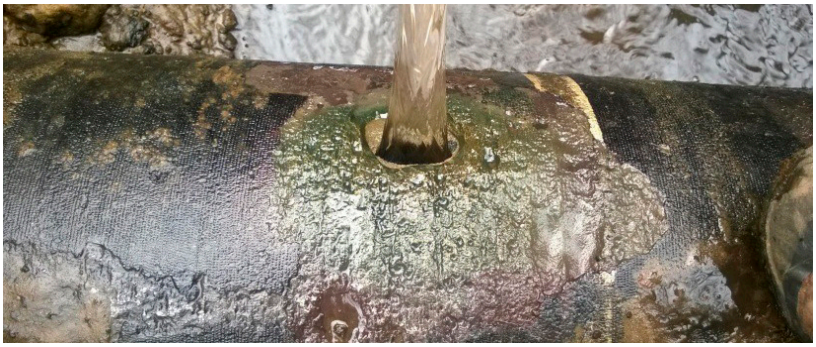
Town of Ledyard
CONNECTICUT

QUALIFICATIONS
October 2025

Lead and Copper Rules Revisions Compliance

RFQ 2026-02



Weston & Sampson℠
westonandsampson.com
712 Brook Street, Suite 103, Rocky Hill, CT 06067

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712 Brook Street, Suite 103, Rocky Hill, CT 06067
Tel: 860.513.1473

October 2, 2025

Mayor's Office
741 Colonel Ledyard Highway
Ledyard, CT 06339

Re: Request for Qualifications for Lead and Copper Rule Revisions Compliance

Dear Selection Committee:

Weston & Sampson is pleased to submit this statement of qualifications to develop and oversee a comprehensive Lead and Copper Rules Revisions (LCRR) Compliance Program. Given our team's local knowledge, decades of demonstrated experience, and full-service capabilities, we are confident that we can provide prompt and cost-efficient services to meet your needs. Highlights of our qualifications include the following:

- Extensive water engineering experience and lead and copper rule expertise: Weston & Sampson has decades of experience providing engineering services to public water systems for project development and planning through design, construction, and long-term operation and maintenance. Since the Lead and Copper Rule was established in 1991, and through its many updates, we have worked with our clients to design programs to help protect public health. We assist clients in navigating these challenges from their very first sampling plans to their lead service line inventories to comply with the most recent revisions to the rule. We are experts in this regulation, the challenges it creates, and solutions it demands. We are currently working with dozens of communities to develop their comprehensive water service line inventory, subsequent replacement plans, and general compliance with the revised and improved rules.

- Local presence & responsiveness: The multidisciplinary nature of our firm allows us to address all important project issues using in-house staff who are familiar with the unique aspects of this project. We have the required experience to assist you with your project needs. Weston & Sampson has built a reputation of completing projects in adherence to schedule and budget, as seen by successfully submitting over 30 water service line inventories for public water suppliers in multiple states by the regulatory deadline. Our project management team will remain committed to this project, ensuring consistent leadership throughout design and construction of the project. We always have sufficient personnel on staff to ensure adequate staffing during your project to provide prompt delivery of service. As the project progresses, we will continuously monitor our staff's performance to verify our compliance with schedule and cost constraints.

- Familiarity & experience with the Town of Ledyard: Weston & Sampson has developed a long-term relationship with Ledyard, going back more than 20 years when we provided engineering design and construction services for roadway improvements in 1998. Throughout the years, we continued to demonstrate to the town our success in implementing engineering projects including those for Military Highway roadway improvements, Lakeside Condominiums wastewater pumping station design and construction, and a sewer feasibility study. Most recently, Weston & Sampson has been working with the town on the LOTCIP-funded Ledyard High School multi-use pathway and sidewalk extension and the Ledyard Center sewer feasibility study.

Weston & Sampson is dedicated to working closely with you to provide practical, cost-effective solutions. We welcome the opportunity to meet with you to further discuss your needs for this project. If you have any questions regarding our submittal, please contact me directly at 978-548-6240 or McCarthyM@wseinc.com or our client contact Matthew Jermine, PE, at 860-616-6607 or Jermine.Matthew@wseinc.com.

Sincerely,
WESTON & SAMPSON ENGINEERS, INC.

Margaret McCarthy, PE | Drinking Water Infrastructure Practice Leader / Vice President

COMPANY INFORMATION

Established in 1899, Weston & Sampson has been providing our municipal clients with cost-effective, innovative solutions to their environmental and infrastructure challenges for well over a century. We offer capabilities ranging from project development, assessment, and planning through permitting, design, construction, and long-term operations and maintenance.

We are a full-service multi-disciplinary consulting firm with more than 1,000 professionals, including planners, landscape architects, engineers, scientists, and construction inspectors. Our areas of expertise include climate resilience/sustainability; stormwater design/drainage; architecture; water/wastewater utility design/treatment; hydraulic modeling; multi-use trail/pathway planning, community planning, landscape architecture; civil engineering; environmental science/permitting; bridge/roadway design; electrical / mechanical / structural / geotechnical / traffic engineering; solid waste services; and construction administration.

FIRM HISTORY / INFORMATION

Robert Spurr Weston began his consulting practice in 1899. In 1916, he was joined by George Sampson, which formed the Weston & Sampson partnership. Incorporated in Massachusetts in 1976, Weston & Sampson Engineers, Inc. (Weston & Sampson) is a privately held, employee-owned company that offers capabilities ranging from project development, assessment, and planning through permitting, design, construction, and long-term operation and maintenance.

Weston & Sampson's Connecticut branch was first established in 1998. We also currently maintain offices throughout the Northeast and along the East Coast, as depicted on the map below. In 2023, Weston & Sampson transitioned to a 100% employee-owned firm through our employee stock ownership plan.

Headquarters
Weston & Sampson
55 Walkers Brook Drive, Suite 100
Reading, MA 01867

Primary Office
Weston & Sampson
712 Brook Street, Suite 103
Rocky Hill, CT 06067

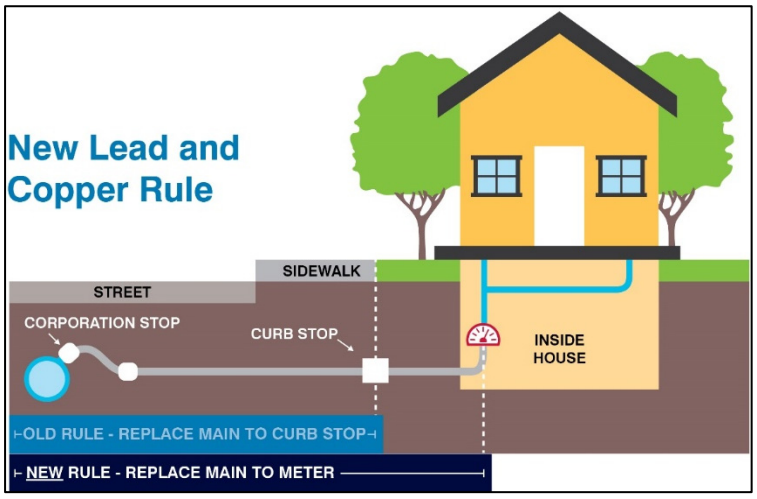
Number of Years in Business

Weston & Sampson has been in business since 1899; we have been in business for 126 years.

Number of Employees

Nationally – 1063
Assigned to this project – 14, dependent on final scope of work

Areas of Expertise



LSL INVENTORY, SAMPLING, AND REPLACEMENT PLANS

Weston & Sampson has experience with lead service line (LSL) inventory creation, sampling plan review and site selection, and creating service line replacement plans. More detail about specific LSL projects can be found in **Section 3**.

1. LSL Inventory – Weston & Sampson assisted the following state agencies with LSL inventory projects – MassDEP and VT DEC. In Massachusetts, Weston & Sampson assisted the following communities with the creation of preliminary LSL inventories: Lowell; Norton; Revere; Winchester; Blackstone; Fitchburg; Dedham-Westwood Water District; Everett; and Brookline. In New Hampshire, Weston & Sampson assisted the Towns of Exeter and Seabrook in the initial approach to creating their LSL inventories. Weston & Sampson continues to help multiple communities with further refinement of the LSL inventory, including the Town of Watervliet, New York.

2. Lead & Copper Rule (LCR) Sampling – Weston & Sampson has provided past assistance to the Town of Salem, New Hampshire, the Hampstead Area Water Company, New Hampshire, and the City of Peabody, Massachusetts, with development/updating of lead and copper sampling plans to accommodate the updated changes brought upon by the new LCRR.

