



QUALIFICATIONS FOR

Lead and Copper Rules Revisions Compliance 2026-02



Qualifications for

Lead and Copper Rules
Revisions Compliance
2026-02



10.02.2025

Contact

**Joseph J. Todaro, P.E.,
LEED AP BD+C**
Vice President, Deputy Market
Director of Water/Wastewater

H2M Architects & Engineers, Inc.
360 Bloomfield Avenue,
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860.607.9011 ext.1445



jtodaro@h2m.com

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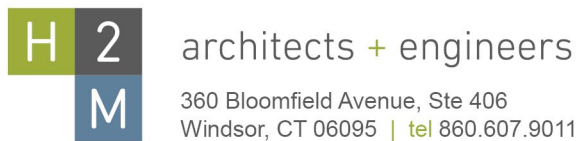
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October 2, 2025

Mr. Matthew Bonin, Finance Director
Mayor's Office
741 Colonel Ledyard Highway
Ledyard, CT 06339

RE: Qualifications for Lead and Copper Rules Revision Compliance 2026-02

Dear Mr. Bonin:

The Town of Ledyard (Town) is seeking a professional engineering consultant to manage its lead and copper rule compliance (LCRR) program. The selected consultant must be well-versed in developing service line inventories and replacement plans; managing service line inventory and replacement programs and related public outreach and education initiatives; and advising on Connecticut Department of Energy and Environmental Protection (CTDEEP), Connecticut Department of Health (CTDPH), and Drinking Water State Revolving Fund (DWSRF) requirements related to LCRR compliance.

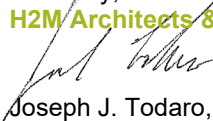
H2M Architects & Engineers, Inc. (H2M) is pleased to submit our qualifications and approach for this important project. Founded in 1933, we are a multi-disciplinary engineering and architecture firm focused on providing clients quality services and creative, functional solutions. We have a history of working with various municipalities and utility companies to maintain accurate service line inventories, identify service line materials, and oversee the replacement of lead and galvanized service lines throughout the tristate area. Our LCRR-compliance projects have varied in size and scale but have all involved the utilization of our in-house GIS professionals, enabling municipal administrators to track, log, and visualize both the inventory and replacement process. We have significant experience coordinating with departments of health on behalf of our clients during the iterative inventory compilation process, which will bring considerable value to the Town for this project. Currently, we are performing this type of work for the Town of Winchester in Litchfield County. Additionally, we have significant experience in securing DWSRF funding as well as complying with the reporting and required conditions of this program.

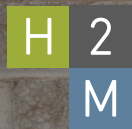
To oversee this project, we propose Neil O'Connor, P.E., as our Project Manager. He has more than two decades of municipal engineering experience and is managing our project with Winchester. Before joining H2M, Mr. O'Connor worked as the Engineer Supervisor at the City of Albany Water Department, where he oversaw the City's lead service line inventory and replacement program. This involved utilizing ArcGIS online and Survey123 to update and maintain water service records and coordinating with the City after the inventory was developed. Moreover, Mr. O'Connor helped secure over \$12.8 million in funding from the New York State Environmental Facilities Corporation (EFC) toward the City's inventory and replacement program. I will support Mr. O'Connor, the team, and overall performance of this project as our Principal-in-Charge. I have more than 35 years of water supply design and project management experience, with expertise in water treatment systems and the removal of emerging contaminants. We will maintain this team and leadership structure throughout the design and construction phases of this project.

H2M knows through firsthand experience how to deliver a successful LCRR compliance program and position the Town to meet future Lead and Copper Rule Improvements (LCRI) requirements. In addition to our water resource expertise, we will provide the Town with a 580+ personnel professional network equipped to handle any challenges that may arise during this project. Should you require additional information or have questions about our submission, please contact me at 860.607.9011 ext. 1445 or email at jtodaro@h2m.com. Thank you for your consideration.

Sincerely,

H2M Architects & Engineers, Inc.


Joseph J. Todaro, P.E., LEED AP BD+C
Vice President, Deputy Market Director of Water/Wastewater



Here at H2M, we value people.



H2M was organized in 1933 and founded on the principles of professional excellence, hard work, and integrity.

H2M is a multi-disciplined professional consulting and design firm with a proud legacy of client service and a proven ability to tackle complex architectural, engineering, and environmental challenges. Since 1933, we have played a vital role in shaping local communities — designing and improving essential infrastructure such as water treatment plants, emergency response facilities, schools, roadways, public buildings, and more.

The H2M companies consist of H2M Associates, Inc.; H2M Architects & Engineers, Inc.; and parent company H2M Architects, Engineers, Geology, Land Surveying and Landscape Architecture, DPC. With offices throughout New York, New Jersey, Connecticut, Pennsylvania, and Florida, H2M is uniquely qualified to provide responsive, personal service to our clients in the Northeast.

With decades of experience, we have built a reputation for delivering high-quality, client-focused solutions that balance innovation with practicality. Our approach is rooted in collaboration, technical excellence, and a deep understanding of the communities we serve. Whether navigating regulatory complexities, addressing evolving environmental concerns, or designing spaces that enhance everyday life, H2M remains committed to providing sound judgment, creative problem-solving, and exceptional service at every stage of a project.

H2M takes pride in the depth and diversity of our comprehensive in-house service capabilities. With a team of over 580 professionals — including engineers, architects, surveyors, scientists, planners, landscape architects, inspectors, and technical support specialists — we provide a fully integrated, multidisciplinary approach to our clients.

H2M Staff by Discipline



OPERATING PHILOSOPHY

MISSION

Our People

We commit to developing our people and rewarding hard work with growth opportunities in an inclusive professional environment.

Our Clients

We commit to being trusted advisors for our clients and delivering problem solving value and quality on every project.

Our Communities

We commit to creating thriving and healthy communities by giving of ourselves and developing sustainable solutions that benefit everyone.

VISION

We exist to improve the quality of life for everyone in our reach by empowering our diverse talent to sustainably solve the challenges of the built environment.

VALUES

We Stand as One H2M

Inclusive. Supportive. Collaborative.
No matter where you are.

We Challenge One Another

We show up curious and push boundaries.

We Do the Right Thing

Our character is built on doing what is right and ethical.

We Work Safely

We care for the lives of our people and their families.

We Own it

We hold ourselves accountable for team success and personal achievement.

We Embrace Diversity

We acknowledge and honor the fundamental value and dignity of all individuals.

Town of Winchester/Winsted Lead Service Line Inventory

To comply with the EPA's Lead and Copper Rule Revision (LCRR) requirements, the Town of Winchester/Winsted Water Works initiated a Lead Service Line (LSL) inventory project to be completed by October 16, 2024. H2M was awarded the project to assist the Town in meeting this regulatory deadline.

The historic Town of Winchester was incorporated in 1771 and owns some water infrastructure that predates 1900. The system includes over 40 miles of water mains and 2,575 service lines, serving a population of 7,700. The project aimed to document the current state of the water system, including upgrades and maintenance. H2M leveraged GIS services to accurately reflect and update the LSL inventory addressing challenges related to obtaining records and funding approvals. The project team worked to quickly scan and incorporate records into the GIS database. H2M expanded the scope to include customer notifications, reallocating some funds to ensure compliance.

Critical deadlines included submitting the LSL inventory by October 16, 2024, and notifying customers by November 15, 2024. Both deadlines were met and a robust GIS-based inventory was developed that will streamline LSL replacement in future phases. The project received funding through Connecticut Department of Health Drinking Water State Revolving Fund (DWSRF) in two rounds for the inventory and field investigation. This successful collaboration has ensured the Town's drinking water system is well-documented and prepared for future improvements.

Town of Hempstead Lead and Copper Compliance Program Management

H2M was chosen by the Town of Hempstead to create a GIS-based digital archive of its LSL to meet Federal regulations put into effect in December 2021. The EPA's LCRR makes it incumbent upon water suppliers to create an inventory of all operational LSL supplying customers, communicate openly with customers about the risks of lead in drinking water, address how the supplier plans to replace these service lines, and meet additional requirements for lines servicing educational and childcare facilities. In addition to helping the Town work toward the eventual replacement of its active lead service lines, H2M assisted in helping the Town optimize treatment systems and meet the EPA's specification for sample collection. Building the Town LSL map involved the compilation, review, and integration of data of more than 130,000 residents into an interactive database. This involved using manual and programmatic research methods to review 100,000 print tap card records and 150,000 digital records from more than 6,000 residential addresses.

Passaic Valley Water Commission (PVWC) Subsurface Exploratory Investigation

PVWC suspected that a significant number of the existing customer water service lines in these four municipalities were lead or lead-lined. In response, PVWC implemented a program to

identify and replace LSL, including the portion of the customers' service that is located on private property in an attempt to avoid partial lead service connections.

A subsurface investigation included approximately 6,200 locations on local, county, and state roads, of which approximately 4,700 were excavated through February 2022. The construction work involved excavating a test pit over the service at the curb stop valve box to identify the materials of construction and determine if the service is lead (galvanized pipe with lead lining) or copper. A combination of traditional excavation and vacuum excavation were utilized. H2M's professional engineers and field technicians provided construction inspection and management. We worked closely in concert with PVWC's project representatives to keep PVWC apprised of the progress throughout the course of the project. Additionally, our team served as a liaison between PVWC and its customers for information dissemination and education, receiving and processing complaints, and obtaining customer permission for water service line replacement on private property. We also coordinated work on County roads and prepared and submitted hundreds of County road opening permits. We also assisted PVWC by updating various databases on a routine basis with all pertinent information for the project, including customer water service information, field reports and project photos, status of agreement forms, restoration status, material inventories, and permit status.

Village of Garden City LSL Inventory & Replacement

To accommodate the EPA's revised LCRR, the Village must complete a comprehensive LSL inventory by October 16, 2024 and subsequently develop a LSL Plan. The results of the LSL inventory will inform the Village's LSLR program.

H2M's staff reviewed several thousand individual records provided by the Village, including Excel spreadsheets, building permits, plumbing permits, and nearly 1,500 engineering plans. Information pertaining to water main material was transposed from the source materials to the GIS data. Source documents were also attached to the GIS data to facilitate simplified, map-based retrieval in the future. In addition to scanned documents, H2M incorporated information from engineer field observations, customer reports, and date of construction, as documented by the Nassau County Office of the Assessor.

In the midst of this LSL work, the Village was presented with a dilemma as news of a resident with elevated blood levels spread. H2M assisted the Village with a widespread sampling program as well as with notifying the public, developing informational brochures, etc. The sampling results were used as an additional measure in making further determinations about the retirement and replacement of the Village's LSL.

The final deliverable to the Village is a GIS dataset stored within ArcGIS Online, which provides Village staff with an interactive, searchable map of customer locations and associated main material, along with assignment justification in the form of attached source documents.

