreadsheet and train employees involved in IDDE program to log entries.

Add an option in the “Report a Concern” section of the Town website (CivicPlus) for IDDE reporting.

Incorporate IDDE authority into LID regulations.

3.3 Provide a record of all citizen reports of suspected illicit discharges and other illicit discharges occurring during the reporting period and SSOs occurring between January 1, 2024 and December 31, 2024 using the following table. Illicit discharges are any unpermitted discharge to waters of the state that do not consist entirely of stormwater or uncontaminated groundwater except those discharges identified in Section 3(a)(2) of the MS4 general permit when such non-stormwater discharges are not significant contributors of pollution to a discharge from an identified MS4.

Location (Lat long/ street crossing /address and receiving water)	Date and duration of occurrence	Discharge to MS4 or surface water	Estimated volume discharged	Known or suspected cause / Responsible party	Corrective measures planned and completed (include dates)	Sampling data (if applicable)
No Illicit discharges observed or reported.						

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

Method used to track illicit discharge reports	Location and nature of structure with failing septic systems	Actions taken to respond to and address the failures	Impacted waterbody or watershed, if known	Dept. / Person responsible
No known septic failures				

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

Illicit discharges were not observed during catch basin cleanings and catchment network inspections. Illicit discharge detection methods and tracking will be included in a written IDDE plan. General civic complaints are tracked with CivicPlus. None were noted for IDDE in the 2024 reporting period.

3.6 IDDE reporting metrics

Metrics	
Estimated or actual number of MS4 outfalls	328 Total Outfalls
Estimated or actual number of interconnections	327 Drainage Manholes
Outfall mapping complete	100%
Interconnection mapping complete	100%
System-wide mapping complete (detailed MS4 infrastructure)	100%
Outfall assessment and priority ranking – outfall locations have been reviewed for accessibility, safety, and catchment area in the impaired receiving waters. Outfalls that were most representative and available were sampled. Formal screening was not completed.	100%
Dry weather screening of all High and Low priority outfalls complete	5% catch basins investigated in 2024 as part of 5% annual road replacement
Catchment investigations complete	5% catch basins investigated in 2024 as part of 5% annual road replacement
Estimated percentage of MS4 catchment area investigated	5% of catchment area was inspected in 2024 as part of an annual and rolling basis.

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

Illicit discharge training requirement will be included in the IDDE plan and will incorporate the training in 2025 items.

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

4.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
4-1 Implement, upgrade, and enforce land use regulations or other legal authority to meet requirements of MS4 general permit	Complete	Construction sites are being monitored and inspected during construction by the Town. Require plans to reference the updated CT Stormwater Quality Manual and Soil Erosion and Sediment Control Guidelines.	Controls being implemented and regulations followed.	Town Planner, Plan and Zoning.		CT DEEP updated the 2004 Stormwater Quality Manual in 2023 with a publication date of September 30, 2023 and an effective date of March 30, 2024. CT DEEP updated the 2002 Soil Erosion and Sediment Control Guidelines in 2023 with a publication date of September 30, 2023 and an effective date of March 30, 2024.
4-2 Develop/Implement plan for interdepartmental coordination in site plan review and approval	Complete	Coordination is being done. Biweekly meeting are held with building official, planner, and parks & rec, grounds, highway as needed.	Holding biweekly coordination meeting	Town Planner		

4-3 Review site plans for stormwater quality concerns	Ongoing	Reviewing calculations to make sure new coefficients are being used and current stormwater and soil erosion guidelines are being followed.	Project approval / permitting process	Town Engineer / Planning and Zoning / Building Department		Engaged consultant to review MS4 compliance activities
4-4 Conduct site inspections	Ongoing	Town inspects active construction sites to ensure regulations are being followed.	Document construction inspections in the project files	Town Engineer		
4-5 Implement procedure to allow public comment on site development	Complete	Residents can "Report a Concern" on the Town website (CivicPlus)	The system is being used	Chief Information Officer		
4-6 Implement procedure to notify developers about their obligations under the CT DEEP construction stormwater permit	Ongoing	Continued notifying permit applicants of their potential obligation to register under the CT DEEP construction stormwater permit through the building permitting process.	Require reference to the permit on the construction plans and request proof of registration, if required.	Town Engineer		

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

Integrate stormwater compliance checklist into review process once completed.

Draft a standard condition of approval for privately-owned retention and detention ponds that discharge to MS4.

Require new development to have an O&M plan for stormwater features.

Continue to engage a consultant to assist with MS4 compliance activities.

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

5.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date	Additional details
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	Not started)				(include the start date for anything that is 'in progress')	
5-1 Establish and/or update legal authority and guidelines regarding LID and runoff reduction in site development planning	Ongoing	Language planned and being added to LID regulations for incorporation and one large update to LID regulations.	LID update complete	Town Planner	2024	LID updates are planned for 2025 incorporation
5-2 Enforce LID/runoff reduction requirements for development and redevelopment projects	Ongoing	Language planned and being added to LID regulations.	LID update complete	Town Planner	2024	LID updates are planned for 2025 incorporation
5-3 Identify retention and detention ponds in priority areas (Due 7/1/20)	Ongoing	Review of existing mapping.	Prepare mapping / inventory of retention/ detention ponds Conduct and document annual inspections	Town Engineer	2025	
5-4 Implement long-term maintenance plan for stormwater basins and treatment structures	Ongoing	Repairs are made when needed, Town owned basins and structures are inspected annually.	Document inspections and repairs	Town Engineer		Difficulty with structures on private-owned sites to enforce action.
5-5 DCIA mapping	Not Started				2025	
5-6 Address post-construction issues in areas with pollutants of concern	Ongoing	Complete annual erosion and sedimentation / maintenance inspections with CT DEEP and NRCS on an annual basis at impaired waters (Piper Brook, Little Brook, Webster Brook)	Conduct and document inspections. Make and document corrective	Town Engineer / Highway Superintendent		Difficulty enforcing action on private-owned sites due to lack of authority.

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

Update the LID regs which also will include IDDE, operations and maintenance, etc.

Utilize the NEMO website listed below to complete the DCIA calculation/mapping.

Document retention and detention pond inspections and corrective actions. Update mapping as necessary.

5.3 Post-Construction Stormwater Management reporting metrics

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

Metrics	
Baseline (2012) Directly Connected Impervious Area (DCIA)	Not yet calculated.
DCIA disconnected (redevelopment plus retrofits)	0
Retrofit projects completed	0
DCIA disconnected	0%
Estimated cost of retrofits	0\$
Detention or retention ponds identified	98 Total detention ponds mapped

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

DCIA mapping planned for completion in 2025.

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

6.1 BMP Summary

BMP	Status (Complete, Ongoing, In Progress, or Not started)	Activities in current reporting period	Measurable Goal	Department / Person Responsible	Date completed or projected completion date (include the start date for anything that is 'in progress')	Additional details
6-1 Develop/implement formal employee training program	Ongoing	Two additional staff added in the Engineering department to bolster MS4 support.	Training complete	Town Engineer	Ongoing	
	Ongoing	Annual Highway Garage training includes stormwater training.	Training complete	Highway Superintendent	Ongoing	
6-2 Implement MS4 property and operations maintenance	Ongoing	Street sweeping, catch basin cleaning, road repairs being done. Detention ponds excavated and repaired, as needed.	Completion and documentation, as needed.	Highway Superintendent	Ongoing	
6-3 Implement coordination with interconnected MS4s	Ongoing	Continued communications with neighboring municipalities.	Maintain active coordination with neighboring municipalities.	Town Engineer	Ongoing	Good relationship with neighboring municipalities to work through issues that arise.
6-4 Develop/implement program to control other sources of pollutants to the MS4	Ongoing	Update existing fertilizer application plans, leaf collection plans, and vegetative debris management at the Town transfer Station.	Update plans annually, or as needed.	Parks and Recreations, Town Engineer, Highway Superintendent.	Ongoing	
6-5 Evaluate additional measures for discharges to impaired waters	Ongoing	Review fertilizer usage on town properties, management of waterfowl, leaf collection, vegetation management at the Town transfer station.	Review MS4 status annually and identify additional measures.	Parks and Recreations, Town Engineer, Highway Superintendent.	Ongoing	
6-6 Track projects that disconnect DCIA	Not started					

6-7 Implement infrastructure repair/rehab program	Ongoing	Town paves 5%of roads annually. Catch basins are inspected and cleaned at that time. Rehabilitation is completed as needed when deficiencies are identified. Additional damaged structures that are identified or reported are also repaired, as needed.	Continue rehabilitation program at 5% per year.	Highway Superintendent	Ongoing	
6-8 Develop/implement plan to identify/prioritize retrofit projects	Ongoing	Began preparing retrofit plan	Plan Finalized	Highway Superintendent	2025, and annual updates	
6-9 Implement retrofit projects to disconnect DCIA (goal of 1% annually)	Ongoing	Held meeting on December 18, 2024 to discuss DCIA mapping and goals.	Review development plans and identify DCIA disconnection opportunities as the arise.	Town Engineer	Ongoing	Only can address this with new development and redevelopment.
6-10 Develop/implement street sweeping program	Ongoing	Annual entire town street sweeping, completed in 2024 after the winter season	Complete event	Highway Superintendent	Ongoing	
6-11 Develop/implement catch basin cleaning program	Ongoing	Cleaned and inspected 5% of catch basins annually and as needed.	Complete 5% per year.	Highway Superintendent	Ongoing	
6-12 Develop/implement snow management practices	Ongoing	Implemented snow management practices. A formal plan exists in draft form.	Complete snow management in accordance with the plan.	Highway Superintendent	Ongoing	

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

Continue entire town annual street sweeping.