3. LSL Replacement Plan – Weston & Sampson has experience in assisting PWS in New Hampshire and Massachusetts with replacement of existing lead service lines. This experience includes projects of all sizes, including coordination and replacement of single services to the identification and replacement management for hundreds of services.

WATER ENGINEERING EXPERTISE

With more than a century's worth of experience, Weston & Sampson is a provider of premiere water engineering to many communities in Connecticut and throughout the region. We have extensive experience with service inventory development, sampling plan review and site selection, and creating LSL replacement plans. We have worked with communities to prioritize replacing LSLs during capital improvements and water main replacements for decades.

Additionally, we provide comprehensive services for water infrastructure projects, including design, bidding, and construction administration services throughout the project timeline. Our expertise includes designing water system improvements, from water main and water service replacements to pump station and water treatment facility construction; drafting detailed requests for proposals and invitation to bid documents; assisting in the bidding and procurement process; and providing construction administration and oversite services.

CONSTRUCTION ADMINISTRATION AND UTILITY INSPECTION EXPERIENCE

Weston & Sampson is routinely engaged by our clients to oversee the construction and provide resident representative services on our projects. These services include monitoring construction fees, materials installed and payment requests, and schedules, as well as review of shop and production drawings, evaluation of mock-ups and construction materials, and responding to Requests for Information (RFIs) and proposed change orders from the contractor. We are accustomed to evaluating change order requests and providing recommendations to support or deny proposed cost changes.

Weston & Sampson also provides construction inspection services on municipal improvement projects, as well as CTDOT projects. Recently, our inspectors have completed multiple pavement preservation projects for the CTDOT along Interstate 95, Route 2, Route 82, and Route 11. We have fully qualified construction inspectors that are NICET and NETTCP certified and hold the required certifications for concrete and bituminous materials inspections. Our construction representative staff provide all required daily logs and construction documentation, including testing materials, review of contractor pay requests, development of punch lists, and project closeout.

Weston & Sampson regularly provides resident engineering services for water main construction and water service line replacements and also conducts hundreds of utility inspections within residential and commercial properties each year, including coordinating, entering, inspecting, and data collection on premise plumbing, house inspections for building connections to drains and sewers, backflow testing operations, and water meter replacements.

WATER SYSTEM OPERATIONS

Weston & Sampson Services (WSS) has worked with communities in New England, managing cross-connection and backflow prevention programs since 1992. WSS has also helped communities in evaluating and replacing their water meters. In addition to municipal programs, we provide services for private industrial facilities, research and development facilities, commercial properties, multi-family residential properties, academic institutions (including private and public school districts), colleges and universities, and property management companies. WSS' experience in these programs will aid in conducting visual inspections of service lines.

ASSET INVENTORY, SAMPLING & REPLACEMENT

Establishing an inventory of assets for any utility, community, or organization is the primary activity for any asset management plan. Weston & Sampson has been helping clients develop and maintain their asset management plans as a fundamental aspect of client engagements. Our strong GIS background assists this effort because GIS is a foundational technology on which to build sound asset management strategies, including LSL inventories.

Online Mobile Applications

Weston & Sampson's very own field data collection platform, iDataCollect, streamlines the field data collection process by replacing paper forms and associated workflows. Operations data collected with iDataCollect may be integrated with GIS, providing decision-makers near real-time access to the data they need in a common interface. Sample applications include internal building inspections, meter inspections, water and wastewater treatment plant operations, cross connection control, pump station inspections, and fire hydrant inspections. In addition, Weston & Sampson has created forms and collected water infrastructure data using the latest software release of ArcGIS Survey123.

Weston & Sampson is an ESRI business partner, which enables us to better support our clients and to maximize their use of GIS software and options using our knowledge and expertise of the technology.

Database Development & Administration

Weston & Sampson has a talented group of engineers, GIS analysts, and IT professionals who work together to make sure project data is collected, stored, used, and delivered in the most efficient manner. We have developed database tools to manage all phases of an infrastructure evaluation program, including mapping, capital planning, operation and maintenance, and asset rehabilitation and replacement.

PUBLIC OUTREACH

Weston & Sampson brings decades of experience in public sector-focused community engagement, working with communities to report findings, gauge opinion, and build consensus. We prioritize clear communication, supported by a dedicated team of marketing, communications, and graphics professionals. Our presentations include legible plans, photorealistic renderings, 3D models, estimates, and other key materials to ensure that complex technical and regulatory information is understandable for all audiences.

Our commitment to meaningful engagement drives us to use a range of formats and tools designed to educate, enroll, and entertain. We value public presentations that foster an affinity for both the

presenters and the project, promoting collective buy-in and facilitating project progress. Additionally, we employ multi-pronged, multimedia strategies that incorporate various platforms to reach diverse community members, including public officials, boards, committees, and residents.

In Person

- Site walks and hands-on charrettes
- Multi-day workshops
- Consensus-building strategy sessions
- Community meeting presentations

In Print

- Data visualization and storytelling
- Surveys (online, mailed, on-site)

Online

- Project websites and social media
- Virtual engagement platforms
- Automated response systems (real-time feedback)
- Video and local access television

For example, we produced this YouTube video, starring our Project Manager Stephanie Collins, on How to Identify a Lead Service for the Dedham-Westwood Water District: https://youtu.be/s84k056nC4I?si=1e1Euh6yEzCpXtai

To strengthen community ties and support long-term resilience, we prioritize empowering stakeholders, residents, and community organizations early in the process with:

- **Intentional event composition:** Ensuring representation reflects community demographics, neighborhoods, and knowledge
- **Overcoming barriers to participation:** Working respectfully with city/town representatives to address resource limitations and other constraints
- **Community-context understanding:** Using interactive techniques to gather stories, ideas, and feedback from a wide range of stakeholders
- **Building on local knowledge:** Avoiding "planning fatigue" by leveraging existing efforts and local expertise, and encouraging ongoing community involvement

We strive to keep communities at the center of project planning, establishing an ongoing public dialogue to understand their needs and preferences. Our planners and landscape architects develop concept plans tailored to community priorities, typically accompanied by budgets, phasing, funding, and implementation strategies. This comprehensive approach also integrates social equity, climate resilience, and low-impact development (LID) principles, transforming these goals into actionable project elements.

EXPERIENCE DWSRF/CWF PROGRAM AND CTDEEP FUNDING

Weston & Sampson has extensive experience working with drinking water projects funded through DWSRF and CTDPH. We have completed dozens of DWSRF applications on behalf of public water utilities and towns across the state. Our relationships with CTDPH staff help streamline the procedural work and move quickly from design through bidding, into construction, and finally to startup and commissioning. By communicating frequently and being familiar with the recordkeeping and reporting processes required by the CT DPH, we are able to deliver projects on time and on budget.

In addition to the recent project in Norwich, we assisted Mohegan Tribal Utility Authority in quickly providing designs and cost estimates for work on the Crow Hill Tank to potentially apply for funds for tribal groups to upgrade water and wastewater infrastructure that was appropriated as part of the COVID stimulus in 2020. Our project managers and engineers have also overseen work with Southington Water Department (SWD) on two major DWSRF projects for new well sources.

Our staff has worked with many communities in several capacities to maximize the money available for each project under various programs, including the State Revolving Loan Fund (SRF). We are accustomed to specialized reporting requirements as well as the limitations of funding inherent with state and federally funded projects, and we apply our experience in this area to ensure a smooth design and construction process on our clients' projects.

EXPERIENCE

Recently, Weston & Sampson has assisted dozens of water systems throughout New England with their service line inventories and lead service line replacement plans. We have provided the following examples of previous, related work in lead service line inventory, replacement, asset management, and large projects with state entities to showcase how, by working with Weston & Sampson, the Town of Ledyard will realize similar project success.

At the end of this section is a matrix of recent projects Weston & Sampson has worked on, and we have highlighted specific projects in the table below.