Grant Applications & Funding

The DWSRF provides financial assistance for drinking water projects throughout the U.S. that are administered at the state level. Within the past five years, our firm has assisted local municipalities and water/wastewater authorities in the administration of nearly \$500 million in grants for infrastructure improvement projects in the tristate area. We are well-versed in the procedures and requirements associated with DWSRF funding, grants, and financing, including MBE/WBE/SDVOB goals, American Iron and Steel, Build America, Buy America, and Davis-Bacon prevailing wage. Moreover, we have obtained grant funding and low/zero-interest financing for several projects similar to the Town's. We have an agent dedicated to handling and tracking funds and grants our clients have been awarded for their various projects. Her responsibilities include coordinating with our clients and funding agencies to ensure that paperwork is filed on-time, contractors comply with MBE/WBE/SDVOB requirements, and projects are progressing per schedule. Below are examples of funding we have helped our clients obtain and administer over the past five years:

Applicant Name	# of Projects	Approximate Project Cost	Approximate Funding Amount
Allamuchy Township	1	\$682,800	\$682,800
Bethpage Water District	4	\$17,685,188	\$9,013,913
Brick Township	1	\$16,925,680	\$16,925,680
Brielle, Borough of	2	\$5,168,812	\$5,168,812
Calverton Sewer District	1	\$10,500,000	\$6,941,000
Carle Place Water District	1	\$8,800,000	\$5,000,000
Dix Hills Water District	2	\$10,087,750	\$6,042,000
Dutchess County Water Authority	2	\$12,072,276	\$7,243,366
Fishkill, Village of	1	\$5,507,789	\$3,000,000
Franklin Square Water District	2	\$11,871,000	\$7,727,600
Garden City Park Water District	3	\$18,672,000	\$11,203,200
Garden City, Village of	6	\$44,983,496	\$25,670,098
Greenlawn Water District	4	\$18,154,000	\$10,794,300
Hampton Bays Water District	3	\$12,400,000	\$8,149,200
Hempstead, Town of	5	\$59,779,000	\$35,867,400
Hicksville Water District	6	\$65,745,000	\$36,594,400
Highlands, Borough of	2	\$11,384,367	\$11,384,367
Jericho Water District	1	\$9,827,950	\$5,896,770
Locust Valley Water District	3	\$11,740,000	\$7,744,000
Manhasset-Lakeville Water District	4	\$31,460,500	\$18,876,300
Nyack, Village of	2	\$15,012,890	\$7,749,320
Oyster Bay Water District	3	\$11,936,000	\$7,018,600
Patchogue, Village of	2	\$31,800,000	\$31,000,000
Plainview Water District	7	\$64,105,970	\$34,069,782
Riverhead, Town of	1	\$2,260,000	\$2,327,800
Roslyn Water District	3	\$16,859,877	\$10,115,926
Smithtown Water District	1	\$1,426,000	\$998,220
South Central Connecticut Regional Water Authority	1	\$1,772,800	\$1,772,800
South Farmingdale Water District	2	\$17,312,000	\$6,840,000
South Huntington Water District	4	\$31,625,658	\$15,609,677
Suffolk County	3	\$127,200,000	\$59,700,000
Wall Township	2	\$4,401,620	\$3,887,599

Water Authority of Great Neck North	2	\$31,151,323	\$8,000,000
Water Authority of Western Nassau	7	\$84,366,730	\$44,389,070
West Hempstead Water District	1	\$6,540,250	\$3,924,150
Westchester Joint Water Works	1	\$8,000,000	\$3,200,000
Westhampton, Village of	1	\$21,300,000	\$12,000,000
Weston, Town of	1	\$442,019	\$442,019
Winchester/Winsted, Town of	1	\$260,000	\$260,000
Yonkers, City of	2	\$7,171,880	\$4,663,128
TOTAL	101	\$868,709,825	\$498,210,497

References

H2M has successfully performed lead service line projects for various clients. We encourage you to contact the references provided below to verify our track record.

Client: Town of Winchester/Winsted Lead Service Line Inventory

Contact: Jim Rollins, Director of Public Works

Address: 189 Rowley Street, Winsted, CT 06098

Phone: 860.379.4101

Email: jrollins@townofwinchester.org

Client: Town of Newtown Water Main Replacement

Contact: Fred Hurley, Director of Public Works

Address: 4 Turkey Hill Road, Newtown, CT 06470

Phone: 203.270.4300

Email: fred.hurley@newtown-ct.gov

Client: Passaic Valley Water Commission Lead Service Line Replacement and Subsurface Exploratory Investigation

Contact: Patrick Porcaro, Chief of Engineering

Address: 1525 Main Avenue, Clifton, NJ 07011

Phone: 973.340.4355

Email: pporcaro@PVWC.com

Client: Hicksville Water District Lead Service Line Inventory

Contact: Paul Granger, Superintendent

Address: 10 Manetto Hill Road, Hicksville, NY 11803

Phone: 516.944.3549

Email: pgranger@hicksvillewater.org

Client: Town of Hempstead Lead and Copper Compliance Management Program

Contact: John Reinhardt, Commissioner

Address: 350 Front Street, Hempstead, NY 11550

Phone: 516.794.8300 ext. 8200

Email: JReinhardt@hempsteadny.gov



**Joseph J. Todaro, P.E., LEED AP BD+C | Principal-in-Charge**

Mr. Todaro brings over 35 years of expertise in water supply engineering, specializing in the analysis and design of water systems, treatment facilities, storage solutions, and pumping infrastructure. His responsibilities span the development of design plans and specifications, preparation of technical reports, system evaluations, and client engagement for project scoping and planning. He also oversees construction administration, ensuring seamless execution from concept to completion and is H2M's Deputy Market Director of Water and Wastewater.

**Neil J. O'Connor, III, P.E. (NY) | Project Manager**

Mr. O'Connor is a professional engineer with 20 years of experience delivering design solutions for a broad range of public and private sector projects. His expertise spans water, sewer, stormwater, and site layout design. He has a deep understanding of regulatory requirements from the Connecticut Department of Energy and Environmental Protection (CTDEEP) and Department of Health (DOH). He is also proficient in industry-standard software including AutoCAD, Autodesk, and ArcGIS, supporting his ability to deliver efficient and compliant project designs.

**William F. Delnero, P.E. (NY) | Lead & Copper Subject Matter Expert (SME)**

Mr. Delnero is a seasoned civil and environmental engineer with over 15 years of experience in water resources and wastewater engineering. His areas of expertise include lead service line replacements, water main design, treatment plant design for emerging contaminants, storage tank inspections, and the design of wastewater pump stations. He also has a strong background in storm hardening and resiliency planning. In addition to his technical capabilities, he has successfully managed several design-build projects, demonstrating his ability to lead complex initiatives from concept through completion.

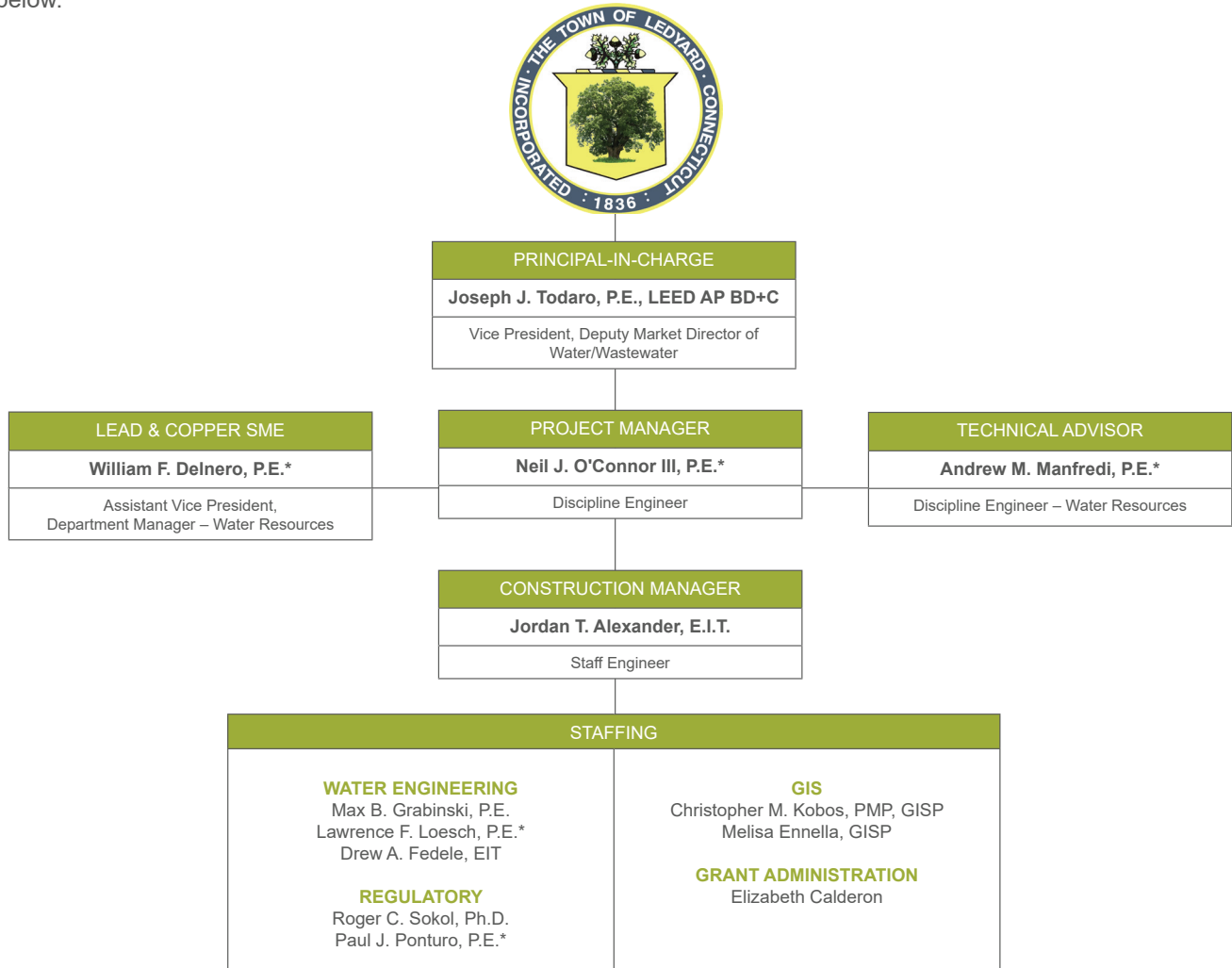
**Andrew M. Manfredi, P.E. (NY) | Technical Advisor**

Mr. Manfredi is an experienced engineer specializing in water treatment technologies and public works project delivery. His responsibilities include preparing engineering reports, specifications, and design plans to support regulatory approvals and competitive bidding processes. His technical expertise spans optimal corrosion control evaluations, advanced oxidation processes (AOP), granular activated carbon systems, and packed tower aeration. His additional project experience includes the rehabilitation and construction of elevated water storage tanks. He is proficient in BIM software and advanced applications such as 3D laser scanning and modeling, enhancing both design accuracy and project visualization.

**Jordan T. Alexander, E.I.T. | Construction Manager**

Mr. Alexander is a staff engineer with hands-on experience in clean water, wastewater, and stormwater infrastructure projects. His background includes the design of gravity and low-pressure sewer collection systems, as well as construction administration and inspection for clean water mains and water pumping stations. His practical field knowledge and design capabilities support the successful delivery of municipal and utility projects.

The successful completion of a project requires a diverse pool of experienced personnel capable of performing tasks within their area of expertise. H2M's management and project managers are also aware that the success of any project is dependent upon the close cooperation required between H2M staff and the project personnel of the Town of Ledyard. The proposed organization of personnel and resources is intended to bring together a team of professionals that can focus on project objectives as well as respond to unanticipated circumstances or issues. Billing rates for our proposed personnel are provided in the organizational chart below.