Continue annual 5% catch basin inspection and repair.

Continue annual DEEP/NRCS inspection to identify areas for repair and improvement.

Continue repair when the need is identified.

6.3 Pollution Prevention/ Good Housekeeping reporting metrics

Metrics	
Employee training provided for key staff	10/31/24
Street sweeping	
Curb miles swept	206 miles
Volume (or mass) of material collected	440 tons
Catch basin cleaning	
Total catch basins in priority areas (value will be less than or equal to total catch basins town or institution-wide)	unknown
Total catch basins town- (or institution-) wide	4632
Catch basins inspected	220
Catch basins cleaned	150
Volume (or mass) of material removed from all catch basins	5 tons
Volume removed from catch basins to impaired waters (if known)	unknown
Snow management	
Type(s) of deicing material used	Calcium Chloride
Total amount of each deicing material applied	1,035 tons
Type(s) of deicing equipment used	Salt Spreader
Lane-miles treated (A lane-mile is a mile of roadway in a single driving lane)	206 miles
Snow disposal location	NA
Staff training provided on application methods & equipment	10/31/24
Municipal turf management program actions (for permittee properties in basins with N/P impairments)	
Reduction in application of fertilizers (since start of permit)	0%
Reduction in turf area (since start of permit)	0%
Lands with high potential to contribute bacteria (dog parks, parks with open water, & sites with failing septic systems)	
Cost of mitigation actions/retrofits	0\$

6.4 Catch basin cleaning program

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

5% of the catch basins are cleaned annually.

6.5 Retrofit program

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

DCIA tasks not started. Opportunities will be identified during development and redevelopment.

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

DCIA disconnection can only be addressed during new development and re-development projects. Town Engineer will coordinate with Planning and Zoning to identify opportunities during the permitting process for development.

Part II: Impaired waters investigation and monitoring

1. Impaired waters investigation and monitoring program

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

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

Phosphorus ☒

Bacteria ☒

Other Pollutant of Concern (Turbidity) ☒

1.2 Describe program status

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

Attachment 1 – Outfall Mapping
Attachment 2 – Priority Outfall Maps
Attachment 3 – Analytical Results

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

2.1 Screening data

Outfalls along the impaired water bodies were inspected during dry and weather to evaluate the viability for sampling. Viable locations were inspected during wet weather to evaluate flow conditions. Six outfalls have been identified for sampling. One location at Little Brook, two locations at Webster Brook, and three locations at Piper Brook. Each location was chosen based on ability to access the outfall during a storm event, representativeness of the location, favoring outfalls with larger catchment radius, and property uses within the drainage area. Sampling data are provided under Section 4 below.

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

Pollutant of concern	Pollutant threshold
Nitrogen	Total N > 2.5 mg/l
Phosphorus	Total P > 0.3 mg/l
Bacteria (fresh waterbody)	E. coli > 235 col/100ml for swimming areas or 410 col/100ml for all others

	Total Coliform > 500 col/100ml
Bacteria (salt waterbody)	Fecal Coliform > 31 col/100ml for Class SA and > 260 col/100ml for Class SB Enterococci > 104 col/100ml for swimming areas or 500 col/100 for all others
Other pollutants of concern	Sample turbidity is 5 NTU > in-stream sample

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

No follow-up investigations were completed during this reporting period.

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

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

Outfall	Latitude / Longitude	Sample Date	Parameter(s)	Results	Name of Laboratory (if used)
Piper-Alumni (Outfall 137)	41.702074/ -72.746069	11/21/24	Phosphorus E. coli Total Coliform Turbidity Upstream Turbidity	ND 275.5 MPN/100ml >2419.6 MPN/100ml 2.62 NTU 21.9 NTU	Complete Environmental Testing, Inc. Stratford, CT.
Piper – Brookside (Outfall 93)	41.718483/ -72.726612	11/21/24	Phosphorus E. coli Total Coliform Turbidity Upstream Turbidity	0.89 mg/L >2419.6 MPN/100ml >2419.6 MPN/100ml 24.5 NTU 46.4 NTU	Complete Environmental Testing, Inc. Stratford, CT.
Piper – Mountain (Outfall 182)	41.720289/ -72.719284	11/21/24	Phosphorus E. coli Total Coliform Turbidity Upstream Turbidity	ND 1203.3 MPN/100ml >2419.6 MPN/100ml 2.77 NTU 65.5 NTU	Complete Environmental Testing, Inc. Stratford, CT.
Webster – Stamm (Outfall 202)	41.676123/ -72.749402	11/21/24	E. coli Total Coliform Turbidity Upstream	344.8 MPN/100ml >2419.6 MPN/100ml 3.15 NTU	Complete Environmental

			Turbidity	12.8 NTU	Testing, Inc. Stratford, CT.
Webster – Carr (Outfall 238)	41.670808/ -72.751928	11/21/24	E. coli Total Coliform Turbidity Upstream Turbidity	>2419.6 MPN/100ml >2419.6 MPN/100ml 13.4 NTU 11.3 NTU	Complete Environmental Testing, Inc. Stratford, CT.
Little Brook (Outfall 315)	41.653683/ -72.707419	11/21/24	E. coli Total Coliform	>2419.6 MPN/100ml >2419.6 MPN/100ml	Complete Environmental Testing, Inc. Stratford, CT.

All six samples exceed total chloroform standards. E. coli exceeds the swimming areas at all locations and non-swimming areas at all locations except Piper-Alumni(Outfall 137) and Webster-Stamm (Outfall 202). Phosphorus exceeded standards at one of the three locations at Piper Brook, Piper – Brookside (Outfall 93). Turbidity was above thresholds at all locations except Webster – Carr (Outfall 238). This sampling event was conducted on November 21, 24 after a prolonged period of drought. Bacteria concentration and turbidity could be biased high. The town of Newton intends to sampled in early spring 2025 to compare the data prior to conducting any follow-up investigations.

Part III: Additional IDDE Program Data

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

IDDE catchment review was not conducted during this monitoring period. Five percent of the town’s basins are inspected annually. No illicit discharges were identified.

Part IV: Certification

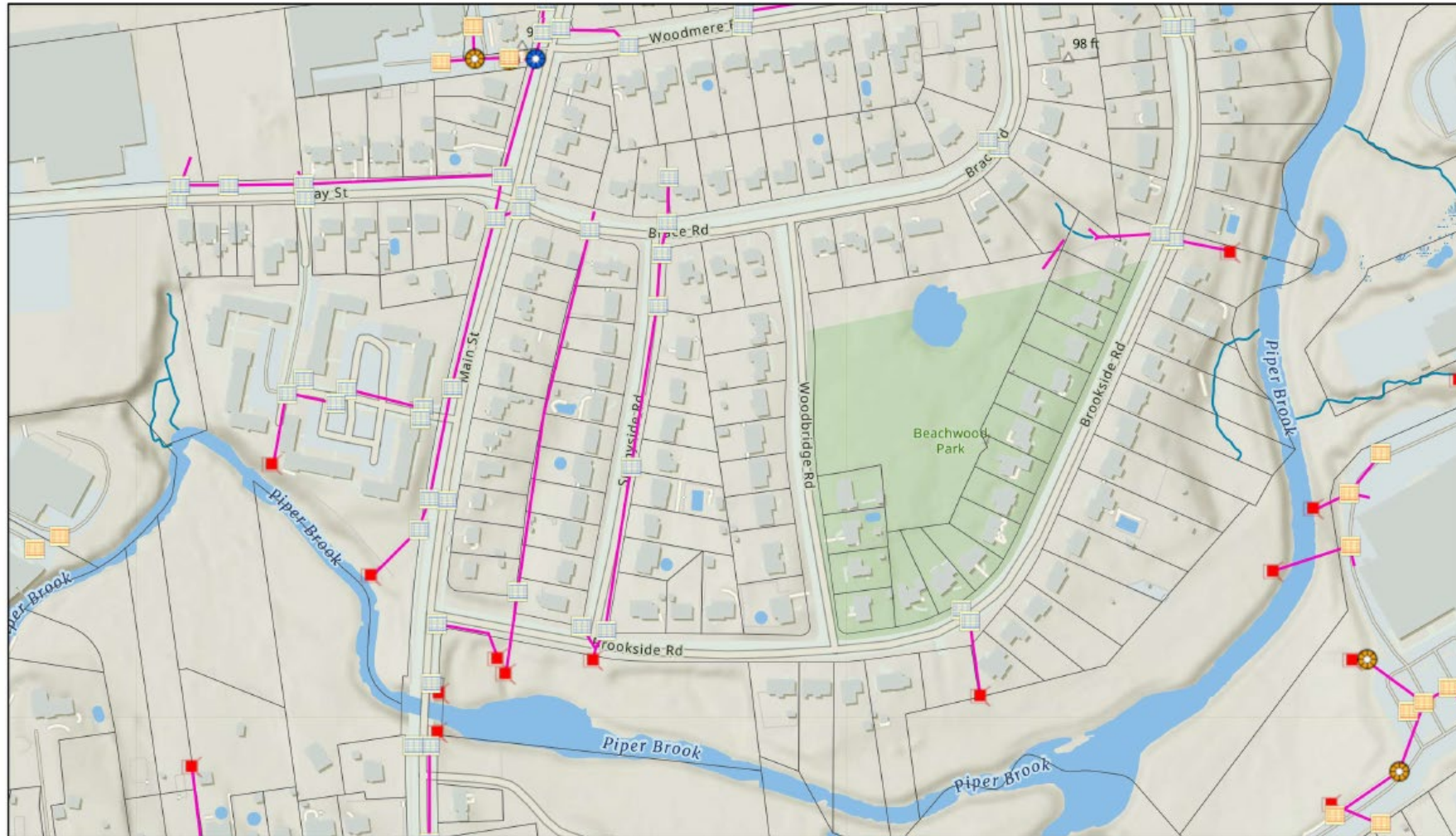
"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate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