Project Title / Location / Contact	Project Description
Water Service Line Inventory Dedham-Westwood Water District, MA Blake Lukis Executive Director 781-461-2776 blukis@dwwd.org	Weston & Sampson was contracted by the Dedham-Westwood Water District (District) to develop a comprehensive service line inventory for its large community water system, funded through the MassDEP Lead Service Line (LSL) Grant Program. The inventory identified both known and unknown service line materials on the system-owned and customer-owned sides, supporting state and national efforts to eliminate lead service lines. Key project components included: • **Service Line Inventory Development**: Created an inventory aligned with MassDEP requirements, documenting material types, identification sources, and unknown lines. Developed LSL replacement plans and updated sampling plans per new LCRR tier designations. • **Data Collection & Validation**: Collaborated with water system personnel to gather institutional knowledge and review system documentation. Built an interactive ArcGIS map and applied predictive modeling to fill data gaps. • **Visual Inspection & Public Outreach**: Collected customer-side data through surveys, self-reporting, and visual inspections. Produced an instructional video to help residents identify their water service lines. Used online forms and coordinated outreach efforts, including letters and surveys. Published a public-facing GIS map on the District's website to help residents identify their service line materials. • **Award-Winning Public Engagement:** The District won the 2025 NEWWA Distinguished Drinking Water Public Involvement Award; its public outreach campaign reduced 11,000 public side unknown water service line materials to under 700.
Water Service Inventory Support to #10 City of Medford, MA Owen Wartella City Engineer 781-745-5642 owartella@medford-ma.gov	Weston & Sampson contracted with the City of Medford to create the city's water service line inventory for their large community water system. The project received funding through the MassDEP Lead Service Grant Program. The purpose of the inventory is to identify all known and unknown service line material on both the system-owned side and the customer-owned side. After the inventory was submitted to MassDEP, Weston & Sampson began work with the city to set up and implement a statistical analysis platform to predict locations of lead service lines. Weston & Sampson's scope also included the design, bidding, construction administration, and resident representative services of a test pitting and LSL replacement project. Data obtained during this construction project will be inputted into the statistical model to better inform future testing pitting and LSL replacement projects.

Project Title / Location / Contact	Project Description
Small Water Systems Lead Service Line Inventory Vermont Department of Environmental Conservation, VT Bruce King, PE Infrastructure Sustainability Section Supervisor 802-22-4840 bruce.king@vermont.gov	The Vermont Department of Environmental Conservation (VTDEC) recently contracted Weston & Sampson to create the lead service line inventories for 35 small water systems across the state of Vermont. Weston & Sampson created an address list of all properties connected to each water system and then conducted thorough review of state and water system records. Weston & Sampson performed customer outreach through mailers, surveys, and field work with certain water systems. Inventories for all 35 systems were successfully submitted to VTDEC for review as part of the Lead and Copper Rule Revisions (LCRR) compliance date in October 2024. Subsequent work included working with water systems to continue filling in unknown information obtained after the initial submission to VTDEC.
Water Service Line Inventory Manchester Water Works City of Manchester, NH Mark Bourque Deputy Director – Water Distribution Manchester Water Works 603-792-2806 mbourque@manchesternh.gov	Weston & Sampson contracted with Manchester Water Works to assist with the development of a comprehensive service line inventory for its large community water system, funded through the New Hampshire Department of Environmental Services (NHDES) Large System LSL Grant Program. Key project components included: • **Service Line Inventory Development**: Created an inventory aligned with NHDES requirements, documenting material types, identification sources, and unknown lines for approximately 35,000 service lines. Developed LSL replacement plan and assisted with updating the sampling plans per new LCRR tier designations. • **Data Collection & Validation**: Collaborated with water system personnel to gather institutional knowledge and review system documentation such as tie-cards, water main construction plans, assessor data, meter replacement reports, customer self-reporting, and other sources of data. • **Self-Reporting Program**: Assisted with customer self-reporting program to identify private-side services. The program utilized a QR program, mailings to targeted areas, bill-stuffers, social media announcements, and other methods of exposure to increase participation. The program has successfully identified over 9,000 private-side services thus far. • **Future Funding:** Assisted with securing additional $300,000 in additional funding through the NH State-Revolving-Loan Fund (SRF) program for MWW to continue investigation of unknowns through various methods.

Water Service Line Inventory and Replacement

Town / City / PWS Name	Inventory Creation / Updates / On-Call Support	GIS Mapping	WSL Repl Plan	Public Education & Outreach	Crowd Sourcing / Building Inspections	Water Quality Sampling / Testing	WSL Repl / Test Pitting Construction	SRF Loan and/or Grant Funding	Statistical / Predictive Modeling	Total # Service Connections
Abington/Rockland Joint Water Works, MA	■									11,607
AD Makepeace, MA	■									753
Belmont, MA	■	■	■					■		7,700
Blackstone, MA	■	■	■		■	■	■	■		2,800
Brookline, MA	■	■	■					■		10,800
Chatham, MA	■	■	■					■		6,680
Dedham-Westwood Water District, MA	■	■	■	■	■		■	■		14,300
Exeter, NH	■	■		■				■		4,000
Fitchburg, MA	■	■	■					■		11,250
Hampstead Area WC (HAWC), NH	■	■		■				■		3,700
Hudson, NH	■	■		■				■		6,722
Keene, NH	■	■	■	■		■		■		6,150
Lincoln, NH	■	■		■			■	■		1,800
Lowell, MA	■	■	■	■	■		■	■		26,000
MADEP SMALL COM & NTNC SYSTEMS	■	■	■							<200
Manchester Water Works, NH	■	■	■	■	■			■		160,000
Medford, MA	■	■	■				■		■	15,000
North Andover, MA	■									7,689
Northborough, MA	■	■						■		4,250
Norton, MA	■									5,842
Peabody, MA	■	■	■	■				■		13,800
Quincy, MA		■	■				■			23,500
Reading, MA	■	■	■				■			7,763
Rutland, MA	■									1,722
Salem, NH	■	■		■				■		7,427
Seabrook, NH	■	■		■			■	■		4,000
VTDEC Small Water Systems	■		■	■	■			■		2,695
Watertown, MA	■	■	■							10,000
Wellesley, MA	■	■	■					■		8,182
Winchester, MA	■	■	■					■		7,142
Woburn, MA	■	■	■					■		10,000

Bold Text - State-wide Assistance type project

REFERENCES

To assist in your evaluation of Weston & Sampson, we offer contact information for some of our current and long-standing clients for whom we have provided similar services. These references can attest to our long-standing relationships, work history, and responsiveness. We recognize the importance of providing responsive service and commit our resources to ensure that your questions are responded to quickly, and that the deadlines for your assignments are met. Furthermore, we are confident that our references will indicate that we have been responsive and have met or exceeded their expectations.

We invite you to contact these individuals to discuss our firm's overall capabilities and past performance. These contacts can attest to Weston & Sampson's track record, qualified, and responsive technical professionals, and commitment to quality. We have provided specific information regarding the relevant projects performed for these clients below for projects not also listed in **Section 3, *Experience***.

Dedham-Westwood Water District, MA
Blake Lukis
Executive Director
781-461-2776
blukis@dwwd.org
Project: Project description can be found in Section 3.

City of Medford, MA
Owen Wartella
City Engineer
781-745-5642
owartella@medford-ma.gov
Project: Project description can be found in Section 3.

First Taxing District Water Department, Norwalk, CT
Eleanor Militana
General Manager
203-247-2225
emilitana@firstdistrictwater.org
Project: Design and construction engineering services for upgrades to the chemical feed system at the John E. Riordan Water Treatment Plant

Vermont Department of Environmental Conservation, VT
Bruce King
Infrastructure Sustainability Section Supervisor
802-622-4840
Bruce.king@vermont.gov
Project: Project description can be found in Section 3.

City of Lowell, MA
Timothy Brinkman
Superintendent of Water
978-674-4240
TBrinkman@lowellma.gov
Project: Prepared the city's water service line inventory in compliance with LCRR/LCRI, utilizing MassDEP WSL inventory grant program and city capital funds. Worked with the city to create a three-year LCRR/LCRI compliance program, which includes additional inventory refinement, creation of standard operating procedures for tracking WSL materials encountered in the field, design, bid, and construction administration of a LSL replacement plan, updates to sampling plan, and public engagement campaign.

PROJECT TEAM / ORGANIZATION

Working with a team that is collaborative, responsive, and experienced is the key to success for any project and assignment. As such, we offer the Town of Ledyard our project team of skilled engineers and scientists who provide high-quality services, demonstrated over the course of numerous projects for municipal clients throughout Connecticut and the region.

Below, we have included our organizational chart that outlines the roles and responsibilities of our team members. **We have also included resumes for key individuals** at the end of this section and biographies for key staff can be found on the next page. In addition to our proposed team, Weston & Sampson has more than 1,000 qualified engineering, design, and environmental/permitting professionals that we can draw upon to support work for your project.

PRINCIPAL-IN-CHARGE

Margaret McCarthy, PE, has more than 20 years of experience in the evaluation, planning, and design of numerous water system improvement projects and will provide additional review and oversight assistance. Margaret has served as principal-in-charge for LSL inventory and replacement projects in Brookline, Dedham-Westwood Water District, Lowell, Wellesley, Massachusetts, and others. Margaret has extensive experience with water asset/data management including overseeing the implementation of state-of-the-art meter reading systems to help utilities reduce water losses and promote conservation.