* – Licensed in Other States



Resumes for the above key personnel follow this page.





Joseph J. Todaro P.E., LEED AP BD+C

Vice President, Deputy Market Director of Water/Wastewater



Mr. Todaro has 35 years of water supply engineering experience including water systems analysis and the design of water supply, water treatment, water storage, and pumping facilities. Mr. Todaro's responsibilities include the preparation of design plans and specifications, technical reports, system evaluations, client liaison for project scoping and planning, construction administration.

Selected project experience

- Winsted Water Works Lead Service Line Inventory; Winchester, CT: Serving as the Technical Advisor to a team developing a GIS database of the Town's water service lines to achieve compliance with the Lead Service Line Inventory and Lead and Copper Rule Revisions. Overseeing and advising on coordination with Town staff to obtain, track, and manage records for their review to determine line composition. Working alongside GIS lead to ensure GIS data infrastructure meets the Town's needs and can inform the future line replacement program.
- Hicksville Water District Lead Service Line Inventory; Hicksville, NY: Served as the Technical Advisor to a team developing a GIS database of the Town's water service lines to achieve compliance with the Lead Service Line Inventory and Lead and Copper Rule Revisions. Oversaw and advised on coordination with Town staff to obtain, track, and manage records for their review to determine line composition. Partnered with GIS lead to ensure data infrastructure met the Town's needs and could inform a future line replacement program.
- Town of Hempstead Lead and Copper Rules; Hempstead, NY: As Technical Advisor, advised a team of GIS professionals and water resources engineers in the development of an inventory to bring the Town in compliance with the Lead and Copper Rule Revisions. Oversaw and advised on coordinating with Town staff to obtain, track, and manage records for their review to determine line composition. Partnered with GIS lead to ensure data infrastructure met the Town's needs and could serve as the basis of a future line replacement program.
- Town of Newtown Fairfield Hills Campus Water Distribution System Replacement; Newtown, CT: Design services for the replacement of the existing potable, public water system on the Town of Newtown, Fairfield Hills Campus. The project involves the design and implementation of a water main replacement in the campus hub, water main relining, and rehabilitation of Well No. 8, including mechanical and electrical upgrades.
- Lead Investigation for the Village of Garden City. Project Manager for the investigation into an elevated blood lead level and ensuing Village wide evaluation, including coordination with NYS and Nassau County Health Departments, developing plans for critical area sampling, evaluating results, notifying residents, preparing a corrosion control study and developing and implementing two rounds of lead and copper compliance sampling.
- AOP Pilot Study and Design Program for the Village of Garden City. Program manager for the deployment of numerous pilot studies and interim and final designs for the treatment of emerging contaminants, 1,4-Dioxane and perfluorinated compounds (PFOS) at all the wells in the Village to have enough supply to handle demands once the regulations are promulgated. All wells in the Village are impacted with emerging contaminants and a planning study was performed to evaluate options. Arranged for Village to purchase equipment directly for these wells to expedite process and timeframe for installation and operation. Coordinated the design of all ten well's AOP treatment systems and scheduling to ensure the Village can operate during system testing and changeovers.
- New Water Supply Well and Pump Station at South Park Drive for Bethpage Water District. Project manager for a new 2,000 gpm water supply well and pump station within an easement in Bethpage State Park. Project included interior pump station design and layout to allow the facility to be an educational outlet with equipment viewing areas. Design included coordination with NYSDOT and Parks departments for the modification and traffic control systems along the State's Shared Use Path.

Education

M.S., Environmental Engineering;
Polytechnic University

B.S., Civil Engineering;
Polytechnic University

Water Distribution Network
Modeling Seminar

Risk Assessment Methodology for Water

Licenses/ Certifications

Professional Engineer: NY, NJ, CT, FL, MA, RI

LEED Accredited Professional, USGBC

H2M Project Management Certification

Memberships

American Water Works Association

Long Island Water Conference

National Society of Professional Engineers

U.S. Green Building Council

Next →

Joseph J. Todaro

P.E., LEED AP BD+C

Vice President, Deputy Market
Director of Water/Wastewater

- New Water Supply Well and Pump Station at Greenlawn Water District Plant No. 18. Project manager for a new 1,4000 gpm water supply well and pump station at an existing District facility. Project included construction of a satellite pump station and incorporation of electrical and mechanical equipment within the existing pump station of a previously abandoned well.
- Expansion of Potable Water Transmission Infrastructure for the City of Glen Cove. Project Manager for the installation of 9,000 feet of water main for improvements to the City's distribution system, as well as, necessary distribution improvements to supply the Water Development Area. This project was coordinated with the design of the Herb Hill - Garvies Point Road reconstruction project.
- Volatile Organics Removal at Roslyn Water District Plant No. 8. Project Manager for the design and construction of a packed tower aeration facility including incorporation of existing granular activated carbon treatment into the process design.
- Volatile Organics Removal system for the Roslyn Water District Plant No. 1. Project Manager for emergency design and construction of new granular activated carbon system for peak summer demands requiring fast track design.
- Volatile Organics Removal at Roslyn Water District Plant No. 4. Project Manager for the design and construction of a packed tower aeration facility originally slated for fast track construction on site, but later revised for construction in an adjacent park. Services included coordination with various municipalities for proper approvals and consent for construction.
- Well rehabilitations for various water districts. Projects include the replacement of pump bowl and column pipe assemblies, cleaning casings, and in some cases, chemical treatment of the wells.
- Rehabilitation and repainting of a 2.0 million gallon standpipe for Roslyn Water District. Services included full containment, tank repairs and full interior and exterior coatings.
- Developed a five year master plan for Roslyn Water District to establish the basis for bond and reserve funding to address system capacity and water quality issues. Plan involved creating a distribution model and evaluating District pumpage demands, system capacity, distribution system, etc. Plan included projects consisting of treatment for volatile organics, new transmission mains, storage tank rehabilitations, new water supply well and pump station, etc.

Prior to joining H2M, Mr. Todaro worked for a consulting firm where he served as head of the water resources department handling the design and management of various water supply and treatment projects, studies and evaluations. In this capacity, he was district engineer for numerous water suppliers, where his duties included providing systems evaluations, capital improvement planning, engineering reports and studies, plans and specifications. Some representative projects include the following:

- Packed Tower Aeration facilities for volatile organics removal including Village of Garden City Plant No. 9, Water Authority of Great Neck North Plant Nos. 2A and 9, Jericho Water District Plant Nos. 25 and 26 and Albertson Water District Plant Nos. 1 and 2 and Plant No. 5.
- Granular Activated Carbon facilities for volatile and synthetic organics removal including Jericho Water District Plant Nos. 5, 9, 13 and 14, Greenlawn Water District Plant No. 8, City of Glen Cove Duck Pond Road Plant for Well Nos. 30 and 31 and Seaman Road Plant and Water Authority of Great Neck North Plant Nos. 12 and 13.
- Replacement water supply wells and building modifications including Lido-Point Lookout Water District Plant Nos. 1 and 2, Village of Sand Point Well Nos. 2 and 5, Water Authority of Great Neck North Plant No. 10.
- Water storage tanks including 500,000 gallon elevated storage tank and 1.0 MG ground storage tank and booster station for Water Authority of Great Neck North and 1.0 MG ground storage tank for Locust Valley Water District.
- Water storage tank rehabilitation and re-painting including Jericho Water District, Locust Valley Water District, Massapequa Water District, etc.
- Water System Evaluations – Developed a water distribution system network map; established network parameters regarding “C” factors and usage demands; calibrated networks using ISO fire flow data and performed analysis of potential future design demands and scenarios, including the addition of new storage facilities, new supply wells, transmission main improvements at the Carle Place Water District, City of Glen Cove, Lido-Point Lookout Water District, Massapequa Water District, Roslyn Water District, Village of Freeport, Water Authority of Great Neck North, Locust Valley Water District.



Neil J. O'Connor III P.E.

Discipline Engineer - Wastewater Engineering



Mr. O'Connor is a professional engineer with 20 years of experience in the design of a wide range of public and private projects, including water, sewer, stormwater, and site layout projects. He has a strong understanding of the rules and regulations of the New York State Department of Environmental Conservation (NYSDEC), New York State Environmental Facilities Corporation (EFC) and New York State Department of Health (DOH). Mr. O'Connor is proficient in AutoCAD, AutoDesk, and ArcGis.

Selected project experience

- Westchester County Department of Public Works and Transportation CompostED Facility Leachate Discharge; Valhalla, NY: Project Manager and client liaison for the CompostED Facility leachate discharge project on the Valhalla campus.
- Etain Health Public Water Supply Technical Due Diligence Report; Chestertown, NY: Project Manager and client liaison responsible for engineering due diligence and analytical activities related to the registration of a new public water system for an agra manufacturing facility. Development of a report in compliance with NYS and Warren County Department of Health standards and regulations.
- Dutchess County Water and Wastewater Authority (DCWWA) Tertiary Filter and Disinfection Evaluation; Beekman, NY: Evaluation of the existing tertiary rapid sand filter and UV disinfection systems at the Dalton Farms Wastewater Treatment Plant (WWTP). Both systems were non-operational due to a series of equipment failures. The team provided an engineering design report with proposed alternatives; the DCWWA selected to replace the systems with ones that aligned with their long-term goals, including sustainability, efficiency, cost effectiveness, and regulatory compliance.
- Winsted Water Works Lead Service Line Inventory; Winchester, CT: Project Manager and Client Liaison for a project to achieve compliance with the federally-mandated Lead Service Line Inventory and Lead and Copper Rules. Oversaw and coordinated field work to identify the materials used across the Town's service lines. Worked alongside a multidisciplinary team to develop the inventory of pipes utilizing ArcGIS software, and ensured the timely delivery of the inventory list to the Connecticut Department of Public Health.
- City of Albany Department of Water and Water Supply; Albany, NY: As Engineer Supervisor:
 - Oversaw the daily workload of staff of nine professionals in engineering, permit administration, GIS and recordkeeping, NYSDEC CSO/MS4 and DOH drinking water compliance
 - Led development of in-house design of construction documents related to stormwater, sanitary sewer, and water design utilizing design tools such as AutoCAD Civil 3D, SWMM5 modeling, and Storm and Sanitary Analysis. Particular focus on green infrastructure design to reduce on-street flooding and combined sewer overflows.
 - Implemented the capital plan, including coordination/oversight of work of engineering consultant feasibility, preliminary, and final design plans. This included the development of scope and oversight of payment applications and ensuring project goals were achieved.
 - Community and stakeholder coordination, outreach, and communication, including organization of meetings, public presentations, and development of community outreach materials and surveys
 - Project management and oversight related to design, bidding, and construction of capital projects, as well as construction management/inspection utilizing cloud-based project management tools
 - Reviewed site plans for the development of stormwater, sanitary sewer, and water reports in accordance with state and local regulations and the NYSDEC Stormwater Design Manual
 - Served as Project Manager/Owner's Representative for design and construction administration for daylighting of 1,8000 LF of Patroon Creek buried within Tivoli Preserve
 - Served as Project Manager/Lead Designer/Construction Manager for the complete street redesign of Ramsey Place to mitigate downstream flooding

Education

B.S., Civil Engineering; Syracuse University

Licenses/ Certifications

Professional Engineer: NY

H2M Project Management Training Program

Offices Held

NYWEA, Capital Chapter, Director and State Board Director

Memberships

New York Wastewater Environmental Association (NYWEA)

American Water Works Association (AWWA)



William F. Delnero P.E.