Chief Elected Official or Principal Executive Officer	Document Prepared by
Print name:	Print name: Jeffrey Parillo
Signature / Date:	Signature / Date
Email:	Email: jparillo@ensafe.com

Attachment 1

Outfall Mapping



Piper Brook – Northern Section



4/4/2024, 9:49:19 AM

Drainage Catch Basin Drainage Manhole

 Private
 Town

 Private
 Town of Newington

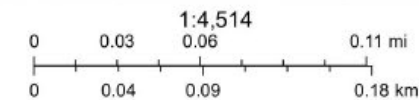
Drainage Hydro Separator

 Private

 Drainage Outlet

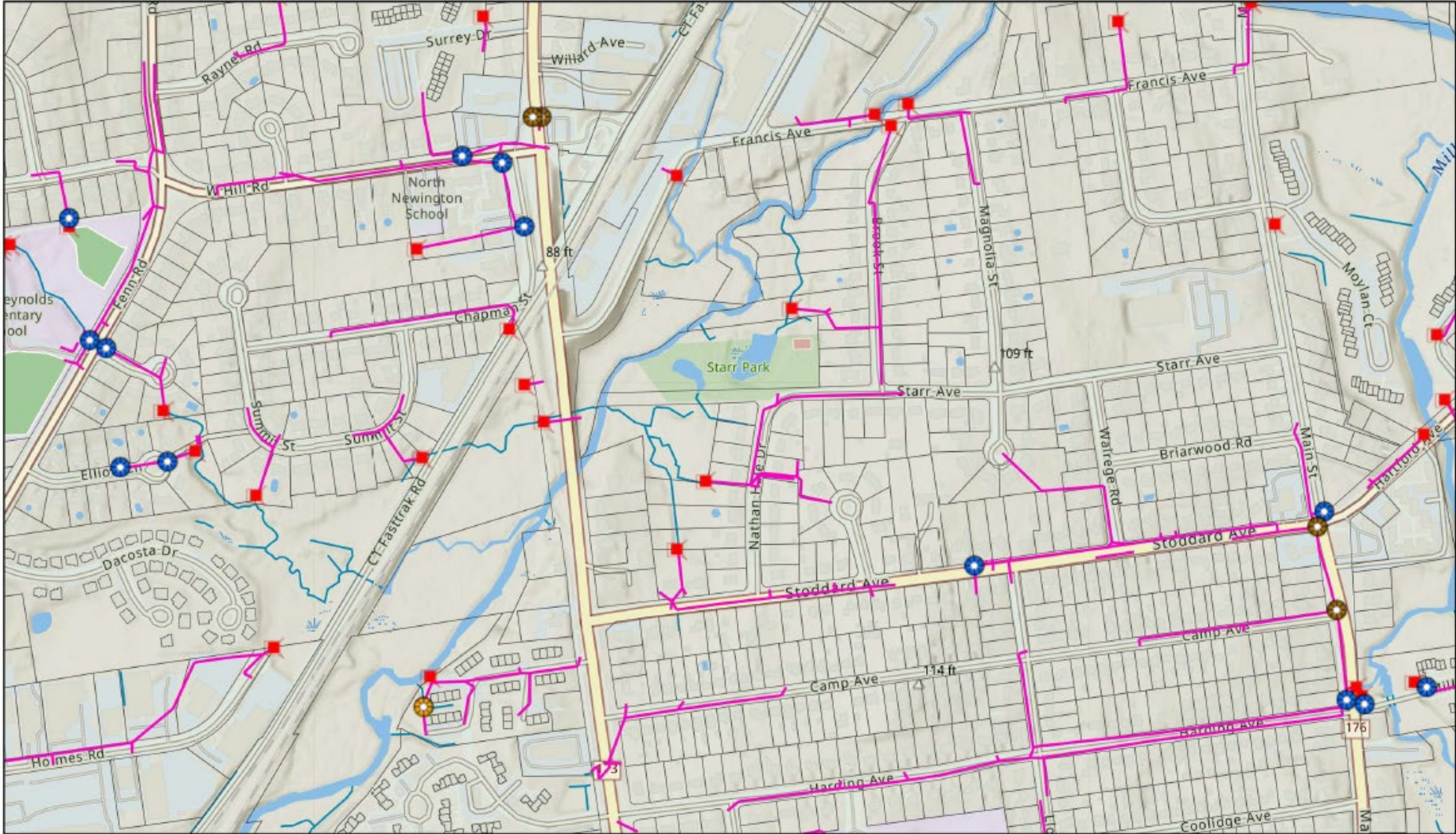
 Drainage Pipe

 Newington Parcels



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatasystrelen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, MDC, MassGIS, UConn/CTDEEP, © OpenStreetMap, Microsoft, Esri, TomTom.

Piper Brook – Central Section



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Drainage Manhole

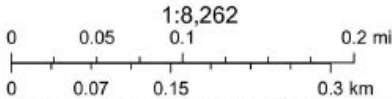
- Private
- State

Town of Newington

Drainage Outlet

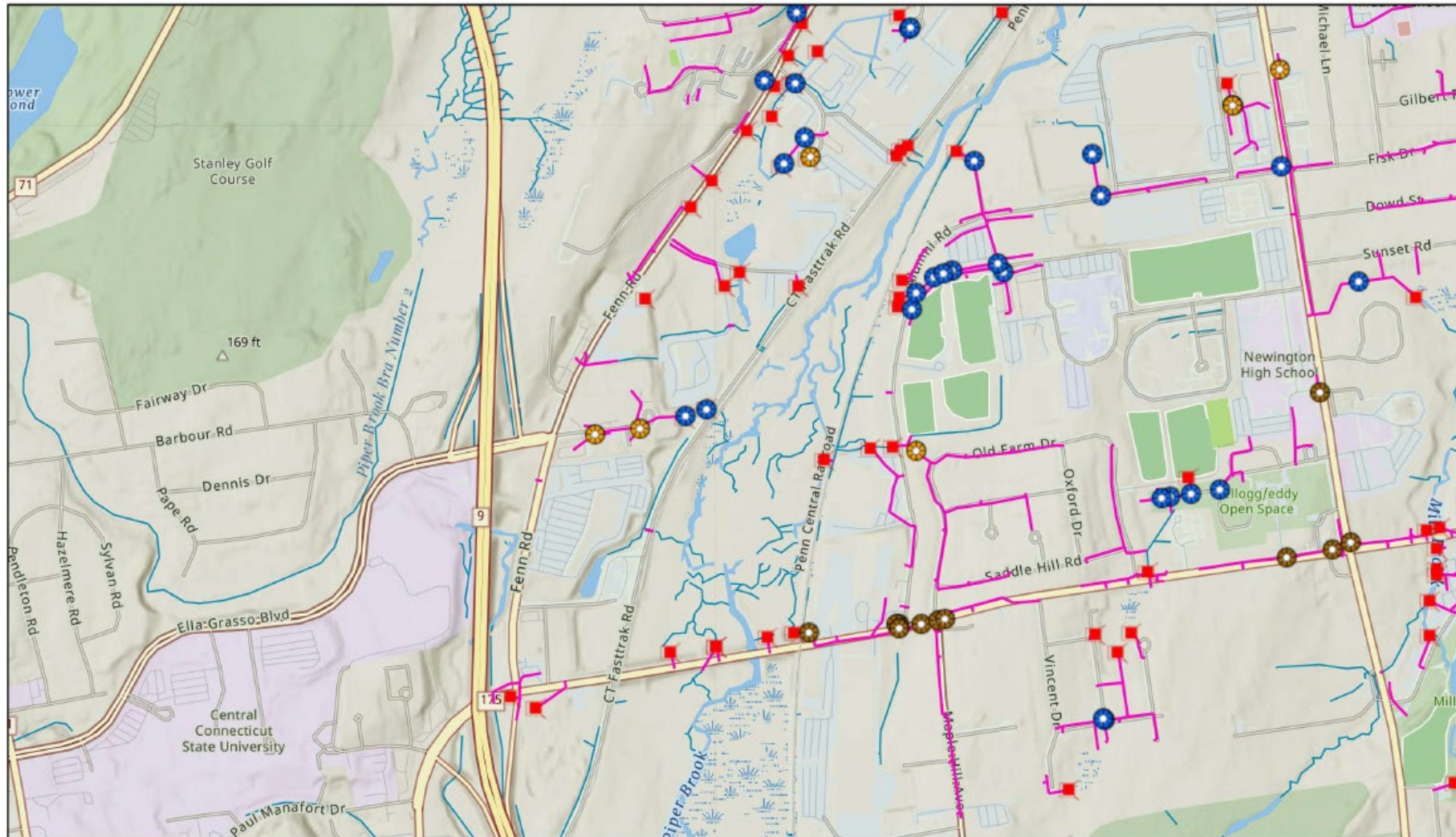
Drainage Pipe

Newington Parcels



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, USGS, Esri Community Maps Contributors, MDC, MassGIS, UConn/CTDEEP, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Piper Brook – Southern Section