PROJECT MANAGER

Stephanie Collins will serve as project manager, as well as a lead & copper rule subject matter expert. is a senior project engineer in Weston & Sampson's water program, providing both engineering design and construction services, as well as on-site construction administration and resident inspection services. Stephanie managed our LSLRP LSL inventory work for MassDEP and helped develop the LS inventories for Dedham-Westwood Water District and Lowell, Massachusetts. She is a senior project engineer in Weston & Sampson's water program, providing both engineering design and construction services, as well as on-site construction administration and resident inspection services. She has experience in design, bidding, construction administration and resident inspection services for several water, sewer and drainage utility projects.

CLIENT CONTACT

Matthew Jermine, PE, will serve as Weston & Sampson's client contact. He is a team leader in Weston & Sampson's Wastewater department and has over 20 years of experience. He employs many different investigative strategies to thoroughly organize available project information and uncover feasible alternatives to challenging problems. Matthew has a broad understanding of wastewater management techniques with his extensive experience as a systems' planner, evaluator, and designer.

TECHNICAL REVIEW

Michael Warner, PE, our lead & copper rule subject matter expert, has nearly 20 years of experience working in the water discipline at Weston & Sampson. Mike is currently leading or recently led multiple lead service line inventory projects, including Reading, Dedham-Westwood Water District, Peabody, and Chatham, Massachusetts. Mike also has extensive experience in water design, construction, and asset management.

Greg Brovelli is a master plumber and Senior Water Technical Specialist with more than 12 years of expertise in mass meter replacement projects and deployment of automated meter reading and automated meter infrastructure solutions. He has developed and led training programs for water meter sizing, accuracy testing, installation, and repair and has directly overseen the installation of more than 150,000 water meters and AMR/AMI radio installations. Greg has recently expanded that knowledge to aid several clients with their water service line inventories. He has worked with clients directly on project approach development, funding source applications, inventory completion, review of asset data within GIS, and overall project management.

CONSTRUCTION MANAGER

Kevin Fahey, NICET IV, is a **Chief Certified Construction Inspector** and has more than 30 years' experience as both an inspector and construction coordinator serving private and municipal clients, as well as CTDOT. He has extensive experience in infrastructure and construction, including highway and bridge reconstruction, safety enhancements, emergency and routine building renovations, office building demolition, and the construction and oversight of a solar-powered home. He holds NICET Level IV certification in highway construction and NICET Level I certification in bridge safety. He is also a certified Traffic Control Supervisor through the American Traffic Safety Services Association.

STEPHANIE COLLINS

BACKGROUND

2024-Present
Senior Project Engineer
Weston & Sampson

2021-2024
Project Engineer
Weston & Sampson

2019-2021
Engineer III
Weston & Sampson

2018-2019
Engineer I
Weston & Sampson

2017-2018
Staff Engineer
Tighe & Bond

2015-2017
Engineering Intern
City of Woburn, MA

2015
Field Intern
Town of Lexington, MA

EDUCATION

2019
Master of Engineering
Civil Engineering
University of Massachusetts, Lowell

2016
Bachelor of Science
Civil Engineering
University of Massachusetts, Lowell

PRESENTATIONS

2017
Corey, John and Collins, Stephanie, "Woburn Engineering Department's Efforts to Meet MS4 Permit Requirements," New England Water Environment Association, 2017 Annual Conference & Exhibit, Boston, MA, January 24, 2017

2016
Corey, John and Collins, Stephanie. "Meet Your MS4 Requirements Using College Interns and the

Stephanie is a senior project engineer in Weston & Sampson's water program, providing both engineering design and construction services, as well as on-site construction administration and resident inspection services. She has experience in design, bidding, construction administration and resident inspection services for several water, sewer and drainage utility projects. Her project work includes evaluation and design of utility replacement and rehabilitation projects, roadway infrastructure improvements and water meter installation and/or replacement programs.

SPECIFIC PROJECT EXPERIENCE

Lead Service Line Inventory Development, Dedham-Westwood Water District (DWWD), Massachusetts. Engineer for development of an EPA Lead and Copper Rule Revisions (LCRR) compliant Lead Service Line Inventory. Assisted in both public and private side materials research and review, developed data base and created public education and outreach tools and materials.

Brookfield Road and Beacon Street Infrastructure, Dedham-Westwood Water District (DWWD), Massachusetts. Designer for water main replacement project of 3,100 feet of 8-inch water main. Project involved coordination around buried gas transmission pipeline and multiple culvert crossings. Produced plans and specifications and developed probable construction cost.

MassDEP Small System Technical Assistance Program. Project manager overseeing the development of a Service Line Inventory (SLI) and Lead Service Line Replacement Plan (LSLRP) for more than 20 Small Community Public Water Suppliers (PWS). Project scope includes monthly reporting to MassDEP and development of a draft Service Line Inventory and Lead Service Line Replacement Plan that complies with EPA's Lead and Copper Rule Revision requirements for each PWS in the program.

Essex Street & Highland Street Infrastructure, Chelsea, Massachusetts. Engineer for design and resident engineer for comprehensive infrastructure improvements in 4,500 feet of Essex Street and Highland Street. These streets required careful considerations in design, tactical administration in construction, and coordination with the contractor to work around buried water and gas transmission pipelines that occupy the street, in addition to dense local utility infrastructure. The project scope included construction of new water, sewer and drain main, cured-in-place pipe lining, full depth roadway reconstruction and cement concrete sidewalk replacement in Essex and Highland Street.

Broadway Water & Sewer Improvements, Chelsea, Massachusetts. Resident engineer for construction services for this project in Broadway. Project work included water and sewer main replacement, construction zone safety and traffic management, and hazardous materials management. Work also included coordination with contractor to ensure current water and sewer main work would not interfere with an upcoming drainage and roadway reconstruction project to commence the following construction season.

KEVIN FAHEY, NICET IV

BACKGROUND

2020-Present
Chief Certified Construction Inspector
Weston & Sampson

2018-2020
Senior Chief Certified Construction Inspector
Weston & Sampson

2007-2018
Chief Certified Construction Inspector
Weston & Sampson

2007
Inspector
GM2 Associates, Inc.

2005-2007
Self-employed
Licensed Contractor

2003-2005
Inspector
HNTB Corporation

1999-2003
Superintendent
Aspinet Construction

1996-1997
Foreman
Coastal Designs

1993-1998
Journeyman/Foreman
Paul Meyer Painting & Restoration

EDUCATION

1993
Bachelor of Arts, English
Franklin Pierce University

PROFESSIONAL CERTIFICATIONS & COMPETENCIES

NICET Level IV

Certified Engineering Inspector
Highway Construction

NICET Level I Certified
Certified Inspector
Bridge Safety

NETTCP Certified
Hot Mix Asphalt, Soils and

Kevin has more than 30 years of experience in the construction industry and serves as resident representative. His background includes reconstruction and safety improvements to highways and bridges, construction and supervision of a solar home, emergency and routine building renovations, and office building demolition. In addition, Kevin holds NICET Level IV certification as an engineering technician in highway construction, NICET Level I certification as an engineering technician in bridge safety, and NETCCP certification for hot mix asphalt, soils and aggregate, and concrete inspection. Kevin is also a certified Traffic Control Supervisor through the American Traffic Safety Services Association.

SPECIFIC PROJECT EXPERIENCE

Pavement Preservation on CT Route 11 (State Project 028-201), Colchester and Salem, Connecticut. Chief Inspector for the milling and resurfacing of 15 miles of highway for the CTDOT including bridge repairs and new catch basin tops.

State Project No. 63-618 - Traffic Control Signal and Intersection Improvements, Hartford, Connecticut. Sr. Chief Inspector / Construction Coordinator for inspection of construction for improvements to nine intersections in various locations within the city. Responsible for daily inspections of construction activities, compliance with material testing, processing change orders and other administrative documents. Kevin has presided over monthly progress meetings and engaged the contractor in periodic negotiation meetings, while providing coordination with the city engineering department, construction coordinator and the CTDOT District office personnel. Kevin also supervises subordinate project inspection staff and ensures staff has access to any required resources to perform their duties.