Assistant Vice President,
Department Manager - Water Resources



Mr. Delnero has more than 15 years experience as a water resources engineer, wastewater engineer, and civil engineer. His expertise includes lead service line replacements, water main design, emerging contaminants treatment plant design, storage tank inspections, wastewater pump station design, and storm hardening/resiliency design. In addition, Mr. Delnero has managed several design-build projects.

Selected project experience

- Township of Wayne Indian Hills Water Storage Tank Rehabilitation; Wayne, NJ: Project Manager for rehabilitation of the existing 1.5 million gallon Indian Hills steel ground storage tank. The design included complete exterior painting removal, new coating system, and miscellaneous hot work upgrade items. The interior included spot blasting and spot painting, minor repairs, and miscellaneous hot work.
- Veolia Lead Service Line Replacement Program; Bergen and Hudson Counties, NJ: Project Manager for the construction administration and construction observation of over 2,200 water service verifications and replacement of more than 1,200 lead service lines.
- Veolia Distribution System Improvement Charge (DSIC); Bergen and Hudson Counties, NJ: Project Manager for the construction inspection, observation and closeout documents, including as-builts, of several water main replacement projects in North Bergen, Tenafly, Fort Lee, Ridgefield Park, Weehawken, Englewood, Teaneck, Union City, and Mahwah.
- Veolia DSIC; Bergen and Hudson Counties, NJ: Project Manager for the construction inspection, observation and closeout documents, including as-builts, of several water main replacement projects for the DSIC 2020 contracts, including projects in North Bergen and Leonia.
- Plainview Water District AOP Treatment at Plant No. 3; Plainview, NY: Project Manager for the engineering design, permitting, and construction administration for construction of a new treatment plant to remove 1,4-dioxane from drinking water.
- Plainview Water District AOP Treatment at Plant No. 7; Plainview, NY: Project Manager for the engineering design, permitting, and construction administration for construction of a new treatment plant to remove 1,4-dioxane from drinking water.
- Township of Hillsborough Municipal Utilities Authority Blackwell's Mills Wastewater Pump Station Replacement, Hillsborough, NJ: Project Manager for the design of the replacement of an existing wastewater pump station.
- North Jersey District Water Supply Commission Stone Hill Contracting Co., Inc. - Residual Treatment Facility Upgrades Design-Build; Wanaque, NJ: Project Manager for the design and permitting of upgrades the existing water treatment residuals processing at the North Jersey District Water Supply Commission's Wanaque Treatment Plant. Treatment improvements for this design-build project included replacement of transfer pumps, rehabilitation of gravity thickeners, polymer system, and two new dissolved air floatation systems.
- SUEZ New York/J. Fletcher Creamer PFAS Compliance for Willow Tree Well No. 56 and Eckerson Well No. 82; Rockland County, NY: Project Manager for the design, permitting and construction administration of new GAC filtration system to treatment well sites. This effort was completed as a design-build project.
- American Water Military Services Group/Keystone Clearwater Solutions Picatinny Arsenal Emergency PFAS Treatment Design-Build; Wharton, NJ: Project Manager for the design, permitting and construction administration for the design-build of emergency PFAS treatment at the Picatinny Arsenal.
- American Water Military Services Group/Keystone Clearwater Solutions Picatinny Arsenal Rehabilitation of Lift Station 165 Design-Build; Wharton, NJ: Project Manager for the design and construction administration for the design-build rehabilitation of a wastewater pump station. This effort was completed as a design-build project.
- American Water Military Services Group Base Wide Storage Tank Inspections; West Point, NY: Project Manager for the inspections of nine ground storage tanks at the U.S. Military Academy West Point.

Next →

Education

B.S., Civil Engineering; Stevens Institute
of Technology

Licenses/ Certifications

Professional Engineer: NJ, NY

Memberships

American Water Works Association

William F. Delnero

P.E.

Assistant Vice President,
Department Manager -
Water Resources

- American Water Military Services Group Rehabilitation of Lift Station 302B; Wharton, NJ: Project Manager for the design and construction administration for the rehabilitation of a wastewater pump station at the Picatinny Arsenal.
- NYCDEP Green Infrastructure for Flushing Creek; Queens, NY: Project Manager responsible for project controls that included reviewing and managing the project schedule, managing deliverable submission, reviewing the resources allocated to complete a deliverable and managing the project budget. The project involved identifying potential sites, investigating, evaluating, and determining preliminary sites for green infrastructure within the New York City Department of Environmental Protection (NYCDEP) Priority Combined Sewer Overflows Tributary Area. The design team was responsible for performing the delineation of the Tributary Drainage Areas, developing ArcGIS files and maps, assisting with field investigations, and preparing preliminary location maps. Responsibilities also included management of a team of four engineers, attending monthly program meetings, and preparing the monthly reports.
- NYCDEP Wastewater Resiliency Program; New York, NY: Project Controls Manager for a project to implement flood hardening strategies for the DEP's infrastructure, to protect against future extreme weather events. Responsibilities included preparation of the program, Project Management Plan, Quality Management Plan, and Environmental Health and Safety Plan, managing project budgets, and managing all program controls and communications associated with the program, and the overall master schedule and individual contract schedules.
- NYCDEP Site-wide Flood Risk Assessment, Newtown Creek Wastewater Treatment Plant; Brooklyn, NY; Civil Engineer: Civil Engineer for the site-wide flood risk assessment of the NYCDEP's 310 MGD Newtown Creek Wastewater Treatment Plant (WWTP). Performed a flood risk analysis for the Newtown Creek WWTP, based on the updated 100-year FEMA Advisory Based Flood Elevation (ABFE) plus 32 inches. The project involved analyzing each building's potential flooding risk, based on the new flood elevation, and recommending adaptation strategies to minimize the potential impact of another significant storm event to minimize the plant's flood risk.
- NYCDEP Newtown Creek Waterfront Nature Walkway Phase 3; Brooklyn, NY: The Waterfront Nature Walkway created public access to a new shoreline park along Newtown Creek and Whale Creek canal in Brooklyn, NY. This space provides an important area for relaxation and recreation for the people of Greenpoint. The intent was to revitalize a neglected and under utilized waterfront site. Project included sustainable design elements such as surface and subsurface drainage and infiltration systems to capture and harvest the rainwater within the nature walk and provision of photovoltaic system. Responsibilities included the civil design of the Phase 3 extension of the Newtown Creek, WWTP Nature Walkway; including the development of a surface and subsurface drainage system, the extension of underground utilities, and assistance with the preparation of final project documents.





Andrew M. Manfredi P.E.

Senior Associate, Discipline Engineer - Water Resources



Mr. Manfredi's responsibilities include preparing engineering reports, specifications, and design plans for the purpose of regulatory approval and bidding public works projects. His experience encompasses the following: optimal corrosion control evaluation, advanced oxidation process, granular activated carbon, and packed tower aeration treatment technologies. Currently, his relevant project experience includes consumer outreach, sampling, notification, and service line identification with the Village of Garden City. Mr. Manfredi has also performed multiple pilot studies on various AOP treatment technologies as well as start-up full-scale UV/H2O2 AOP systems to confirm performance. He has also presented on various AOP subject matters at New York State AWWA, New Jersey AWWA, and national AWWA conferences. Other project experience includes rehabilitation and construction of existing and new elevated water storage tanks. Mr. Manfredi also specializes in BIM software and applications including 3D laser scanning and modeling.

Selected project experience

- Bethpage Water District Interim AOP Treatment at Plant No. 6; Bethpage, NY: In-house design of a 2.0 MGD ground water supply station utilizing a low pressure UV/H2O2 AOP system, development of engineering report, research of best design practices with the new technology, accurate scanning of existing conditions, three dimensional modeling of new mechanical equipment systems within the existing building footprint, commissioning, start up, water quality sampling/review of the new system, and regulatory approval by the New York State Department of Health.
- Various Water Districts Low Pressure UV/H2O2 AOP Pilot Studies: In-house design of (40) 20 GPM small scale pilot studies utilizing low pressure UV/H2O2 AOP treatment as required by the New York State Department of Health for all new AOP treatment systems. Pilot study included the review of background water quality, creation of a sampling protocol and testing matrix for submission to the State and local departments of health, in-field analytical testing, and analysis of laboratory and field testing results for a final report to submit to the regulatory agencies with the engineering report. Water suppliers that were tested as part of this pilot program included: South Huntington, Water Authority of Western Nassau County, Water Authority of Great Neck North, Franklin Square, Bethpage, Plainview, Hicksville, Inc. Village of Garden City, Town of Hempstead, Manhasset-Lakeville, Garden City Park, South Farmingdale, and Roslyn.
- Inc. Village of Garden City Optimal Corrosion Control Treatment Report: In-house engineering report that reviewed regulatory requirements and water quality data (specifically, alkalinity, pH, dissolved inorganic carbon, hardness, buffer intensity, dissolved oxygen, oxidation-reduction potential, chloride, and sulfate) for evaluation of alternative corrosion control methods to control the release of lead and copper into drinking water for submission to local regulatory agency. Other areas of the project include: mass-sampling program for lead in specific areas of the Village, distribution system water quality testing, public notification to affected residents, service line identification record review, and consumer outreach.
- Franklin Square Water District AOP/PTA Treatment at Theodora Street Plant: In-house design of permanent advanced oxidation process and packed tower aeration 4.0 MGD ground water supply station for the purpose of publicly bidding multiple Wick's Law compliant contracts. Work also included development of engineering report for review/approval by Nassau County Department of Health and 348 plan submission to NYSDOH and NCDH agencies for review/approval. Project included provisions to keep one well running to maintain water supply throughout the District and phased construction and start-up of individual systems to meet District's water pumping needs.
- Plainview Water District Medium Pressure UV/H2O2 AOP Pilot Study at Plant No. 3; Plainview, NY: In-house design of a 40 GPM pilot study utilizing medium-pressure UV/H2O2 and UV/CL2 AOP treatment. Pilot study included the review of background water quality, creation of a sampling protocol and testing matrix for evaluation of the treatment technology and feasibility for the Water District.

Education

B.S., Chemical Engineering;
Manhattan College

Licenses/ Certifications

Professional Engineer: NY
Project Management Training Program, H2M

Next →

Andrew M. Manfredi

P.E.

Senior Associate, Discipline
Engineer - Water Resources

- Bethpage Water District VOC Treatment Upgrades at Plant No. 6; Bethpage, NY: In-house design of a 4.0 MGD VOC treatment facility utilizing packed tower aeration (with vapor-phase carbon air discharge treatment system), a low-pressure UV/H₂O₂ AOP treatment system, and granular activated carbon for the treatment of 1,4-dioxane and other VOCs. Design included preparation of an engineering report, three-dimensional modeling of new building with requisite architectural, structural, treatment, mechanical, and electrical systems, model walk-throughs with design team and client for review prior to bidding and construction, submission for regulatory approval, project analysis and creation of design documents for the purpose of publicly bidding the project. This project is currently under construction.
- West Hempstead Water District Replacement of Birch Street Elevated Water Storage Tank; West Hempstead, NY: In-house design of a 1.0 MGD composite elevated storage tank for potable water. Design included preparation of an engineering report comparing traditional tank styles and life-cycle costs, creation of bidding design documents for public bidding, construction administration and inspection of the project during construction, start-up and commissioning of the new tank as well as regulatory approval.