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Drainage Manhole



Private



State



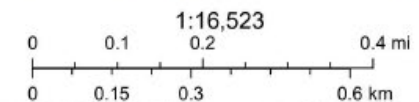
Town of Newington



Drainage Outlet

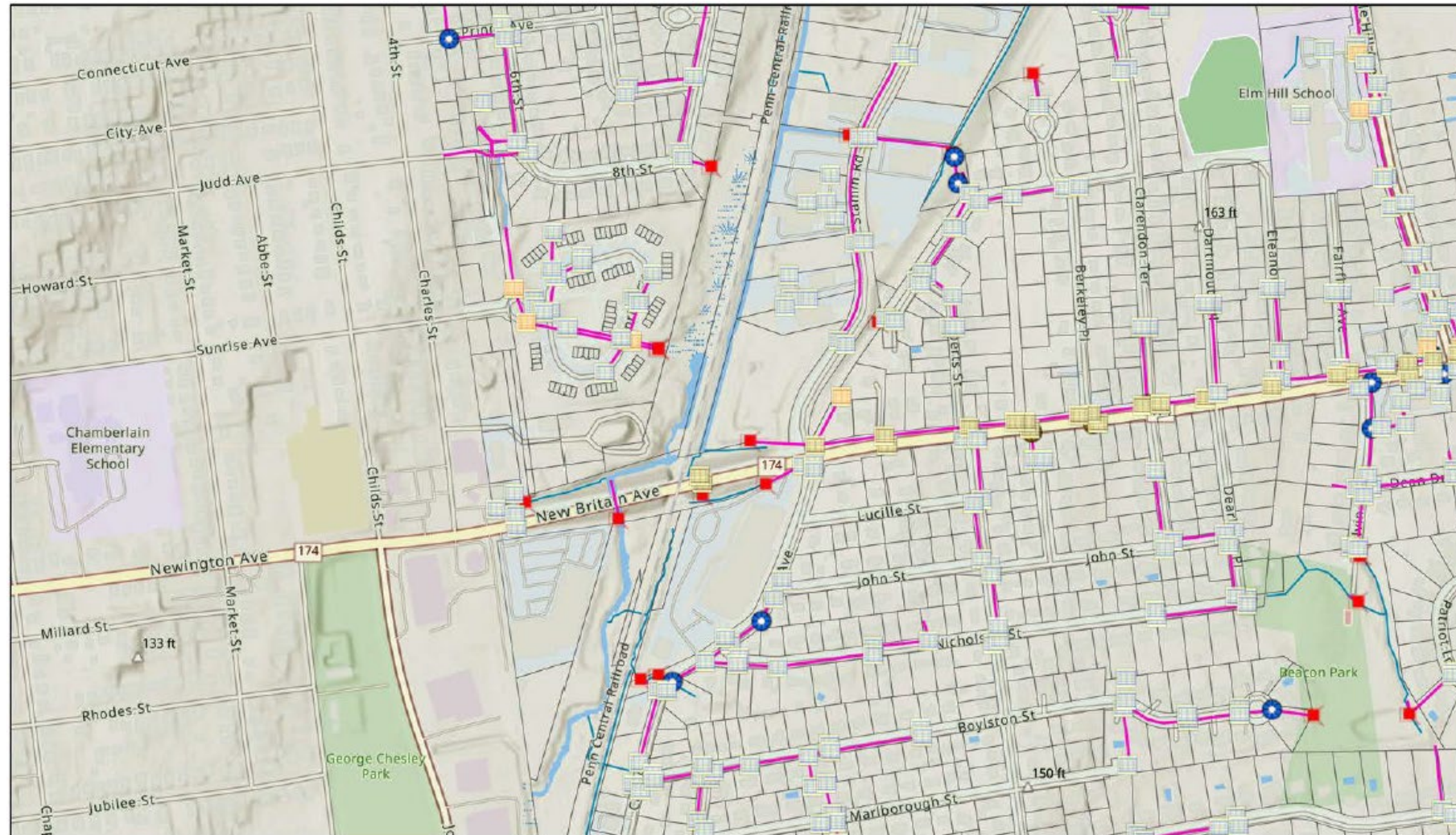


Drainage Pipe



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, USGS, Esri Community Maps Contributors, MDC, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Webster Brook – Northern Section



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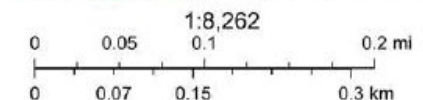
Drainage Catch Basin

- Private
- State

- Town
- Drainage Manhole
- State

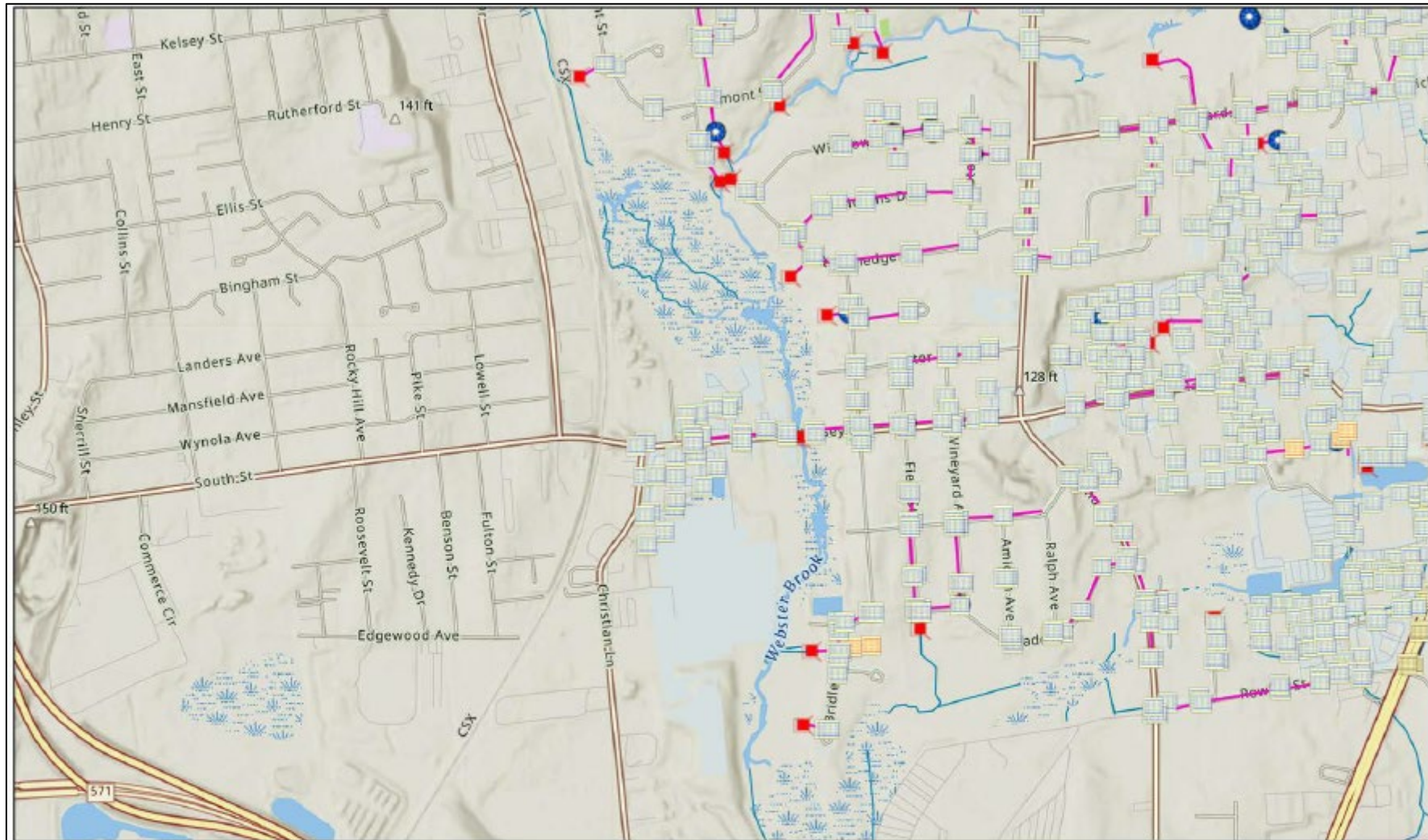
- Town of Newington
- Drainage Outlet

- Drainage Pipe
- Newington Parcels



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, USGS, Esri Community Maps Contributors, MDC, MassGIS, UConn/CTDEEP, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Webster Brook – Southern Section