State Project No. 63-714 – Weston St., Jennings Rd. and Boce Barlow Way Traffic Control Signals and Intersection Improvements, Hartford, Connecticut. Construction Coordinator for inspection of construction for Traffic signal and Intersection Improvements. Responsible for supervising the project Chief Inspector with daily inspections of construction activities, compliance with material testing, processing change orders and other administrative documents. Kevin assisted the Chief Inspector with contract interpretations and resolution of RFI's and clarifications. Kevin provided coordination with the city engineering department, project manager and the CTDOT District office personnel. Kevin also ensures staff has access to any required resources to perform their duties.

State Project 111-124, Air Line North State Park Trail Pedestrian Trail Crossings, Pomfret, Connecticut. Served as Chief Inspector and Resident Engineer for the construction of two new pre-fabricated steel pedestrian bridges and three pre-cast concrete arch pedestrian tunnels at 5 separate sites between the Towns of Pomfret and Putnam, CT along the existing trail. The project was administered in cooperation with the Towns, CTDEEP and CTDOT as well as coordination with the utility companies Eversource and Frontier. The work inspected included ground reinforcement of the soil foundations, installation of GRS-IBS Abutments and Wingwalls, reinforced structural concrete, erection of the superstructures, assembly of the three concrete arches, pervious structural backfill installation, roadway reconstruction and safety improvements at each site.

KEVIN FAHEY, NICET IV

Aggregate, and Concrete Inspector

NETTCP Certified Concrete Technician

NETTCP Certified Quality Assurance Technician

ACI-Certified Concrete Field Testing Technician

ATSSA Traffic Control Supervisor and Traffic Control Technician

Certified for Safety and Gauge Operation for Nuclear/ Moisture Density Equipment

Inland Wetland Commissioner's Training Program (2005)

OSHA 4 Hour Lead Awareness Training

OSHA 10 Hour Safety Certification

OSHA 40 Hour HAZWOPR Certification

SiteManager DWR/Diary/Estimates/CO's/ Reporting

Qualified Compliance Inspector of Stormwater - CT

State Project No. 155-168; Park Road and State Route 501 Capacity, Safety and Operational Improvements; West Hartford, Connecticut. Chief inspector for this project involving the relocation of the I-84 Exit 43 off-ramp, so that it is adjacent to the existing on-ramp, and provided for safety, capacity and operational improvements. This project also includes three new traffic signals, intersection improvements, ADA accessible sidewalk ramps with pedestrian push buttons, highway illumination, the development of the new Town Gateway area and the reforestation of the old off ramp. In addition to thousands of feet of subsurface drainage, electrical and fiber-optic network cable, the entire site is being restored with over 1,000 plantings and acres of turf establishment.

State Project 94-239; Montauk Avenue Roadway Reconstruction, New London, Connecticut. Chief inspector and office engineer for the reconstruction of Montauk Avenue, Phase I. Work involved the full-depth reconstruction of 1,800 feet of Montauk Avenue from Bank Street to Lawrence and Memorial Hospital, including intersection improvements at multiple cross streets. Additionally, the project included utility relocations, new ADA ramps, sidewalk, curbing, striping, signage, dedicated bike lane, and drainage modifications.

State Project 82-296; Westlake Drive Bridge Improvements, Middletown, Connecticut. Chief inspector and office engineer on a bridge replacement for Westlake Drive over Miner Brook. Work included the removal of triple corrugated metal pipes, and replacement with twin pre-cast concrete box culverts. Additional work included relocation a 12-inch water main over the new structure, and new sidewalk, guiderail, fencing, curbing, signage, and striping.

Replacement of the New City Road Bridge over New City Brook, State Project 134-139, Stafford, Connecticut. Chief inspector for the installation of a 110-foot section of 16.8-foot x 8.3-foot curved aluminum box culvert, including cast-in-place reinforced concrete inlet and outlet headwalls and 465 feet of road reconstruction. Provided daily inspection of all construction activities and maintained all construction records in accordance with the policies and procedures of the CTDOT Construction Manual. Kept records using the SiteManager Software system. Coordinated field activities with CTDOT staff from the District 2 office in Norwich.

Reconstruction of Avery Street, State Project 132-131, South Windsor, Connecticut. Chief inspector and office engineer for the reconstruction of 2,300 feet of Avery Street, as well as the realignment of the Avery/Beelzebub/Woodland intersection, to improve vertical and geometric sightlines. Work also included the complete replacement of the twin corrugated metal pipe culvert for Avery Brook with 65-inch and 73-inch arch reinforced concrete pipe culverts and headwalls, as well as new ADA ramps, sidewalk, curbing, striping, signage, and drainage installation.

Kelly Road Reconstruction, State Project 132-127, South Windsor, Connecticut. Chief inspector for the full-depth pavement reconstruction, drainage installations, sidewalk and driveway apron replacement and maintenance and protection of traffic tasks. Provided daily inspection of construction, prepared daily inspection reports and quantity calculations, prepared MAT100 material testing requests and construction orders, and maintained project records using the Manual 4 Book system.

MICHAEL WARNER, PE

BACKGROUND

2024-Present
Senior Team Leader | Associate
Weston & Sampson

2020-2024
Team Leader
Weston & Sampson

2018-2020
Senior Project Manager
Weston & Sampson

2015-2018
Project Manager
Weston & Sampson

2010-2015
Project Engineer
Weston & Sampson

2005-2010
Engineer
Weston & Sampson

2003-2004
Engineering Assistant
Town of Milton

EDUCATION

2004
Bachelor of Science
Civil Engineering
University of New Hampshire

PROFESSIONAL CERTIFICATIONS

Professional Engineer:
Massachusetts No. 48469
Rhode Island No.12376

PROFESSIONAL SOCIETIES

American Water Works Association

New England Water Works Association

HONORS

Tau Beta Pi Engineering Honor Society

PRESENTATIONS & PUBLICATIONS

Annie Wheeler, Michael Warner, and Cindy Lusk, "Hopkinton, MA, Potable Water Storage Tank

Mike is a senior team leader in Weston & Sampson's Water division, experienced in the evaluation, design, and construction of water systems. He has designed numerous water main installation/replacement projects and is an expert in related areas, such as hydraulic analysis, permitting, construction administration, geographic information systems, and capital improvement and bidding assistance.

SPECIFIC PROJECT EXPERIENCE

Water System Evaluations and Capital Improvements, Dedham-Westwood Water District, Massachusetts. Project manager for water system evaluations and capital improvements plan for the Dedham-Westwood Water District. Study included demand projections, hydraulic analysis, evaluation of existing facilities, identification of potential future water supplies, and hydrant flow testing for hydraulic model calibration. Study also included a complete collection and assembly of information on the distribution system, including pipe size, age, and material. Deliverables included recommended future improvements based on collected data testing and analysis, and development of a 20-year phased construction program.

Water System Capital Improvement Plan Update, Brookline, Massachusetts. Distribution engineer for an update to the town's water system capital improvement plan. Project scope of work included a GIS update, evaluation of potential water infrastructure failures and options for improvement, update of the Uni-directional Flushing (UDF) program, and development of a five-year CIP with cost estimates.

Hydraulic Analysis and Water System Master Plan, Chatham, Massachusetts. Distribution engineer for a water system evaluation to develop a hydraulic model of the distribution system from the town's water system GIS and to use the model to identify transmission and distribution system capital requirements. Study also included water supply and water quality impacts.

Water System Evaluation and Capital Improvement Plan, Milton, Massachusetts. Engineer for water system evaluation and capital improvement plan for the community of Milton. Studies included demand projections, hydraulic analysis, evaluation of existing facilities, identification of potential future water supplies, and C-value and hydrant flow testing for hydraulic model calibration.

Water Distribution GIS Development and Update, Milton, Massachusetts. Engineer for the development and update of water distribution GIS for the Town of Milton. Provided technical review of GIS data and provided the engineering link between GIS technicians and water modeling engineers.

Water Distribution GIS Development and Update, Belmont, Massachusetts. Engineer for the development and annual update of water distribution GIS for the community of Belmont. Work includes coordinating annual updates to water GIS based on distribution system improvements and linking of updated water service cards and water record drawings.

Project,", Journal of The New England Water Works Association, March 2020

PRESENTATIONS & PUBLICATIONS, CONT.

"Utilizing a Water GIS to Help Manage a Water Distribution System" presented at NEWWA Spring Conference, Worcester, Massachusetts, April 2015

On-Call Emergency Response for Horizontal Utilities, Plymouth, Massachusetts. Team/technical lead, providing management services for the preparation of specifications and construction details for use in contract documents for on-call emergency repairs of water, sewer, and drain utilities.