Jordan T. Alexander E.I.T.

Staff Engineer - Wastewater Engineering



Mr. Alexander is a staff engineer with experience in clean water, wastewater, and stormwater projects. His experience includes design for gravity collection systems and low-pressure sewer collection systems, and construction administration and construction observation for clean water mains and water pumping stations.

Selected project experience

- Aquarion Water Company Peaceable Ridge Replacement Water Main; Ridgefield, CT: Acted field engineer during 12" water main and water service installation and existing 8" water main abandonment. Compiled data for as-built drawings
- Aquarion Water Company Eleven Levels Replacement Water Pumping Station Ridgefield, CT: Acted as field engineer during construction and startup of the pumping station and compiled data for as-built drawings.
- Aquarion Water Company Pastors Walk Replacement Water Pumping Station; Monroe, CT: Acted as field engineer during construction of pumping station.
- Aquarion Water Company Tunxis Hill Replacement Water Pumping Station; Fairfield, CT: Acted as field engineer during renovation of an existing home into a water pumping station and compiled data for as-built drawings.
- Aquarion Water Company Bargh Raw Water Pipeline: Acted as field engineer during pipeline installation.
- Connecticut Department of Energy and Environmental Protection (DEEP): Received data from a dam inspector and generated dam inspection reports.
- Suffolk County Department of Public Works: Assisted in production sheets and verified pipe sizing and flow parameters.
- Putnam County Danbury Diversion Project; Putnam County, NY: Responsible for designing alternative analysis for diversion of a collection system to an existing sewer treatment plant.
- Town of Mamaroneck; Mamaroneck, NY: Responsible for analysis watersheds in the project area and conducting stormwater analysis in HydroCAD.

Education

B.S., Environmental Engineering,
Minors in Chemistry and Water Resources;
Pennsylvania State University

Licenses/ Certifications

Engineer-in-Training: CT
OSHA 10-Hour Construction Safety & Health

Memberships

Water Environment Association
Connecticut Water Environment
Association

Max B. Grabinski P.E.

Project Engineer - Water Resources



As a Project Engineer, Mr. Grabinski's responsibilities include preparing specifications and design plans for the purpose of regulatory agency review and bidding of public works water projects, and assisting with construction administration of water supply, treatment, distribution, and storage projects.

Selected project experience

- NYS Center for Clean Water Technology Piloting for 1,4-dioxane Removal at Plainview Water District Plant No. 7 and Greenlawn Water District Plant No. 12: Assisted in proposal writing for the New York State Center for Clean Water Technology grant to investigate advanced oxidation process (AOP) treatment systems for the removal of 1,4-dioxane. A grant was awarded to the team consisting of the Plainview and Greenlawn Water Districts. Coordinated piloting of two UV/AOP treatment system technologies at two separate water supply sites. Piloting including creating a pilot sampling plan, coordination with manufacturers of the technology for delivery of the pilot equipment, operation of the reactors, and taking samples and field measurements during testing. Prepared four individual pilot reports for each treatment system at each test site for use by the both water districts in planning for full scale treatment, as well as by the Center for Clean Water Technology for their 1,4-dioxane removal research.
- Water Authority of Western Nassau County Wellhead Treatment for Station No. 35; Floral Park, NY: The Water Authority of Western Nassau County's potable water supply Well No. 35A was impacted by the emerging contaminants 1,4-dioxane, PFOA and PFOS. Packed tower aeration was already in use at this well site for removal of volatile organic compound (VOC) contamination in the source water, and the Water Authority authorized the design of additional treatment to remove the emerging contaminants listed above. Prepared the detailed engineering design report for the new treatment system, which included UV/H2O2 AOP and granular activated carbon (GAC). Prepared design plans and specifications for the emergency installation of new treatment equipment, including the UV/H2O2 AOP reactor, associated hydrogen peroxide storage tank and equipment, and four 40,000-lb GAC vessels. Design also included site piping modifications and permanent building to enclose GAC vessels. Plans and specifications were submitted to the state and local health departments for approval.
- Water Authority of Western Nassau County Wellhead Treatment for Station 57; New Hyde Park, NY: Assisted with the preparation of an engineering report for the UV/AOP pilot system for removal of 1,4-Dioxane at Station 57. Assisted in running of pilot, including calibration tests and sampling, as well as preparation of the pilot report upon completion of testing for submission to the New York State Department of Health and Nassau County Department of Health. Subsequently assisted in the preparation of the detailed engineering report for full-scale implementation of new treatment equipment. Prepared design plans and specifications for permanent treatment at Station 57, including rehabilitation of existing wells, new full scale UV/AOP treatment system, including UV reactors and associated H2O2 storage and dosing equipment, and four 40,000-lb GAC vessels. Design also included a new 12-foot diameter air stripping tower to replace the existing tower, and concrete clearwell with new booster pumps to send water to system. Total dynamic head calculations were performed for both the well pumps and new booster pumps. Two new treatment buildings were designed to house the new treatment systems. Design approval was obtained from the state and local health departments. Provided construction administration services for construction of the new facilities.
- Water Authority of Western Nassau County Wellhead Treatment for Station No. 44; Elmont, NY: The Water Authority of Western Nassau County authorized the design and construction of emergency treatment for the removal of the emerging contaminants PFOA and PFOS from the four drinking water supply wells at their Station No. 44. Prepared emergency design plans and specifications for the installation of eight 40,000-lb granular activated carbon (GAC) vessels to remove the contamination from the wells. The new treatment equipment was designed to be incorporated into the existing treatment processes at the facility. Performed flow tests to determine the specific capacity of the existing wells and determine if they were sized adequately to handle the added head loss from the new treatment equipment. Received design approval from the state and local health departments, and provided construction administration duties to see construction through to completion. Performed water quality sampling and received completed works approval from the state and local health departments.

Education

M.S., Civil Engineering; Stony Brook University

B.S., Civil Engineering; University of Rhode Island

B.A., Spanish; University of Rhode Island

Licenses/ Certifications

Professional Engineer: NY, CT, RI

Memberships

American Water Works Association

Long Island Water Council

Tau Beta Pi

Chi Epsilon

Phi Beta Kappa

Presentations

Connecticut Section AWWA – Emergency PFAS Treatment and Infrastructure Upgrades at Station No. 44

New York Section AWWA – Advanced Oxidation Process: On-Site Pilot System for Removal of 1,4-Dioxane, 2019

Next →

Max B. Grabinski

P.E.

Project Engineer - Water Resources

- Hicksville Water District Emerging Contaminant Removal at Plant No. 5; Hicksville, NY: The Hicksville Water District authorized the design for emergency water treatment to remove the emerging contaminants 1,4-dioxane, PFOA, and PFOS impacting the public water supply wells at their Plant No. 5. These wells, which already received treatment for VOCs via packed tower aeration, required additional treatment to remove the emerging contaminants noted above. Assisted in the preparation of the engineering report which included the design of the UV/H₂O₂ AOP and GAC treatment systems to be incorporated into the existing treatment processes of the plant. Prepared emergency plans and specifications to install the treatment equipment, including two AOP reactors and four 40,000-lb GAC vessels. Design also included upgrades to the existing clearwell transfer pumps and modifications to the site piping. Total dynamic head calculations were performed to determine the necessary size of the new transfer pumps. Design incorporated planning for a future building to be constructed around the new treatment equipment. Plans and specifications were submitted to the state and local health departments for approval.
- Incorporated Village of Garden City Advanced Oxidation Pilot Study at Clinton Road; Garden City, New York: The Incorporated Village of Garden City authorized the piloting of an ultraviolet-titanium dioxide (UV/ TiO₂) AOP treatment system at their Clinton Road drinking water supply site to investigate alternative 1,4-dioxane removal methods. Prepared a pilot protocol outlining the equipment to be used and the sampling matrix to be followed in the pilot program. Coordinated with the equipment manufacturer for delivery and operation of the pilot equipment, and performed sampling throughout the pilot testing. Prepared a full pilot report upon completion of sampling that analyzed the results of the pilot program, determined sizing and cost estimates for full scale implementation of this treatment technology, and ultimately made recommendations to the Village.
- New York State Office of Parks, Recreation and Historic Preservation Water Treatment Plant Upgrade at Captree State Park: The New York State Office of Parks, Recreation and Historic Preservation operates a water supply facility in Captree State Park which includes two groundwater wells, as well as sand and anthracite filtration vessels for iron removal. Assisted in the preparation of design plans and specifications for the construction of a new treatment building to replace the existing. Design included replacement of the existing iron treatment system with new greensand treatment vessels. Rehabilitation of the existing well pumps was included, as well as a new chemical treatment system to replace the existing, including new storage tanks and dosing pumps. To ensure sufficient pressure in the distribution system, a concrete clearwell and packaged hydropneumatic tank and booster pump system was also designed. Approval of the design for the treatment plant upgrade was obtained from the Suffolk County Department of Health Services.
- Town of Hempstead Jerusalem Avenue Distribution Improvements; Uniondale, NY: Replacement of a 10-inch water main along Jerusalem Avenue was required. Assisted in the development of plans and specifications for the replacement of the water main and installation of new appurtenances. Prepared documents for regulatory review and obtained freshwater wetlands crossing permit from NYS Department of Environmental Conservation.
- Hampton Bays Water District Upgrade of Peconic Road Emergency Interconnection; Hampton Bays, NY: The Hampton Bays Water District maintains an existing emergency interconnection with a neighboring water supplier at the intersection of Montauk Highway and Peconic Road in Hampton Bays, New York. The Water District wanted to upgrade this interconnection with a new hydraulic control valve and water meter vault. Performed topographical survey of the project location to determine optimal location for the new vault. Designed the new precast concrete vault to be installed, and new water main and valves to connect to the existing water main. Technical plans and specifications were prepared, and approval received from the Suffolk County Department of Health Services.
- Riverhead Water District Wellbridge Care Center; Calverton, NY: To service the new Wellbridge Care Center development, the installation of 7,500 linear feet of new 12-inch water main was required. Assisted in the development of plans and specifications for the installation of the new water main and appurtenances, including coordination with the developer. Prepared documents for regulatory review and performed construction administration duties.
- Manhasset-Lakeville Water District Campbell Station Upgrades; Manhasset, NY: Upgrades to Campbell Station were required to reactivate an existing ground storage tank due to the increased demand of a new development. Assisted in the development of plans and specifications, including installation of a new high zone transfer pump, new booster pumps, and site piping. Performed total dynamic head pump calculations and prepared documents for regulatory review.
- Hicksville Water District Replacement of Well Pumps and Boosters at Plant No. 5; Hicksville, NY: Upgrades to Plant No. 5 included replacement of two well pumps, replacement of booster pumps, and construction of a precast wellhouse. Assisted in the development of plans and specifications for this work and preparation of documents for regulatory review, and performed construction administration duties.





Lawrence F. Loesch P.E.