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Drainage Catch Basin

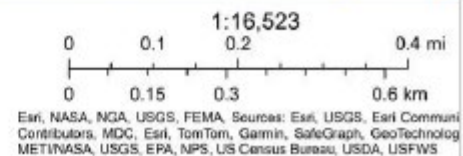
- Private
- State

- Town
- Town

Drainage Manhole

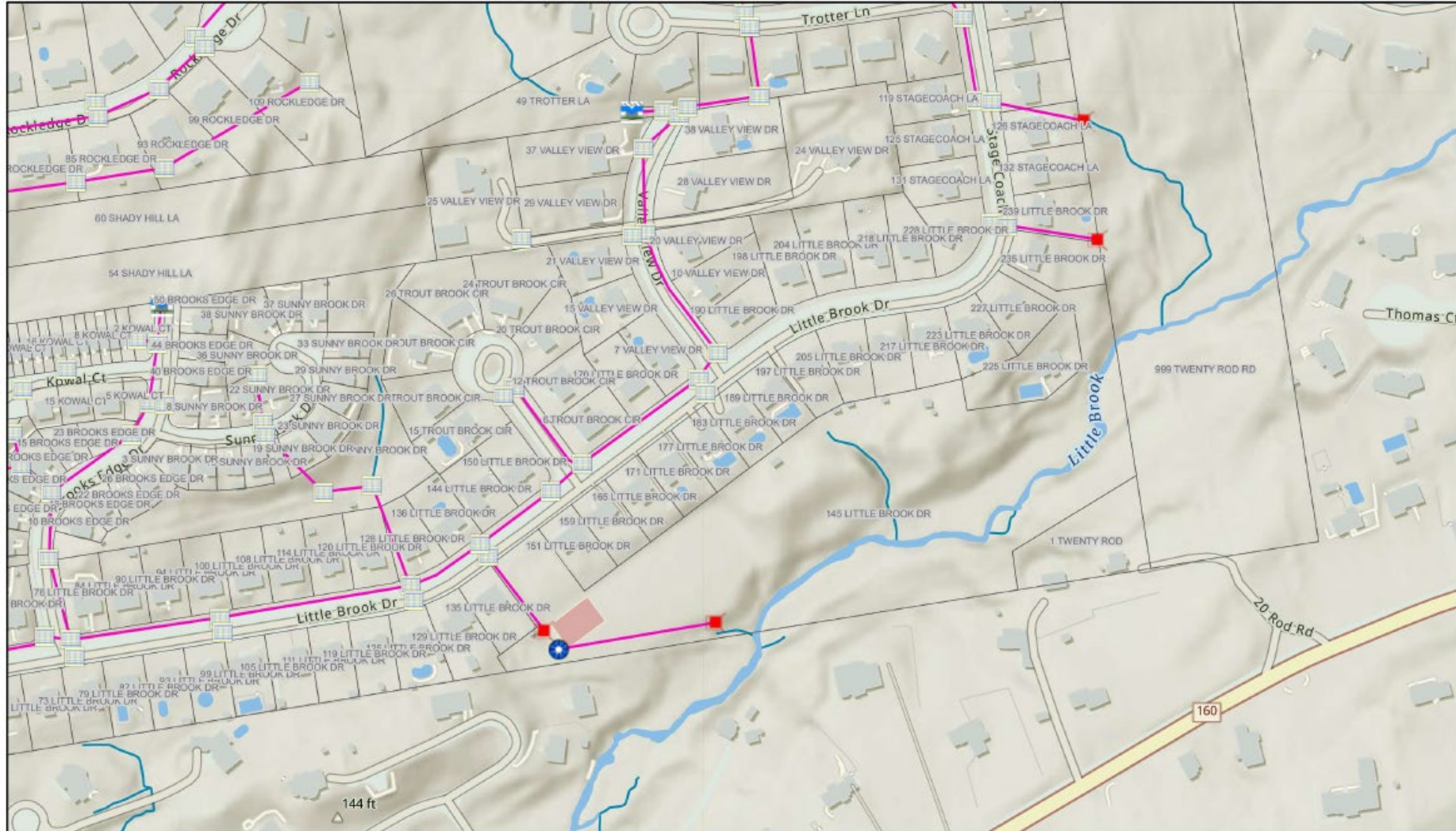
- Town of Newington
- Drainage Outlet

Drainage Pipe



Town of Newington
Newin

Little Brook



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Drainage Catch Basin Drainage Manhole



Town



Town of Newington



Drainage Inlet

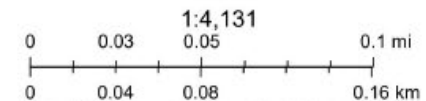


Drainage Outlet

Drainage Pipe



Newington Parcels



Sources: Esri, USGS, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastylreisen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, MDC, MassGIS, UConn/CTDEEP, © OpenStreetMap, Microsoft,