Annual Water Main Replacement Projects, Belmont, Massachusetts. Design engineer for annual water main replacement projects, which entailed replacement of more than 13 miles of 8- and 12-inch water main. Used pipe bursting instead of traditional open cut trenching installation, and worked within Belmont Center and other highly traveled business districts. Prepared applications to access land adjacent to and/or owned by the MBTA as well as applications for funding under the MWRA Local Pipeline Assistance Program and the Local Water System Assistance Program. Also prepared MWRA 8(m) Water Works Permit applications.

Water Main Replacement Projects, Dedham-Westwood Water District, Dedham, Massachusetts. Design engineer for several water main replacement projects for the Dedham-Westwood Water District, including replacement of over 28,000 linear feet of 8-, 12-, and 16-inch water main. Work involved preparation of design plans; specifications; MassDOT, DCR, and MWRA 8(m) permit applications; preparation and presentation of NOIs to local conservation commissions; and fire hydrant flow testing. For one project, prepared design for the installation of approximately 2,000 linear feet of water main, which connected to a new premanufactured booster pump station, to create a new high service distribution system.

Water Main Construction, and Installation, Dedham-Westwood Water District. Resident engineer for portions of the construction of approximately 7,500 linear feet of 12-inch and 16-inch water main as a part of the Westwood Station development project. Performed work for the District, the eventual owner of the water mains installed. Construction work included the installation of water main for up to four different water main service systems at one time.

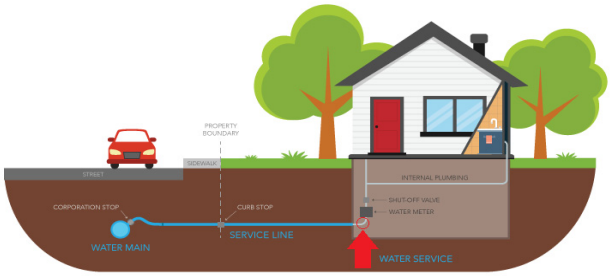
Annual Water Main Replacements, Quincy, Massachusetts. Design engineer for annual water main replacement projects for the city, including replacement of over 21,000 linear feet of 8-, 12, and 16-inch water main. Work involved preparation of MassDOT and DCR permits, preparation and presentation of NOIs to local conservation commissions, fire hydrant flow testing, preparation of MWRA LPAP applications, preparation of contract drawings and specifications, and preparation of MWRA 8(m) water works permit applications.

Water Main and Roadway Improvements, Needham, Massachusetts. Engineer for design of approximately 2,400 linear feet of 8- and 12-inch water main replacements and roadway improvements in Needham.

Water Meter and Advanced Metering Infrastructure Implementation Program, Lexington, Massachusetts. Project manager/team leader for the implementation and installation of over 9,500 water meters and endpoints, over 5,000 endpoint retrofits, and meter reading and billing software coordination for the Department of Public Works. Prepared bid documents for installation services to be completed over an 18-month period. Developed procedures and processes for meter and module installations and retrofits and troubleshooted performance and installation issues.

PROJECT APPROACH

Project Statement & Narrative



The Town of Ledyard (Town) is seeking qualifications from experienced firms to develop and oversee a comprehensive Lead and Copper Rule Revisions (LCRR) / Lead and Copper Rule Improvements (LCRI) compliance program. The program seeks to continue identifying unknown service line materials, validate compliance with LCRR requirements, develop a LSL replacement strategy and management program, prepare and maintain a public education and outreach plan, and provide additional LCRR/LCRI support services.

As water engineers and municipal consultants, we have a proven track record of delivering effective drinking water distribution system solutions for our clients. Organized into three divisions (engineering, operator, and construction services), Weston & Sampson is uniquely structured to execute this project.

We have assisted communities in Massachusetts, New Hampshire, Vermont, and New York with development of their service line inventories and replacement plans. With years of experience, a deep understanding of water distribution assets, and proven record with LSLR requirements, we are well-equipped to deliver complete and compliant service line inventories.

The following is our approach to delivering the scope of work outlined in the RFQ. This approach is based upon our experience with other LCRR/LCRI projects and the Town and includes issues to consider when developing a plan to inventory, investigate, and replace lead services, including public education and outreach planning, and LCRR/LCRI support services.

Scope of Services

TASK 1 – WATER SERVICE LINE INVENTORY

Weston & Samson will review existing data provided by the Town, including the previously developed inventory, tie cards, assessors' database, and water department records. During this process, we will provide comments on the validity of the data and the water service line (WSL) record system, as well as provide recommendations to augment the data and/or identify areas that are deficient. Overlaying the WSL inventory data on top of the distribution system network using geographic information system (GIS) software exposes gaps in data locations and research can then be targeted to find ancillary supporting materials. Additional resources may come from building permits, record drawings from capital improvements, meter replacement programs, existing GIS layers, and other such resources. This helps to establish a basis for the inventory from which continued investigation may proceed.

Weston & Sampson will provide guidance and technical support and perform the needed work to update the Town's WSL inventory in accordance with resources and methods identified in the LCRR and the EPA "Guidance for Developing and Maintaining a Service Line Inventory", August 2022 and Connecticut State Department of Public Health's (CTDPH) LCRR material Inventory template.

We have found compilation and presentation of the assembled data using GIS to be beneficial to utilities. GIS industry leader Esri has developed a standard suite of tools that includes a host of out-of-the-box solutions designed to make data collection, manipulation, editing and reporting simple and integrated into an organization's existing workflows. Esri's solution based in ArcGIS online makes it instantly scalable across an organization's operations to include mobile field work, office staff, and showcase materials for public consumption. This solution includes multiple web-based maps for the rendering of service information internally and externally to the public. The RFQ notes Groton Utilities operates and maintains the Town's water system. Reviewing the links to Groton's Utilities LSL

Inventory Project and LSL Inventory Data on the Town's Water Pollution Control Authority's webpage, it appears Groton Utilities is already utilizing the Esri platform. Therefore, we will work with the Town and Groton Utilities to further update and develop the service line inventory and increase the capabilities of the software to better serve the Town and Groton Utilities.

For other WSL projects, we've found that additional information (like installation year) can assist with determining the material (for example, if a service is installed after the lead ban, established in 1986, we can assume the service material on either side is not lead). It would be useful to record this information, as available, to help with secondary validation efforts later in the project.

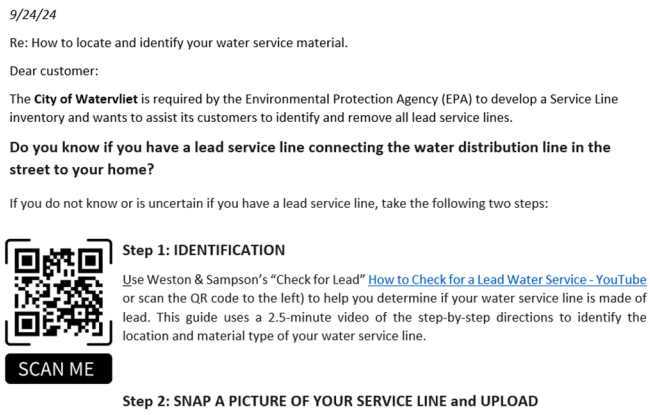
Additionally, reviewing the Town's historical water regulations and other records to determine when, and if, standardized on a non-lead pipe material for water services will enable us to more efficiently develop the WSL inventory in similar fashion as utilizing the lead ban date above.

Next steps to confirmation would take a "least invasive first" approach, such as customer self-assessment and reporting to ask homeowners to participate in the identification process and self-report their WSL material. Public engagement is a key strategy in developing a meaningful inventory. Raising awareness of lead in the community and the benefits of reporting help drive development of the inventory organically.

One cost-effective means of engaging the water customer for a self-assessment of their water service information is to develop and administer a QR coded-flyer/bill stuffer for the individual customer to scan, follow the instructions at the associated website, and upload a photo and/or any other pertinent information regarding their water service.

We have developed a customer canvassing plan within the Esri environment to track the data obtained from the outreach effort. This system is utilized to review the self-report data and will generate outreach letters, additional data requests, customer address reports, and updated service line inventories.

While Groton Utilities has sent mailings asking customers to self-report, a concerted effort utilizing multiple mailers with varying language and enforcement action, including fines and/or water shut offs, has been effective in ensuring customer response.



9/24/24

Re: How to locate and identify your water service material.

Dear customer:

The **City of Watervliet** is required by the Environmental Protection Agency (EPA) to develop a Service Line inventory and wants to assist its customers to identify and remove all lead service lines.

Do you know if you have a lead service line connecting the water distribution line in the street to your home?