Project Engineer - Wastewater Engineering



Mr. Loesch is a project engineer with experience in wastewater and civil engineering. His expertise includes zoning due diligence, conceptual and site designs, utility routing design, sanitary system design and profiles, sanitary density and structure sizing calculations, grading and stormwater management calculations, cut/fill analysis, water service and backflow prevention design, design of construction details, and coordination with consultants of other disciplines. Mr. Loesch is proficient in AutoCAD, GIS, Revit, AGI32 Lighting Photometrics, AutoTurn, and ITE Trip Generation.

Selected project experience

- Dutchess County Water and Wastewater Authority (DCWWA) Tertiary Filter and Disinfection Evaluation; Beekman, NY: Wastewater Engineer for the evaluation of the existing tertiary rapid sand filter and UV disinfection systems at the Dalton Farms Wastewater Treatment Plant (WWTP). Both systems were non-operational due to a series of equipment failures. The team provided an engineering design report with proposed alternatives; the DCWWA selected to replace the systems with ones that aligned with their long-term goals, including sustainability, efficiency, cost effectiveness, and regulatory compliance.
- Albany County Sheriff's Office 911 EOC Facility Sand Filter Design; Clarksville NY: Utilized New York State Department of Environmental Conservation (NYSDEC) 2014 standards to design the project flow for a proposed 911 call center and office buildings. Conducted field visits to investigate and analyze the existing sanitary infrastructure to determine the salvage ability of the current components. Prepared an engineering report for the proposed facility upgrades and the necessary system changes as per NYSDEC standards. Drafted construction plans for a new sanitary system, including two low-pressure force mains, three gravity outfalls, and two buried sand filter systems. The design of the sand filters included computer-aided drafting for pipe routing and profiles, hydraulic calculations for both pipes and filter media, and long-term organic loading of filter material. Also prepared wetland maps, soil surveys, and vicinity maps to assist the NYSDEC in the permit modification process.
- Prestige Properties and Development Co. DSW Plaza Existing Treatment Plant Evaluation; Lake Grove, NY: Completed an existing sewage treatment plant evaluation. Conducted a site visit to verify existing field conditions. Reviewed record document information provided by the owner to evaluate original design parameters. Confirmed existing capacity limitations within the sewage treatment plant and identified necessary improvements to expand the capacity to accommodate the proposed future flow increase. In addition, identified recommended improvements to optimize operations. All upgrades were value engineered to provide the low-cost alternative to provide the additional capacity. The evaluation of required and recommended improvements was based on the latest standards set forth by Suffolk County Department of Health Services (SCDHS), Suffolk County Department of Public Works (SCDPW), NYSDEC, and the Recommended Standards for Wastewater Facilities of the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers 2014 Edition (Ten State Standards).
- Steel Equities Medical Office Building Sanitary Flow Analysis; Lake Grove, NY: Prepared a sewage strength and flow analysis for the SCDHS using the standards outlined in General Guidance Memorandum #26. The analysis included collecting three years' worth of water bill data to present the average daily flow information for the existing treatment plant. In conjunction with their water consumption records, scientific evaluations of analysis of samples collected from their facilities to ensure nitrogen loading did not exceed the permit.
- Village of Patchogue Sewer Connection Map and Plans; Patchogue, NY: Prepared Map and Plan reports to allow in and out of District connections to the Brookhaven Sewer Improvement Area No. 1. These reports verified the design flow calculation for private developments looking to connect to the Town-provided sanitary infrastructure and ensured sanitary flow determinations met all local requirements and could be accommodated by the existing town infrastructure. Also included procedures in the reports for the property connection and the application, inspection, and hook-up fees associated with the project.
- Various Clients Industrial Sewer Connections; Suffolk County, NY: Prepared plans and engineering reports for industrial properties to discharge to municipal sewers. Existing process waste was stored in a tank on-site and hauled off to a scavenger plant at the client's cost. The design allowed the client to connect the facility's process water to the municipal sewer district via a gravity sewer connecting to an existing manhole in the roadway adjacent to the subject property.

Next →

Education

B.S., Civil Engineering; Syracuse University

Licenses/ Certifications

Professional Engineer: NY

NYSDEC Erosion & Sediment Control
Training

PSEG Substation Awareness

Awards

NYREJ Ones to Watch (2020)

Lawrence F. Loesch P.E.

Project Engineer -
Wastewater Engineering

- Town of Huntington Sewer District Sewer Installation Inspections; Huntington, NY: Conducted sewer inspections on behalf of the Town to assure contractor was meeting local ordinances. Inspections included force main pressure testing, backfilling inspections, and sewer main taps via existing manholes and new doghouse manholes. Additionally, reviewed and analyzed sewer mains' cleaning and video inspection to prepare reports advising of recommended rehabilitation and maintenance.
- Various Clients Sanitary System Design; Various Locations, NY: Design in accordance with local sanitary codes and regulations; infiltration rate of soils (based on review of boring logs and geotechnical report); and prepare profiles of system to depict adequate pipe clearance in horizontal and vertical directions, sizing of grease trap, leaching structures, and other components of the system, anti-floatation (buoyancy) calculations in high groundwater areas
- Various Clients Stormwater Management; Various Locations, NY: Design of on-site detention or retention and connection to municipal systems. Projects include retention system design with hydraulic calculations for orifice design and controlled release structures; structure storage capacity calculations; leaching chamber system design; and time of concentration calculations, pipe sizing calculations.
- Various Clients Site Layout Design; Various Locations, NY: Prepare parking layout, drive aisles, site access, and truck routing based on local zoning codes, ADA, and NYS/NYC Building Codes. Additionally, grading design such as design of ponding areas and pond storage volume, preparation of roadway profiles and computations, and pedestrian walkways and ramps as per local and ADA standards.
- Various Clients Petroleum Storage and Facility Design; Various Locations, NY: Design of underground and aboveground storage tank design in compliance with NFPA, NYSDEC, EPA, Fire Code, Health Department, and local requirements. Design includes dispenser layout, routing and location of underground piping, underground sumps, underground tank anchoring, double containment, submersible and lift pumps, fire suppression as well as other details.





Drew A. Fedele E.I.T.

Staff Engineer - Wastewater Engineering



Mr. Fedele is a staff engineer with experience in engineering design and construction administration for sanitary wastewater projects. His experience includes gravity sewer collection systems, low pressure sewer collection systems, and pumping stations. Mr. Fedele is proficient in AutoCAD and Revit.

Selected project experience

- Steel Equities Medical Suite Pump Station Design; Lake Grove, NY: Assisted in the design of a sanitary pump station and force main to connect a new medical suite in the former Sears department store to the existing Smith Haven Mall wastewater treatment plant.
- Dutchess County Water and Wastewater Authority (DCWWA) Tertiary Filter and Disinfection Evaluation; Beekman, NY: Assisted in the evaluation of the existing tertiary rapid sand filter and UV disinfection systems at the Dalton Farms Wastewater Treatment Plant. Both systems were non-operational due to a series of equipment failures. H2M prepared an engineering design report with proposed alternatives; the DCWWA selected to replace the systems with ones that aligned with their long-term goals, including sustainability, efficiency, cost effectiveness, and regulatory compliance.
- Rhinebeck Villas Wastewater Due Diligence and Permitting; Rhinebeck, NY: Assisted in the preliminary design for a wastewater collection, treatment system, and permitting for the Rhinebeck Villas, located in Dutchess County, NY.
- Liberty Park, LLC Proposed Soccer Stadium; Albany, NY: Due diligence services, including a preliminary utility engineering investigation and planning services, associated with the development of a site for a proposed new 8,000-seat soccer stadium within the City of Albany.

Education

B.S., Environmental and Sustainable Engineering Specialization; SUNY Albany

Licenses/ Certifications

Engineer-in-Training: NY

Memberships

New York Water Environment Association



Roger C. Sokol Ph.D.

Practice Leader/Chief Water Resources Engineer



Dr. Sokol brings nearly 25 years of experience in addressing environmental public health issues utilizing the latest scientific research, evidence-based programs, and regulations to reduce environmental health risks. He has had more than 30 peer reviewed articles published in scientific journals, including Environmental Science and Technology, Environmental Toxicology and Chemistry, Chemosphere, Journal of Phycology, Aquatic Botany, and Plant Physiology. In addition to his experience at the New York State Department of Health, Dr. Sokol served as an assistant professor in the Department of Environmental Health Science at SUNY Albany for more than 15 years.

Selected project experience

- New York State Department of Health; Albany, NY: As Deputy Director of the Center for Environmental Health, assisted in providing executive direction to 400 professional staff and the environmental health programs they implemented. Worked closely with regional offices, nine district offices, and the environmental health directors of 36 county health departments, and the New York City Department of Health and Mental Hygiene (NYCDOHMH), to provide oversight and direction on their delivery of environmental health services. Served as the Health Commissioner designee to the Board of Directors of the New York State Environmental Facilities Corporation (NYSEFC).
- New York State Department of Health; Albany, NY: As Director of the Division of Environmental Health Protection, oversaw the operation of three regulatory bureaus that implemented and enforced environmental health regulatory programs relating to drinking water quality, food safety in restaurants, beach and swimming pool safety, children's camps, radiation protection, lead poisoning prevention, migrant farm worker housing, indoor tanning, and exposure to tobacco smoke. Served as a Governor appointee on the New York State Drinking Water Quality Council (DWQC), providing recommendations for the development of regulations for emerging contaminants in drinking water.
- New York State Department of Health; Albany, NY: As Director of the Bureau of Water Supply Protection, served as the State drinking water administrator responsible for overseeing the implementation of the federal Public Water Supply Supervision (PWSS) program and Drinking Water State Revolving Fund (DWSRF). Developed and implemented first in the nation regulatory programs for Lead Testing in School Drinking Water and Protection Against Legionella. Served as a Board Member of the Association of State Drinking Water Administrators (ASDWA).

Education

Ph.D., Biology; SUNY Albany

B.S., Biology; SUNY Albany



Paul J. Ponturo P.E.

Senior Water Resources Engineer



As Senior Water Resources Engineer, Mr. Ponturo has been focusing on a number of regulatory and compliance issues relating to public water supplies, emerging contaminant review and monitoring program design. He is also currently involved in H2M's efforts in expanding education and outreach opportunities to water supply professional operational and planning staff.

Prior to H2M in 2008, Mr. Ponturo was the Chief of the Office of Water Resources, of the Suffolk County Department of Health Services' Division of Environmental Quality, where he served as a Public Health Engineer since 1972. The Office of Water Resources develops and enforces drinking water regulations controlling Suffolk's 400 community and non-community public water supplies, and monitor the drinking water supply as well as the quality and quantity of the groundwater resource, conducting surveys and investigations of the county's hydrogeology, participating in special studies, Suffolk's Comprehensive Water Resource Management Plan, and providing necessary technical assistance in activities to categorize the critical land use activities which effect the watershed areas of the county's public supply well sources in the completion of Source Water Assessment Program for Long Island. In addition to public and private wells sampled in the course of these activities, the Department's water resource monitoring is enhanced via an extensive network of monitoring wells and stream sampling points and test wells installed to track groundwater remediation and groundwater resource studies. As Chief, he supervised a staff of 34 engineers, hydrogeologists, sanitarians, well drillers and office support personnel. He provided training opportunities to public water supply professional staff on a wide variety of relevant issues including water supply regulations, facility requirements, water quality findings, emerging contaminants, safety, emergency planning and water resource planning.