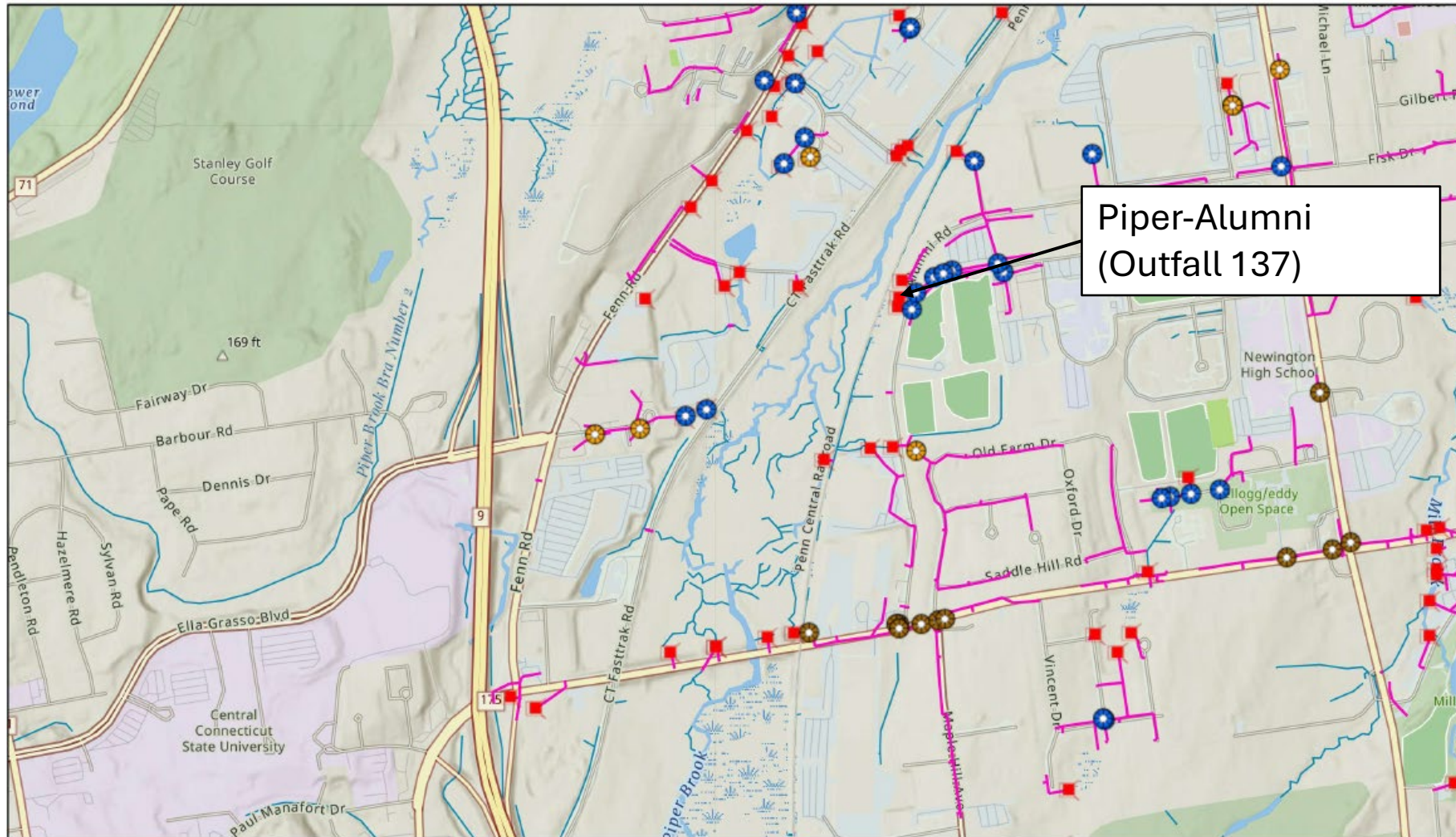
Town of Newington, CT GIS

Newington, CT

Attachment 2

Priority Outfall Maps

Piper Brook – Sampling Location



4/3/2024, 4:15:13 PM

Drainage Manhole



Private



State



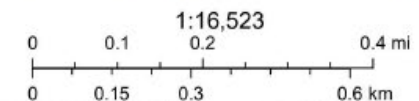
Town of Newington



Drainage Outlet

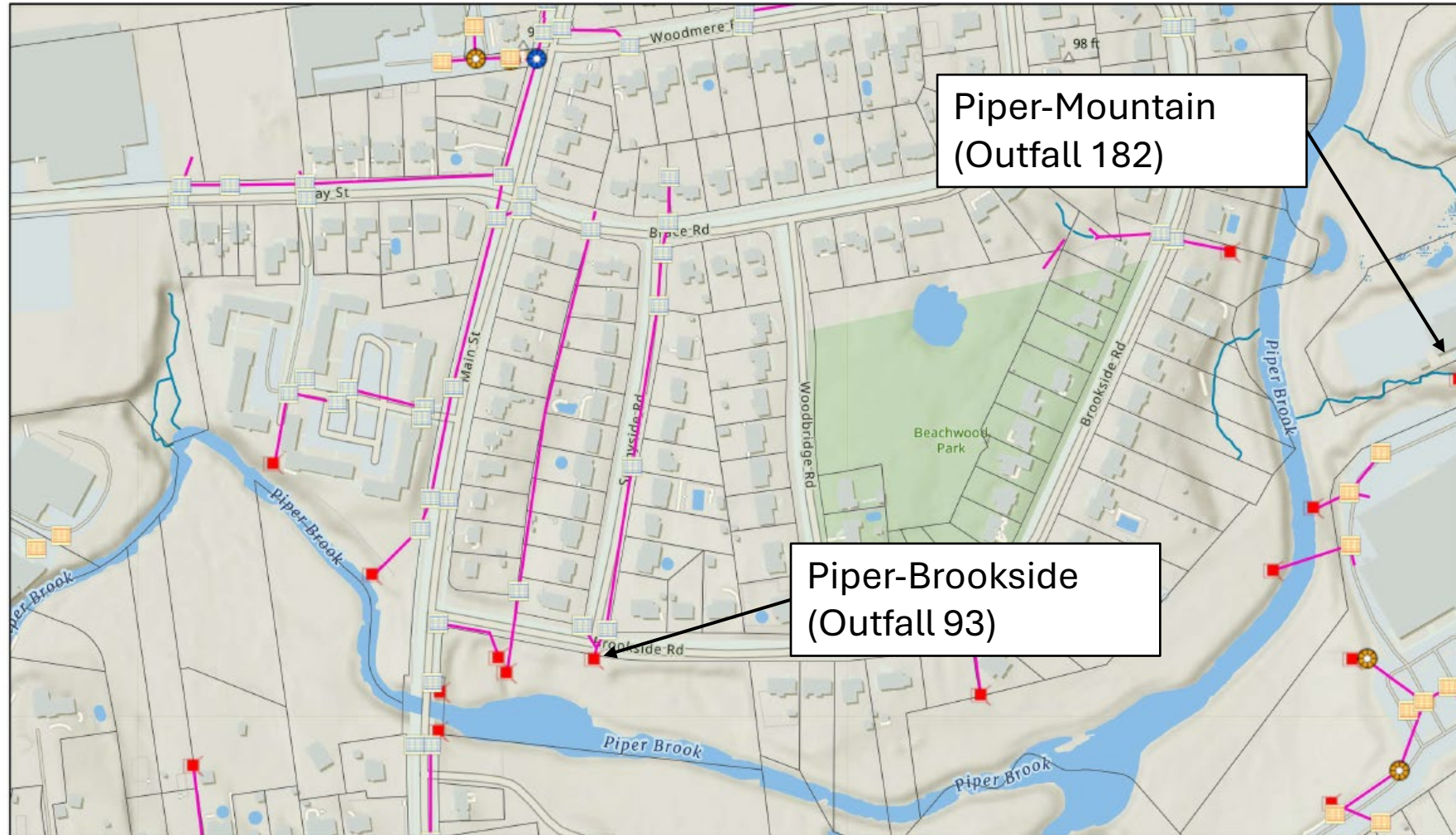


Drainage Pipe



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, USGS, Esri Community Maps Contributors, MDC, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS



Piper Brook – Sampling Locations



4/4/2024, 9:49:19 AM



Drainage Catch Basin Drainage Manhole

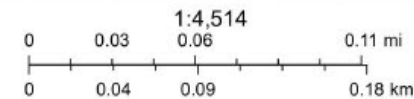
 Private
 Town

 Private
 Town of Newington

Drainage Hydro Separator

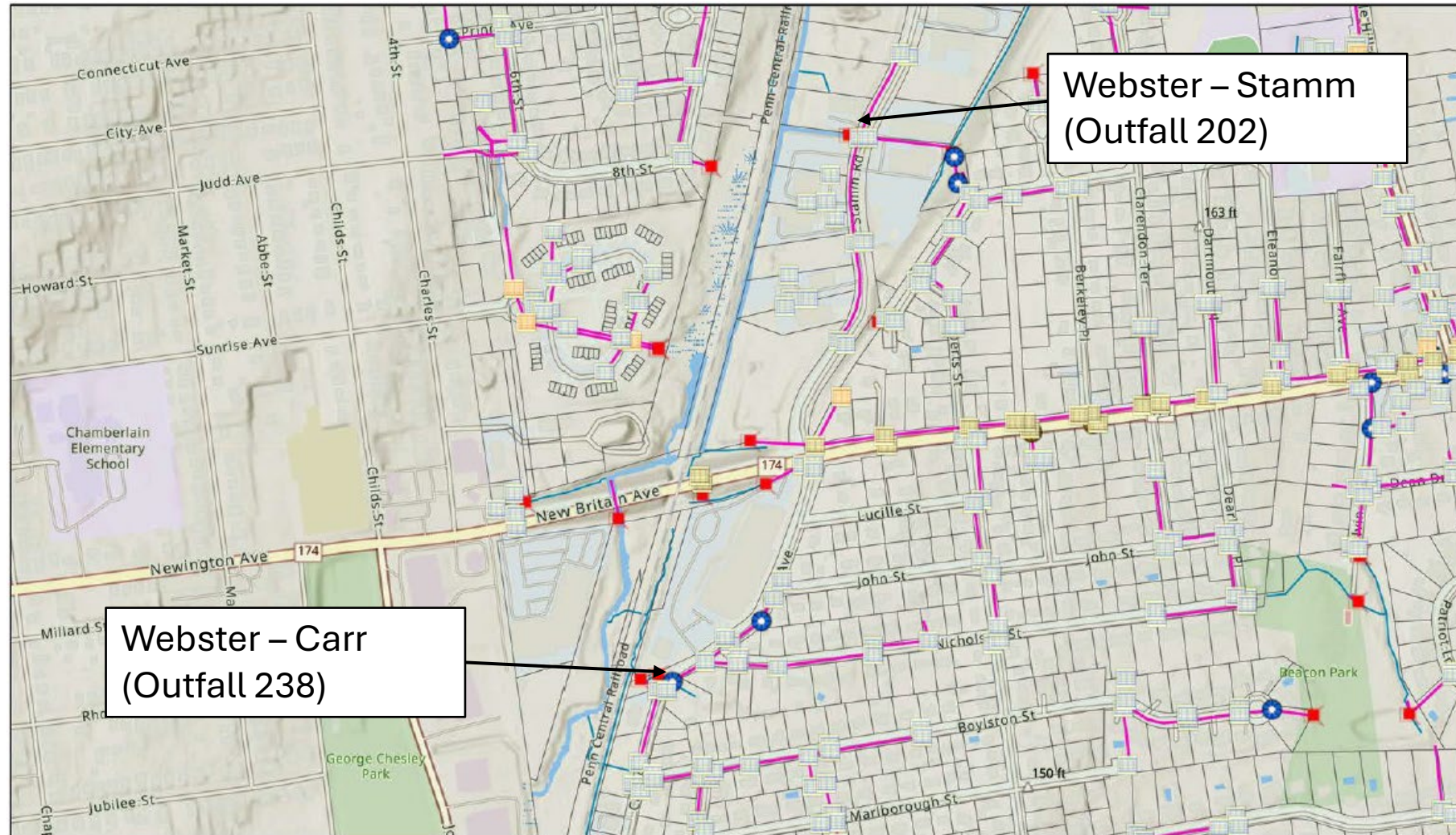
 Private
 Drainage Outlet

 Drainage Pipe
 Newington Parcels



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystrelen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, MDC, MassGIS, UConn/CTDEEP, © OpenStreetMap, Microsoft, Esri, TomTom.