If you do not know or is uncertain if you have a lead service line, take the following two steps:

SCAN ME

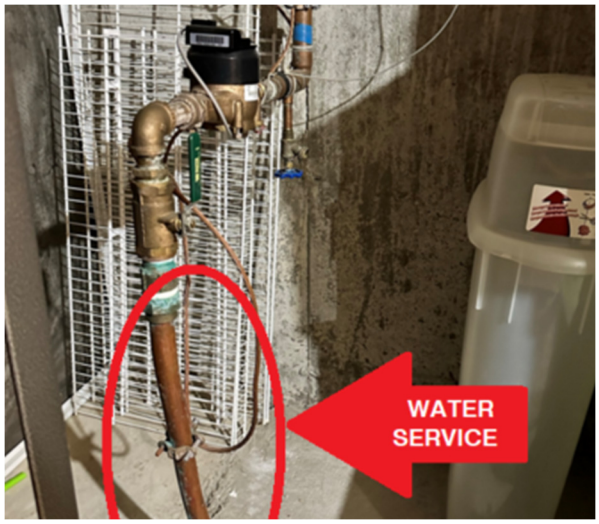
Step 1: IDENTIFICATION

Use Weston & Sampson's "Check for Lead" How to Check for a Lead Water Service - YouTube or scan the QR code to the left) to help you determine if your water service line is made of lead. This guide uses a 2.5-minute video of the step-by-step directions to identify the location and material type of your water service line.

Step 2: SNAP A PICTURE OF YOUR SERVICE LINE and UPLOAD

If service line materials are not identified during the outreach process, the Town should utilize existing operation and maintenance activities (main break and service break repairs, meter change outs and shut offs, etc.) as opportunities for identifying and/or confirming service materials. Additionally, we can coordinate with the Town to perform site investigations, identifying an inspector or sampling technician for each property to develop an appointment for each property.

As additional information is obtained throughout the process, from visual inspection and to outreach results, we will update the service line inventory, revising the information contained within the Town's GIS for eventual export into the CTDPH LCRR material Inventory template.



TASK 2 – LSL REPLACEMENT PLAN

As the inventory is being refined and updated, we will coordinate with the Town to determine an action plan and development of a LSL Replacement Program. Although many action plans will have similar components, there is no "one size fits all" procedure. Weston & Sampson will discuss the different approaches the Town may take and the many items that require careful consideration and coordination prior to implementation of an LSL Replacement Program.

The standalone LSL Replacement program does not mean the work cannot be done concurrently with other capital projects. By evaluating how the LSL Replacement program can be coordinated with other capital improvements projects, cost savings and efficiency can be realized. Weston & Sampson will meet with town staff to understand upcoming capital improvements projects and where LSL replacement can be incorporated. For example, the system can include an item in water main replacement projects, where, if a lead service is encountered, it is to be replaced in its entirety, using trenchless technologies, if feasible.

Piggybacking service replacements with other proximal utility work can be an effective strategy. Other methods include incorporating into all utility contracts, so that if a lead service line is found or damaged, then the Town must be notified, and the line be replaced. Weston & Sampson will work with the Town to determine the best approach for replacement, including different techniques available and pros and cons of water department staff performing a replacement versus private contractors. While town staff can replace the public portion of the water service, available data has shown the full lead service should be removed at the same time to avoid disturbance of particulate lead in the existing water service.

Weston & Sampson has found that coordination of the work itself, although important, tends to be the easiest component of the LSL Replacement Program. These programs become wholly unique to the individual water systems based on local ordinances, available funding, and determination of ownership and legal responsibilities for replacement. Weston & Sampson will first evaluate the completed WSL Inventory and establish baselines for planning:

- How many known LSLs exist?
- Do any unknown or potentially unlocated material conditions remain?
- What is the average cost of an LSL replacement? What is the total cost to replace all known or suspected LSLs?
- Where are these LSLs located and who is being served? Disadvantaged water users? Sensitive water users (e.g. schools, daycares, infants, etc.)

Once the above is understood, Weston & Sampson will work with the Town to determine replacement prioritization by ranking locations on sensitivity of population served (e.g., elementary school), cost effectiveness of replacement (e.g., those locations that coincide with planned capital projects) or a combination of the aforementioned. Further considerations include permitting requirements (e.g., utility assets of other ownership, local Conservation Commission, etc.) and environmental considerations.

Additional factors to understand, consider and address when developing an LSL Replacement Program are:

- Review of applicable local ordinances and bylaws
  - Develop an understanding regarding private side ownership and responsibility for replacement.
  - Examine the ability to adjust local ordinances or bylaws to create new regulations to meet the LCRR requirements. For example, adjust plumbing permits to require the service line material be identified

and line replaced if found to be lead, or if homes are sold, the service line material must be determined and replaced, if lead, prior to the sale of home.

- Budget and funding evaluation
  - Examine available funding sources, including capital budgets, grants, and loans.
  - Determine how the Town wants to tackle the cost of private side replacement, whether the utility pays for the replacement, homeowner pays, the Town pays a set portion or provides a loan to the homeowner, or funding is sought through other means like SRF or other funding.
  - Review utilization of CTDPH DWSRF to augment the Town's ability to review and replace LSLs.
  - Review the ability to self-fund this effort or a need to adjust water rates to cover proposed work.
- Creation of initiatives to replace LSLs to assist customers and encourage LSL replacement
  - Can Ledyard offer a rebate program if the property owner replaces the LSL? Will the Town offer a program where it will pay for both private and public replacement for a certain timeframe and after said timeframe, the property owner must replace the private portion at their own cost?
- Replacement policies and procedures
  - Develop standards for LSL replacement to meet LCRR requirements and Town needs (e.g., line must be replaced in its entirety (no partial replacements), sampling before and/or after LSL replacement, supply point of use filters, etc.)
- Record keeping and documentation of efforts
  - Evaluate different methodologies for documenting replacement progress to determine the best fit for the Town and their available technologies. For example, the Town may prefer to store all information in GIS or in form-based web applications like iDataCollect, where information can be logged along with photos and then exported in a report format. Options will be discussed to determine which will fit the Town's needs.

These programs affect a vast number of people and require careful coordination and consideration of these sensitive issues, so care must be taken when developing these plans. Weston & Samson will prepare a LSL replacement plan that meets the needs of Ledyard, CTDPH requirements, and provides the greatest benefit for the customer base, ensuring participation from homeowners for achieving full LSL replacement. The plan will include public education documents, outreach and response. This will include a replacement prioritization strategy, and a comprehensive goal for the rate of replacements.

Additionally, this work can also include excavation at the curb stop, water sampling, and visual inspection within the residence (especially if the customer self-assessment is incomplete or inconclusive). Weston & Sampson will work with town personnel to determine the best approach for identifying the unknown service materials. The approach will be based on funding available for test pit and inspection work, the ability to examine the service lines during other planned work (meter reading exercises, planned capital projects), the desired involvement level of other municipal departments, and so forth. As with all components of these programs, the approaches are unique to every water system and must be examined to create the most efficient programs.

Sequential sampling of service line and premise plumbing could be utilized to determine service line material but should only be completed for properties where this is no other way to identify the unknown system owned portion of the service line. Prior to performing any sampling, we will review acceptable practices and procedures with CTDPH.

If sequential sampling is a possibility or determined to be necessary and Weston & Sampson's scope of work includes in-home visual inspections, we will observe premise plumbing and track service line information using a survey form that includes documentation of the presence of a water meter, presence of an incoming valve, approximate length and location of the service line as it enters the property, and a photograph of the identified materials. We will measure premise plumbing dimensions and calculate volume for building specific sequential sampling (if necessary). Based on this inspection, we will develop a customized sequential sampling package tailored to the unique plumbing layout and service line characteristics.

Once determined, materials and instructions will be provided to the customer to perform the sequential sampling developed for the building. This process will include collecting water samples at various points after allowing for a set stagnation period. Our team will then collect the samples taken by the customer, transport them to a certified lab, and analyze the results to determine if lead is present in the water, which could be an indication that a LSL is present.

In our experience, sequential sampling requires a minimum quantity of verified lead pipe to be present in the distribution system to correlate sampling results. Alternative identification methods such as predictive and statistical modeling would provide better insight as to the location of lead or galvanized requiring replacement (GRR) services without having to perform 100 percent field verification. An 80/20 statistical model based on each water system's individual data would identify the highest likelihood for lead containing services that could be targeted for field verification.

Weston & Sampson can assist the Town with the development of a predictive model for the LSL placement process using best management practices approved by CTDPH and document the methodology and outcomes from the modeled results. Modeled results will be utilized in related tasks to aid in the success of future tasks.