Mr. Ponturo has been an instructor in a New York State-approved Grade IIB Water Treatment plant Operator Certification course, lecturing on the subjects of well construction, water supply disinfection, cross-connection control and regulatory requirements. He has also been a guest lecturer at Stony Brook University and Southampton College, providing students in environmental studies programs with presentations on diverse water supply and water resource topics.

For over 30 years, Mr. Ponturo has participated as a member and Vice-Chair of his Town Conservation Board in Huntington. Among other planning and site review efforts, the Board engaged in one of the first Household Hazardous Waste collection events, actively participating as a support volunteer. These initial demonstration efforts led to the Town establishment of a permanent STOP (Stop Throwing Out Pollutants) facility at the Town Recycling Center.

In 2020-2022, he served as Water Quality Technical Advisor to a team of diverse engineering, planning, and GIS consultants working with municipal and civic stakeholders in developing a series of next generation Drinking Water Source Protection Plans (DWSP2). Building on concepts for Source Water Assessment, as authorized under the Safe Drinking Water Act, the new DWSP2 "is a locally led, state-supported program that empowers municipalities to take action to improve and protect their public water sources and surrounding environment." Working with diverse stakeholders, the technical service providers helped several participating communities develop and implement their unique Drinking Water Source Protection Programs, with actionable steps to protect their drinking water sources now and into the future.

More recently, he authored the Long Island Commission for Aquifer Protection's (LICAP) Groundwater Resource Management Plan chapter on Existing Regulations and Management Regime and contributed to expanded LICAP Plan Task Reports on Private Wells, Wastewater Management and Regional Contamination Threats. This Plan built upon prior strategic water resource management planning initiatives in Suffolk County and his contributions to those efforts.

Education

M.S., Civil Engineering;
Polytechnic University

B.S., Civil Engineering; Lehigh University

Licenses/ Certifications

Professional Engineer: NY

Memberships

American Water Works Association

Long Island Water Conference

New York State Society of
Professional Engineers

Westchester Water Works Conference

Offices Held

American Water Works Association New
York Section; Chair 2020

Awards

NYS AWWA John M. Diven, Jr. Award

NYS AWWA George Warren Fuller Award

Articles/Papers

NYSAWWA: Waterborne Disease and
Legionella 1/20, Sanitary Surveys 3/19, Lead
and Copper Rule After Flint, 3/17, UCMR3
Early Results 2/15, Customer Complaints
8/14, Distribution System Monitoring 7/13,
Hexavalent Chromium What You Need to
Know 9/12, Total Coliform Rule Revision
9/11, Monitoring Program Design Basics
8/11, SDWA and the Standard Setting
Process 4/10, Utilizing Indicator Organisms
3/09.

Next →

Paul J. Ponturo

P.E.

Senior Water Resources Engineer

NSWCA: Emerging Contaminants, UCMR3 and UCMR4 6/19.

LIWC Symposium: 1,4-Dioxane- NYS, LI, Nationwide data Occurrences 3/17
Pharmaceuticals and Personal Care Products, Suffolk County Water Resources Management Plan Program, 6/18/08.
Groundwater Rule and SWAP, LIWC Education Workshop, 3/20/08.

Water Quality & Food Processing, LI Food Technology, 6/07.

Regulatory Update, LIWC Education Workshop, 2007, 2004, 2003, 1999.

Water Distribution System O&M Workshop, NYSAWWA Training Course, 1/10/06.

Maintaining Water Quality in the Distribution System, NYSAWWA Training Course, 12/1/04.

UCMR Contaminant Occurrence, LIWC Education Workshop, 10/04.

Operator Certification Issues, LIWC Education Workshop, 11/03.

Emergency Plans and Vulnerability Assessments, NYS Rural Water Association, 10/30/03.

Emerging Water Supply Issues, NYS Water Authorities, Annual Conference, 8/6/03.
Federal/State Drinking Water Protection Efforts, VEEP Training, 6/26/03.

Emerging Groundwater Contaminants, SUNY LI Groundwater Symposium, 6/6/03.

SWAP Program Status, Nassau/Suffolk Water Commissioners Association, 4/12/03.

Groundwater Quality, Southampton College Community Water Supply Forum, 3/26/03.

Articles/Papers

- Water Distribution System O&M Workshop, NYSAWWA Training Course, 1/10/06.
- Maintaining Water Quality in the Distribution System, NYSAWWA Training Course, 12/1/04.
- UCMR Contaminant Occurrence, LIWC Education Workshop, 10/04.
- Operator Certification Issues, LIWC Education Workshop, 11/03.
- Emergency Plans and Vulnerability Assessments, NYS Rural Water Association, 10/30/03.
- Emerging Water Supply Issues, NYS Water Authorities, Annual Conference, 8/6/03.
- Federal/State Drinking Water Protection Efforts, VEEP Training, 6/26/03.
- Emerging Groundwater Contaminants, SUNY LI Groundwater Symposium, 6/6/03.
- SWAP Program Status, Nassau/Suffolk Water Commissioners Association, 4/12/03.
- Groundwater Quality, Southampton College Community Water Supply Forum, 3/26/03.
- Groundwater Contamination Emerging Issues, Suffolk County Legislature Testimony, 8/14/02.
- Coliform Rule Issues, LIWC Education Workshop, 4/13/02.
- Private Well Surveys Near Landfills, Easthampton Town Board Presentation, 3/18/02
- Cross Connection Control Program and Backflow Investigations, SCDOH Staff Training Presentation, 3/16/07.
- Coliform Rule Monitoring & Sample Collection, LIWC Education Workshop, 12/06.
- Groundwater Quality, SUNY Stony Brook Environmental Issues Course (Guest lecturer), 12/6/01, 11/18/04, 12/7/06.
- Groundwater Rule, NYSAWWA Tift Symposium, 11/15/06.
- Distribution System Monitoring, NYSAWWA Training, 10/06.
- Water Treatment Plant Operator Certification Program, New Regulations, LIWC, 2/13/01.
- MTBE and L.I. Drinking Water Supplies, Southampton College Supply Forum, 4/01.
- Perchlorate Occurrence in Suffolk County, NYSAWWA Tift Symposium, 11/14/00.
- Groundwater Rule, NYSAWWA Fall Meeting, 10/12/00.
- Coliform and Groundwater Rule Issues, Nassau/Suffolk Water Commissioners Assoc., 12/15/97.
- Cross Connection Control Program and Principles, NYSAWWA Tift Symposium, 10/29/97.
- Groundwater Problems and Supply, NYS Assoc. of Conservation Commissions, Annual Meeting, 4/97.



Christopher M. Kobos PMP, GISP

Associate, Director of GIS Services



Mr. Kobos is a GIS professional with more than 20 years of experience providing technical guidance and project management for municipal and private sector GIS technology projects. In his role, he offers technical direction to a group of GIS analysts and specialists and is responsible for the continuous development and maintenance of technical competencies with industry-standard GIS software, cloud platforms, and the software required for successful GIS solution delivery. Additionally, Mr. Kobos communicates directly with clients and coordinates with the H2M corporate division and market leaders with the goal of integrating GIS practices and techniques into the primary technical functions of the firm. His extensive experience serving private clients and all levels of municipal government, lends itself to a unique perspective on the client business needs and the most appropriate procedures for delivering high quality, effective consulting products and services. In his role, Mr. Kobos also manages the firm's corporate business partnership with global GIS market leader, Esri.

Selected project experience

- Town of Hempstead Water Department Lead Service Line Inventory; Hempstead, NY: Managed the GIS data development team responsible for compiling, reviewing, and integrating external data and historic records for more than 130,000 residents into an interactive GIS database. This involved using manual and programmatic research methods to review 100,000 print tap card records and 150,000 digital records from more than 6,000 residential addresses. Partnered with Esri to deploy an Enterprise software solution on AWS to support this project, and to facilitate Town-wide GIS efforts in the future.
- Incorporated Village of Garden City Lead Service Line Inventory; Garden City, NY: Manages the GIS database development in support of the Village's inventory. Coordinates with Village staff to obtain, track, and manage thousands of Village records to be reviewed for water line material information. Leads a team of H2M staff who review and catalogue each unique record, storing critical information within a custom GIS environment, specifically designed to ensure complete transparency with the Village and the public. Manages the creation of GIS-based maps, dashboards, and mobile apps for Village use. The results of the Village-wide inventory will inform the Village's lead service line replacement program and capital budgeting.
- Incorporated Village of Sands Point Lead Service Line Inventory; Sands Point, NY: Leads efforts to map and identify any of the Village's water service lines that may contain lead materials. Using information provided by the Village, oversees creation of database to store information related to service pipe material, material status, and material source. This database is modeled after New York State Department of Health (NYSDOH) guidelines and USEPA regulations; and identified possible lead service lines.
- Riverhead Water District GIS Integration; Riverhead, NY: Project Manager for the District's GIS integration and mobile access project. H2M evaluated, digitized, and linked the District's existing Record Plans and as-builts to its revised GIS schematic. The GIS distribution system map and associated images were then migrated to the ArcGIS Online cloud to enable mobile access. ArcGIS Online has extended the reach of the District's GIS map to all personnel, both in the office and in the field. The ArcGIS Online map contains all desktop layers, including water mains, valves, fire hydrants, and plant sites. Nearly 1,000 scanned records were attached to the GIS data. The attached features allow District personnel to instantly access and view documents and plans in the field, even when disconnected from the District's network. Utilizing Esri's Collector app on mobile devices, District personnel can maintain hydrant flushing, hydrant maintenance, and valve maintenance logs in the field. District personnel can populate data and attach pictures in the field, available to office personnel upon synchronization.

Education

B.A., Environmental Geography;
Colgate University

Licenses/ Certifications

Project Management Professional

Certified Geographic Information System
Professional, GIS Certification Institute

ArcGIS I Authorized Trainer

Memberships

Long Island GIS

Project Management Institute

GIS Certification Institute

Publications

"GIS May Be Key To The Future Of Emergency
Response", Firehouse Magazine, 2021

"Communicate with the Public Using GIS",
Talk of the Towns & Topics, March/April 2024

"Using GIS to Site Fire Stations and Improve
Incident Response Times", Firehouse
Magazine, 2025