Webster Brook – Sampling Locations



4/3/2024, 3:56:10 PM

Drainage Catch Basin

- Private
- State

Town

Drainage Manhole

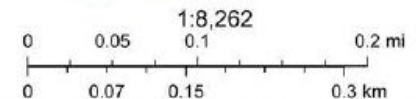
- State

Town of Newington

Drainage Outlet

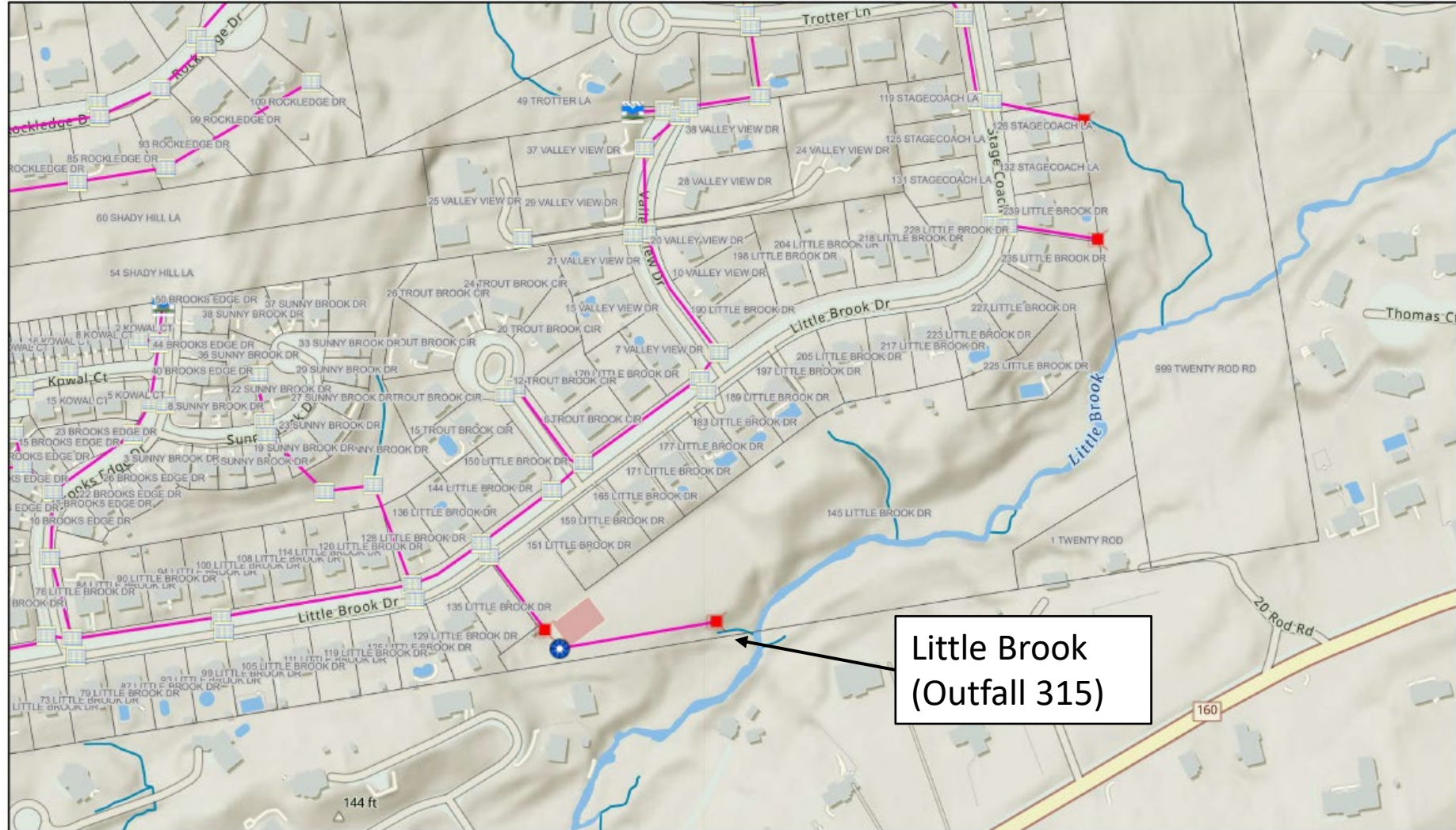
Drainage Pipe

Newington Parcels



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, USGS, Esri Community Maps Contributors, MDC, MassGIS, UConn/CTDEEP, © OpenStreetMap, Microsoft, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, USFWS

Little Brook - Sampling Location



4/3/2024, 3:39:29 PM

Drainage Catch Basin Drainage Manhole



Town



Town of Newington



Drainage Inlet



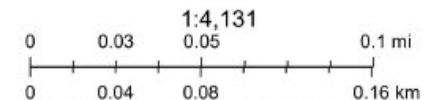
Drainage Outlet



Drainage Pipe



Newington Parcels



Sources: Esri, USGS, Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodastystrelen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Esri Community Maps Contributors, MDC, MassGIS, UConn/CTDEEP, © OpenStreetMap, Microsoft,

Town of Newington, CT GIS

Newington, CT

Attachment 3

Analytical Results



Client: Mr. Tyler Robinson
Ensafe Inc
1223 Silas Deane Hwy
Wethersfield, CT 06109

Analytical Report

CET# 24K0606

Report Date: November 26, 2024
Project: Town of Newington MS4 Sampling
Project Number: 37251 001

Connecticut Laboratory Certificate: PH 0116
Massachusetts Laboratory Certificate: M-CT903
Rhode Island Laboratory Certificate: 199



New York NELAP Accreditation: 11982
Pennsylvania Laboratory Certificate: 68-02927

CET # : 24K0606

Project: Town of Newington MS4 Sampling

Project Number: 37251 001

SAMPLE SUMMARY

The sample(s) were received at 5.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
Little Brook	24K0606-01	Water	11/21/2024 9:10	11/21/2024
Webster-Stamm	24K0606-02	Water	11/21/2024 8:30	11/21/2024
Webster-Carr	24K0606-03	Water	11/21/2024 8:45	11/21/2024
Piper-Alumni	24K0606-04	Water	11/21/2024 7:50	11/21/2024
Piper-Brookside	24K0606-05	Water	11/21/2024 7:15	11/21/2024
Piper-Mountain	24K0606-06	Water	11/21/2024 7:35	11/21/2024

CET # : 24K0606

Project: Town of Newington MS4 Sampling

Project Number: 37251 001

Analyte: Phosphorous, Total [EPA 365.4]

Analyst: DMM

Matrix: Water

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
24K0606-04	Piper-Alumni	ND	0.40	mg/L	1	BK42611	11/26/2024	11/26/2024 10:38	
24K0606-05	Piper-Brookside	0.89	0.40	mg/L	1	BK42611	11/26/2024	11/26/2024 10:39	
24K0606-06	Piper-Mountain	ND	0.40	mg/L	1	BK42611	11/26/2024	11/26/2024 10:41	

Analyte: Coliform [Colilert-18]

Analyst: REW

Matrix: Water

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
24K0606-01	Little Brook	>2419.6	1.0000	MPN/100 mL	1	BK42221	11/21/2024	11/21/2024 14:15	
24K0606-02	Webster-Stamm	>2419.6	1.0000	MPN/100 mL	1	BK42221	11/21/2024	11/21/2024 14:15	
24K0606-03	Webster-Carr	>2419.6	1.0000	MPN/100 mL	1	BK42221	11/21/2024	11/21/2024 14:15	
24K0606-04	Piper-Alumni	>2419.6	1.0000	MPN/100 mL	1	BK42221	11/21/2024	11/21/2024 14:15	
24K0606-05	Piper-Brookside	>2419.6	1.0000	MPN/100 mL	1	BK42221	11/21/2024	11/21/2024 14:15	
24K0606-06	Piper-Mountain	>2419.6	1.0000	MPN/100 mL	1	BK42221	11/21/2024	11/21/2024 14:15	

Analyte: E Coli [Colilert-18]

Analyst: REW

Matrix: Water

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
24K0606-01	Little Brook	>2419.6	1.0000	MPN/100 mL	1	BK42223	11/21/2024	11/21/2024 14:15	
24K0606-02	Webster-Stamm	344.80	1.0000	MPN/100 mL	1	BK42223	11/21/2024	11/21/2024 14:15	
24K0606-03	Webster-Carr	>2419.6	1.0000	MPN/100 mL	1	BK42223	11/21/2024	11/21/2024 14:15	
24K0606-04	Piper-Alumni	275.50	1.0000	MPN/100 mL	1	BK42223	11/21/2024	11/21/2024 14:15	
24K0606-05	Piper-Brookside	>2419.6	1.0000	MPN/100 mL	1	BK42223	11/21/2024	11/21/2024 14:15	
24K0606-06	Piper-Mountain	1203.3	1.0000	MPN/100 mL	1	BK42223	11/21/2024	11/21/2024 14:15	

CET # : 24K0606

Project: Town of Newington MS4 Sampling

Project Number: 37251 001

QUALITY CONTROL SECTION

Batch BK42611 - EPA 365.4

Analyte	Result (mg/L)	RL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (BK42611-BLK1)					Prepared: 11/26/2024 Analyzed: 11/26/2024				
Phosphorous, Total	ND	0.40							
LCS (BK42611-BS1)					Prepared: 11/26/2024 Analyzed: 11/26/2024				
Phosphorous, Total	1.10	0.40	1.017		108	80 - 120			

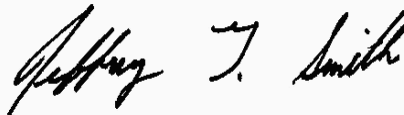
All questions related to this report should be directed to David Ditta, Timothy Fusco, or Jeffrey Smith at 203-377-9984.