Where identification of public service material must be performed (without the need for test pitting or excavation), an alternative method to sampling is technology that scans the inside of the pipe using a probe inserted from the home toward the water main up to 80 feet from the point of insertion.

As part of the proposed scope of services, we can identify contracts and/or vendors that will enable the Town to supply filters and pitchers to customers impacted by a LSL and/or affected by the LSL Replacement Program. Weston & Sampson can assist the Town in preparing procurement documents and/or selecting the appropriate pitcher/filter provider.

Additionally, Weston & Sampson can assist with legal agreements for private-side work, developing and maintaining LSLR plans, drawings, and specifications, the preparation of construction contract documents which include flushing plans, and assistance with bid phase services.

TASK 3 – LSL REPLACEMENT PROGRAM MANAGEMENT

As part of the construction phase support, Weston & Sampson will monitor construction for compliance with the contract documents, arrange and conduct meetings between the Town, Construction Contractor, and other engaged parties, review shop drawings, pay requisitions, and other Construction Contractor submittals, and administering the project in accordance with funding program requirements.

Construction and project correspondence will be reviewed to assess contract compliance, and the team will oversee final project closeout activities including punch list preparation, substantial completion certification, and assembly of warranties and guarantees. Public outreach and education will be coordinated in areas impacted by LSL replacements and tap sampling will be conducted before and after replacements to ensure water quality and regulatory compliance. Weston & Sampson will assist the Town with pitcher filter distribution utilizing the selected pitcher filter vendor(s).

TASK 4 – PUBLIC EDUCATION AND OUTREACH PLAN

Weston & Sampson will assist with the development of and implementation of a public outreach program in accordance with the EPA's LCRR requirements. Preparation of public education and outreach plans will include:

- Developing materials that clearly and concisely detail the dangers of lead, how to identify LSL and actions residents can take to play their part in "getting the lead out." Materials should be drafted for use in various means of outreach including, but not limited to, posts for the Town's website, social media, paper mailers, and presentations at local events and meetings.
- Develop communication policies and procedures to timely inform customers of upcoming work and program progress.
- Create targeted materials for distribution to schools and childcare facilities that discuss sample results and provide information on the

hazards of lead and what the schools can do to help educate their students and families.
- Develop Right of Entry forms for homeowners to sign acknowledging they understand their rights and have given approval for work to occur on private property.
- Determine response approach to inquiries requesting work be performed immediately.

These materials will be tailored to the specific needs of the water system as necessary. Outreach materials will be submitted to the Town for review and final approval before distribution to the public.

Under the LCRI, when the Lead Action Level (LAL) of 10 ppb is exceeded, the PWS must conduct a 24-hour Tier I Public Notification. In addition to specific public education and outreach, multiple exceedances in a 5-year period require additional risk mitigation measures. Under this task, Weston & Sampson could prepare a Tier I Action Level Exceedance Plan, which could include items such as:

- Communication Flowchart/matrix that documents each person(s) responsible for informing the different parties of the exceedance (e.g. DEP, EPA, Mayor's office, DPW Director)
- Plan of action for optimizing or re-optimizing OCCT
- Filter plan in case of two LAL exceedances in a 5-year period
- Public Education and Activity Plan and corresponding Draft Public education materials

TASK 5 – LCRR/LCRI SUPPORT SERVICES

Under the LCRI, Lead and Copper Sample tiers have been adjusted, and Public Water Suppliers must utilize the new tiers and baseline inventory findings to prepare a new Lead and Copper Sample Plan. The LCRI details when lower tiers may be sampled and when sites are no longer viable for sampling.

For this project, we will utilize the EPA-tiered approach, which recommends the following course of action for determining sampling locations:

- Tier 1: Single-family homes with lead pipes or copper pipes with lead solder installed after 1982
- Tier 2: Multifamily homes with lead pipes or copper pipes with lead solder installed after 1982
- Tier 3: Single-family homes with a galvanized line currently or formerly preceded by a lead line, or currently preceded by a lead gooseneck
- Representative Site: Plumbing materials used at the site that are commonly found at other sites served by the water system

The tiered approach prioritizes certain locations as preferred sampling sites. As each individual tier is exhausted, lower tier designations can be considered for use as sampling locations.

Additionally, targeted sampling sites will be determined through a coordinated effort with Town personnel and will consider; accessibility, property owner participation, existence POU/POE treatment system, water age of sampling location, and location of the service within the existing water system. All proposed locations will be submitted to CTDPH for review and approval prior to implementation.

Additionally, the LCRI requires first and fifth liter sampling at sites served by LSL. As a result of these regulations, changes will likely be needed to be implemented to the Town's LCR Sample Plan. In our experience, it can be difficult to obtain volunteers for LCR Sample programs. To proactively prepare a new LCR Sample Plan, Weston & Sampson will utilize the inventory to perform outreach to potential sample sites to recruit sample program volunteers. Weston & Sampson will also coordinate sampling at sites served by LSL that are current or new volunteers in order to understand how the first and fifth liter sample results may affect the Town's 90th percentile calculations and determine the probability of LAL exceedances.

The LCRI has made updates to LCR sampling directives and the Town's current sample instructions and outreach materials will likely need to be updated to reflect these changes. Weston & Sampson will make the necessary updates to the Town's current outreach material to make sure it aligns with the new regulation requirements.

Weston & Sampson℠

STATEMENT OF AA/EEO POLICY

Weston & Sampson is committed to a policy of equal employment opportunity for all its employees and applicants. Weston & Sampson's growth and success depend largely on utilizing to the fullest extent possible all available human resources. We actively seek and employ qualified persons in all job classifications and administer all personnel actions without regard to race, color, religion, sex (including pregnancy, sexual orientation and gender identity), age, national origin, physical or mental disability, genetic information, status as a protected veteran, or any other protected status under applicable federal, state or local law.

Weston & Sampson will continue to further its policy of equal employment opportunity by recruiting, hiring, compensating, training, and promoting persons in all job classifications without regard to race, color, religion, sex (including pregnancy, sexual orientation and gender identity), age, national origin, physical or mental disability, genetic information, status as a protected veteran, or any other protected status under applicable federal, state or local law. Promotion decisions will continue to be reviewed in an effort to ensure that only valid criteria are used when evaluating employees for promotional opportunities.

Furthermore, systematic review of personnel actions will attempt to ensure that all terms and conditions of employment, such as compensation, benefits, transfers, layoffs, return from layoffs, and any Company-sponsored training, education, social, or recreational programs, are administered without regard to any protected status under applicable federal, state or local laws. Weston & Sampson has established reporting and monitoring systems in an effort to ensure adherence to this policy of nondiscrimination. Every employee and member of management is expected to support and promote our EEO and AA policy within his/her area of assigned responsibility.

As part of Weston & Sampson's overall EEO policy, the harassment of others because of their protected class status is not tolerated. An atmosphere of tension created by disparaging remarks or animosity, unwelcome sexual advances, requests for sexual favors, inappropriate touching or other conduct of a sexual nature does not belong in our workplace. When any such verbal or physical conduct or overtures unreasonably interfere with any individual's work performance or create an intimidating, hostile, or offensive work environment, the offended individual is required to notify the AA/EEO Officer so that we may have an opportunity to investigate and resolve the problem. All inquiries will be investigated and dealt with expeditiously and handled with the highest degree of confidentiality possible except, for example, where disclosure is required by law, regulation, or legal process, or is necessary to allow investigation of the complaint. Employees are expected to cooperate in such investigations. Failure to cooperate or providing false, deliberately deceptive, or intentionally misleading information may result in disciplinary action, up to and including termination from employment.

The Company's EEO policies prohibit employees and applicants from being subjected to harassment, intimidation, threats, coercion, discrimination, or retaliation because they have engaged in, or may engage in: (1) Filing a complaint; (2) Testifying, assisting, or participating in an investigation, compliance review, hearing, or any other activity related to applicable equal employment opportunity law; (3) Opposing any act or practice made unlawful by applicable equal employment opportunity law; or (4) Exercising their rights under applicable equal employment opportunity law.

To assure compliance with the plan, Colleen Manning, AA/EEO Officer, has been designated to administer and monitor the program and make reports to the Company's senior managers. She may be contacted at (978) 532-1900. The non-confidential portions of the program are available for inspection upon request during normal business hours.

This policy has my personal support.

Francis M. Ricciardi, PE, LSP
(Weston & Sampson Engineers, Inc.)
(Weston & Sampson CMR, Inc.)
(Weston & Sampson Services, Inc.)
Date: January 1, 2025