Sincerely,

This technical report was reviewed by Jeffrey Smith



David Ditta
Laboratory Director



Project Manager

This report shall not be reproduced except in full, without the written approval of the laboratory

Report Comments:

Sample Result Flags:

- E- The result is estimated, above the calibration range.
- H- The surrogate recovery is above the control limits.
- L- The surrogate recovery is below the control limits.
- B- The compound was detected in the laboratory blank.
- P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
- D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
- +/- The Surrogate was diluted out.
- *C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
- *C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
- *F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
- *F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
- *I- Analyte exceeds method limits from second source standard in Initial Calibration Verification (ICV). No directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit

Reporting Limit (RL) is the limit of detection for an analyte after any adjustment made for dilution or percent moisture.

All analyses were performed in house unless a Reference Laboratory is listed.

Samples will be disposed of 30 days after the report date.



80 Lupes Drive
Stratford, CT 06615

Tel: (203) 377-9984
Fax: (203) 377-9952
email: cet1@cetlabs.com

Quality Control Definitions and Abbreviations

Internal Standard (IS)	An Analyte added to each sample or sample extract. An internal standard is used to monitor retention time, calculate relative response, and quantify analytes of interest.
Surrogate Recovery	The % recovery for non-target organic compounds that are spiked into all samples. Used to determine method performance.
Continuing Calibration Batch	An analytical standard analyzed with each set of samples to verify initial calibration of the system. Samples that are analyzed together with the same method, sequence and lot of reagents within the same time period.
ND	Not detected at or above the specified reporting limit.
RL	RL is the limit of detection for an analyte after any adjustment made for dilution or percent moisture.
Dilution	Multiplier added to detection levels (MDL) and/or sample results due to interferences and/or high concentration of target compounds.
Duplicate	Result from the duplicate analysis of a sample.
Result	Amount of analyte found in a sample.
Spike Level	Amount of analyte added to a sample
Matrix Spike Result	Amount of analyte found including amount that was spiked.
Matrix Spike Dup	Amount of analyte found in duplicate spikes including amount that was spike.
Matrix Spike % Recovery	% Recovery of spiked amount in sample.
Matrix Spike Dup % Recovery	% Recovery of spiked duplicate amount in sample.
RPD	Relative percent difference between Matrix Spike and Matrix Spike Duplicate.
Blank	Method Blank that has been taken through all steps of the analysis.
LCS % Recovery	Laboratory Control Sample percent recovery. The amount of analyte recovered from a fortified sample.
Recovery Limits	A range within which specified measurements results must fall to be compliant.
CC	Calibration Verification

Flags:

- H- Recovery is above the control limits
- L- Recovery is below the control limits
- B- Compound detected in the Blank
- P- RPD of dual column results exceeds 40%
- #- Sample result too high for accurate spike recovery.



Connecticut Laboratory Certification PH0116
Massachusetts Laboratory Certification M-CT903
Pennsylvania NELAP Accreditation 68-02927

New York NELAP Accreditation 11982
Rhode Island Certification 199



Bureau of Water Protection and Land Reuse
Remediation Division

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Complete Environmental Testing, Inc.

Client: Ensaf Inc

Project Location: Town of Newington MS4 Sampling

Project Number: 37251 001

Sample Date(s):

11/21/2024

Laboratory Sample ID(s):

24K0606-01 thru 24K0606-06

List RCP Methods Used:

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CTDEP method-specific Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1A	Were the method-specified preservation and holding time requirements met?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
1B	VPH and EPH Methods Only: Was the VPH or EPH method conducted without significant modifications (See respective RCPs)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3	Were samples received at an appropriate temperature (<6° C)? If samples were received by the laboratory on the same day of collection and were stored and transported to the laboratory on ice, cooler temperatures above 6°C are acceptable.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
4	Were all QA/QC performance criteria specified in the CT DEEP Reasonable Confidence Protocol documents achieved?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5	Were reporting limits / limits of quantitation specified or referenced on the chain-of-custody?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5a	Were these reporting limits / limits of quantitation met?	<input type="checkbox"/> Yes <input type="checkbox"/> No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7	Are project-specific matrix spikes and laboratory duplicates included in this data set for applicable RCPs?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

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

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

Authorized Signature:

Position: Laboratory Director

Printed Name: David Ditta

Date: 11/26/2024

Name of Laboratory: Complete Environmental Testing, Inc.

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

RCP Case Narrative

7- Project specific QC was not requested by the client.

QC Batch/Sequence Report

Batch	Sequence	CET ID	Sample ID	Specific Method	Matrix	Collection Date
BK42221		24K0606-01	Little Brook	Colilert-18	Water	11/21/2024
BK42221		24K0606-02	Webster-Stamm	Colilert-18	Water	11/21/2024
BK42221		24K0606-03	Webster-Carr	Colilert-18	Water	11/21/2024
BK42221		24K0606-04	Piper-Alumni	Colilert-18	Water	11/21/2024
BK42221		24K0606-05	Piper-Brookside	Colilert-18	Water	11/21/2024
BK42221		24K0606-06	Piper-Mountain	Colilert-18	Water	11/21/2024
BK42223		24K0606-01	Little Brook	Colilert-18	Water	11/21/2024
BK42223		24K0606-02	Webster-Stamm	Colilert-18	Water	11/21/2024
BK42223		24K0606-03	Webster-Carr	Colilert-18	Water	11/21/2024
BK42223		24K0606-04	Piper-Alumni	Colilert-18	Water	11/21/2024
BK42223		24K0606-05	Piper-Brookside	Colilert-18	Water	11/21/2024
BK42223		24K0606-06	Piper-Mountain	Colilert-18	Water	11/21/2024
BK42611		24K0606-04	Piper-Alumni	EPA 365.4	Water	11/21/2024
BK42611		24K0606-05	Piper-Brookside	EPA 365.4	Water	11/21/2024
BK42611		24K0606-06	Piper-Mountain	EPA 365.4	Water	11/21/2024



24K0606

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

COC No.

Page 1 of 1

Name: Town of Newington MS4 Sampling

PO No.

Project No. 37251 001

Location: Newington, CT

Sample Analysis Requested (Enter number of containers for each test)

Collected by: Tyler Robinson								(3) →	SA												
Project Contact Jeff Parillo 860-920-5896								Total No. of Containers	Total Coliform	Total Phosphorus										Extra Volume for MS/MSD	HOLD
Lab Name: CET Turnaround Time(specify): 10 Day																					
Lab ID	Sample ID	Location ID	Date	Time (Military)	Matrix Code	Sample Type	Field Filtered														
	Little Brook		11/21/2024	0910	WS	G	N	1	X												
	Webster - Stamm		11/21/2024	0830	WS	G	N	1	X												
	Webster - Carr		11/21/2024	0845	WS	G	N	1	X												
	Piper - Alumni		11/21/2024	0750	WS	G	N	2	X	X											
	Piper - Brookside		11/21/2024	0715	WS	G	N	2	X	X											
	Piper - Mountain		11/21/2024	0735	WS	G	N	2	X	X											
Field Comments: Stormwater Samples Send results to jparillo@ensafe.com, trobinson@ensafe.com								Lab Comments:				CT RCPs X		Sample Shipment and Delivery Details Number of coolers in shipment: 1							
Relinquished by (signature)				Date	Time	Received by (signature)				Date	Time	Samples Iced?(check) Yes____ No____									
1 [Signature]				11/21/24	12:35	1 [Signature]				11/21/24	12:35	Method of Shipment:									
2 [Signature]				11/21/24	14:10	2 [Signature]				11/21/24	14:10	Airbill No:									
3						3						Date Shipped:									

(1) Matrix Code: AA=Air, AQ=Air QC Matrix, CK=Caulk, GS=Soil Gas, LF=Free Product, LH=Liquid Waste, MS=Mastic, Oil=Oil, PT=Paint, SC=Cement/Concrete, SE=Sediment, SF=Filter Sandpack, SL=Sludge, SN=Miscellaneous Solid/Building Materials, SO=Soil, SQ=Soil/Solid QC Matrix, ST=Solid Waste, SW=Swab/Wipe, TA=Animal Tissue, TP=Plant Tissue, WG=Ground Water, WL=Leachate, WO=Ocean Water, WP=Drinking Water, WQ=Water QC Matrix, WS=Surface Water, SU=Sewer Water, WW=Waste Water

(2) Sample Type: AB=Ambient Blank, EB=Equipment Blank, FB=Field Blank, FD=Field Duplicate Sample, FR=Field Replicate, MB=Material Blank, N=Normal Environmental Sample, RB=Material Rinse Blank, TB=Trip Blank

(3) Preservative added: HA=Hydrochloric Acid, NI=Nitric Acid, SH=Sodium Hydroxide, SA=Sulfuric Acid, AA=Ascorbic Acid, HX=Hexane, ME=Methanol, SB=sodium bisulfate, ST=Sodium Thiosulfate, If NO preservative added leave blank