Next →

Christopher M. Kobos

PMP, GISP

Associate, Director of GIS Services

- Jefferson Township Global Navigation Satellite System (GNSS) Field Data Collection; Jefferson, NJ: Project Manager responsible for managing all aspects of the large-scale GNSS data collection project, including client coordination, resource allocation, budgeting, quality, and overall client satisfaction. When complete, the project will deliver nearly 5,000 GNSS field-collected surface structures related to the Township's sanitary, storm sewer, and water distribution systems.
- Incorporated Village of Garden City GIS Program Management; Garden City, NY: Serving as the Village's primary GIS consultant since 2003, continues to manage the development of the Village's GIS Server database, online, and mobile applications. Significant efforts over the years include the creation and management of thousands of Village assets in GIS, including streetlights, signs, and pavement. Manages the systems integration between GIS and the Village's Tyler Technologies permitting system, as well as the ongoing training and mentoring of Village staff. Multiple online and mobile applications have been deployed for Village staff, including a property lookup for Village accounts, tax lot and corresponding County tax parcels number, a GPS-enabled mobile water valve sheet lookup, and a tablet-based tree inventory application for recording and managing significant tree damage after storms. The development of the Village's GIS has improved communication between staff and enabled them to access critical information more efficiently while in the office and in the field.
- Nassau County Department of Public Works Sanitary Sewer Program Management; Nassau County, NY: H2M serves as the lead consultant on a capital program review project, evaluating reports and providing strategic recommendations to align with the County's goals. The focus is on maximizing available funding, incorporating technical innovations, and optimizing project scope to accelerate implementation and meet infrastructure needs. Developed a standardized workflow for creating GIS layers for Capital Maintenance Events (CMEs) and availability projects, incorporating engineer-reviewed features into dedicated GIS layers. Designed a ModelBuilder workflow to automate daily field calculations, with results visualized through maps, dashboards, and Excel-linked reports for enhanced decision-making and project tracking. These web maps and dashboards will be shared between internal H2M departments, with other consultants, and Nassau County.
- Town of North Hempstead GIS Support; North Hempstead, NY: Managing GIS integrations, data conversion and migration, and application development to support improved data tracking and storage for the Town of North Hempstead. Coordinating inter-departmental GIS efforts to improve existing online and mobile applications and create new ones for more efficient data tracking. Efforts include development of several online maps, including a pavement assessment data lookup, resident lookup for pool entry, Town Council District map, town parks with directions, and NYSDEC-mandated outfall inspection status.
- Incorporated Village of Sands Point GIS Program Management; Sands Point, NY: Project Manager for the creation of a comprehensive Village GIS database for water distribution systems, zoning, village club infrastructure, street signage, roadway ownership, and boat docks. Provides guidance and user training on ArcGIS, the Village's online mapping environment.
- Stormwater Consortium of Rockland County (SCRC) MS4 Mapping; Rockland County, NY: Project Manager for the Stormwater Consortium of Rockland County's Water Quality Improvement Project (WQIP) grant-funded MS4 mapping project. Responsible for coordinating with the client, Cornell Cooperative Extension, and the SCRC's 23 consortium member communities. Additionally, manages data assembly, conversion, and consolidation efforts, as well as overall project budget, resources allocation, and overall client satisfaction.
- Incorporated Village of Flower Hill GIS Program Development and Deployment; Manhasset, NY: Managed the development and deployment of the Village's ArcGIS Online account and the Village's underlying GIS database. Oversaw the creation, assembly, and GPS field data collection for Village assets including storm sewers, water distribution, street lighting, electric distribution, and street signs. Managed the creation of the Village's zoning map in a digital GIS format. Through the Village's ArcGIS Online account, the Village can access their data and maps via desktop and mobile apps, enabling all Village staff to access and make decisions based on the same, single set of data, regardless of their location.
- Town of Oyster Bay GIS Program; Oyster Bay, NY: Managed all aspects of the Town's GIS program, including coordination and lead of monthly GIS committee meetings, business needs assessment, budgeting, resource allocation, overall GIS program quality management, and client satisfaction.
- Town of North Hempstead MS4 Stormwater Mapping; North Hempstead, NY: Managed the New York State Department of Conservation (NYSDEC) WQIP grant-funded MS4 stormwater mapping program for the Town of North Hempstead and its 21 consortium villages. Responsibilities included overall project management, municipal outreach and coordination, GIS data analysis, gap analysis and reporting, and resource management for field data collection, and outfall reconnaissance inventory (ORI) activities.





Melisa Ennella GISP

Senior GIS Specialist



Ms. Ennella is a Geographic Information System (GIS) Specialist with experience in developing and maintaining GIS solutions to support water districts, wastewater facilities, and municipalities. Responsible for producing high-quality maps for asset visualization, developing custom applications for efficient data collection, and performing in-depth spatial and statistical analyses to support informed decision-making. Design ArcGIS Online dashboards that provide targeted data visualizations and streamline data management processes. Proficient in using industry-standard GIS software and tools to transform complex datasets into actionable insights. Provide guidance and oversight to junior GIS staff on a variety of projects, ensuring quality control, knowledge sharing, and timely project delivery. Skilled at collaborating with cross-functional teams to optimize workflows and deliver geospatial solutions that enhance operational efficiency and support data-driven planning.

Selected project experience

- Various Clients Lead Service Line Inventory; Various Locations: Responsible for all aspects of project execution, including oversight of staff and quality control processes. Support clients in mapping service line materials in compliance with USEPA Lead and Copper Rule revisions to the Lead Service Line Inventory. Responsibilities include designing material inventory schemas, conducting record reviews, digitizing and linking historical documents, and developing customized Survey123 inspection forms, including resident self-inspections. Deliverables include completed service line inventories for regulatory submission, ArcGIS Online dashboards, data analyses, and public-facing web maps designed to promote transparency and community engagement.
- Town of Hempstead Enterprise GIS; Hempstead, NY: Responsible for oversight of GIS development, data sharing workflows, and quality control, while providing technical guidance to supporting staff. Support clients in mapping service line materials in compliance with USEPA Lead and Copper Rule revisions to the Lead Service Line inventory. H2M compiled, reviewed, and integrated external data for more than 130,000 residents into an interactive GIS database. This involved using manual and programmatic research methods to review 100,000 print tap card records and 150,000 digital records from more than 6,000 residential addresses. H2M teamed with Esri to deploy an Enterprise software solution to support this project, and Town-wide GIS efforts in the future.
- Nassau County Department of Public Works; Nassau County, NY: Led the GIS development and data sharing components of the project. H2M Serve as the lead consultant on a capital program review project, evaluating reports and providing strategic recommendations to align with the County's goals. Focus on maximizing available funding, incorporating technical innovations, and optimizing project scope to accelerate implementation and meet infrastructure needs. We developed a standardized workflow for creating GIS layers for Capital Maintenance Events (CMEs) and availability projects, incorporating engineer-reviewed features into dedicated GIS layers. Designed a ModelBuilder workflow to automate daily field calculations, with results visualized through maps, dashboards, and Excel-linked reports for enhanced decision-making and project tracking. These web maps and dashboards will be shared between H2M departments, with other consultants and Nassau County.
- Passaic Valley Water Commission (PVWC); Clifton, NJ: Spearheaded data analysis and GIS development to support strategic planning. Consolidation of Priority Project Areas supported strategic planning efforts by providing a clearer overview of infrastructure needs. Within each area, calculated asset quantities and estimated costs for water main projects. Developed a ModelBuilder workflow to streamline future updates and ensure efficient integration of new data into the GIS. Performed spatial data analysis to identify the highest and lowest elevation points within each pressure zone using the water main layer. Analyzed the relationship between elevation, pressure zones, and historical water main breaks to support infrastructure assessment and strategic planning.
- West Hempstead, Hicksville, Greenlawn, Dix Hills, Plainview, South Farmingdale, Bethpage, Saint James, Roslyn, South Huntington and Manhasset-Lakeville Water Districts GIS Development; Various Locations, NY: Led the design, development, and maintenance of GIS solutions for water utility operations, overseeing the creation and management of critical infrastructure datasets such as water mains, valves, hydrants, plant sites, and well locations. Directed the integration of utility data with land base layers,

Education

M.S., Environmental Science;
Long Island University at C.W. Post

B.S., Environmental Science; State
University of New York at Binghamton

Licenses/ Certifications

Certified Geographic Information System
Professional, GISCI

Memberships

LIGIS-Long Island Geographic Systems
User Group

NYS GIS Association

GISMO- NYC Geospatial Information
Systems and Mapping Organization

Articles/Papers

Smart Planning Eases Implementation of
Useful Computer Technology. Talk of the
Towns, March/April 2010

Utilizing Geographic Information Systems
to Analyze Suffolk County Groundwater
Contamination. Long Island University C.W.
Post Library, May 2005

Next →

Melisa Ennella

GISP

Senior GIS Specialist

including tax parcels, roads, and buildings, to facilitate spatial analysis and support operational planning. Managed district-level GIS functions, including infrastructure management, maintenance tracking (e.g., main breaks, leaks, complaints), and integration with accounting systems, ensuring enhanced efficiency and data-driven decision-making across the utility.

- Hicksville Water District; Hicksville, NY: Lead GIS specialist responsible for overseeing GIS development, while providing technical guidance to supporting staff. Developed dashboards to visualize pumpage and analytical data over time, consolidating datasets to help monitor trends in water usage and analyte concentrations. The dashboards support historical analysis and enhance data-driven decision-making.
- Hicksville Water District; Hicksville, NY: Led GIS development efforts for the project, including the digitization of Source Water Assessment Program (SWAP) areas for individual well locations. Mapped and analyzed potential contamination sites in the District to support the identification and assessment of possible contamination sources.
- Huntington and Oyster Bay Sewer District GIS Development; Huntington and Oyster Bay, NY: Oversaw all aspects of GIS development, ensuring the successful implementation of geospatial components. Designed, developed, and implemented GIS datasets for wastewater utility infrastructure, including sewer pipes, force mains, and manholes. Incorporated key asset attributes such as installation date, material, and pipe length to support efficient record-keeping, visualization, and infrastructure management.
- Hicksville Water District, South Farmingdale Water District, Greenlawn Water District, South Huntington Water District and Riverhead Sewer District Asset Management; Various Locations, NY: Oversaw all aspects of asset management, including planning, coordination, and execution. Developed an intranet-based asset management system for easy access to O&M manuals and other records. This is a user-friendly system providing for an expanse of data that can be accessed through the District's network.
- Massapequa and Hicksville Water District Plume Mapping; Massapequa and Hicksville, NY: Managed GIS strategy and execution, as well as development and preparation of groundwater contaminant plume maps using GIS.
- Various Municipal Separate Storm Sewer System (MS4) Clients; Various Locations: Responsible for the creation and management of GIS data and schema, ensuring accurate and efficient geospatial data structures. Facilitated the design and development of surveys and survey reports, used for submission and recordkeeping. H2M provided a range of MS4-related services to municipal clients in support of the NYSDEC and NJDEP MS4 regulations including infrastructure mapping, outfall reconnaissance inventory (ORI) and storm sewershed boundary delineation.
- Various Clients; Various Locations: Responsible for the design, development, and customization of Survey123 forms, ensuring tailored solutions for both public outreach and internal data collection needs. Developed customized Survey123 forms for both public-facing and internal data collection, tailored to client needs ranging from simplified public outreach surveys to complex, logic-driven questionnaires. Surveys are used for data analysis, GIS updates, and can be exported as formatted reports for official submission or documentation.
- Stormwater Consortium of Rockland County's WQIP Grant-Funded MS4 Mapping; Rockland County, NY: Oversaw GIS development and developed a cloud-based GIS solution to consolidate data for 23 consortium member communities. The mobile solution allows the members to collect and maintain MS4 data points and fill out ORI forms in the field that can later be printed and submitted. Continually added fields as additional requirements are required.
- Borough of Ringwood; Ringwood, NJ: Oversaw GIS development and consolidated GIS data into a centralized ArcGIS Online database to streamline access and improve data management. Continuously maintain and update stormwater infrastructure layers to ensure compliance with New Jersey Department of Environmental Protection (NJDEP) stormwater permitting requirements.
- Village of Patchogue; Patchogue, NY: Oversaw GIS development and consolidated and updated the Village's GIS data and deployed it to ArcGIS Online to improve accessibility and collaboration. Provided ongoing updates to sewer and stormwater datasets, and developed maps and surveys to support tracking and management of sewer infrastructure projects. Incorporated external data and internalized maps and dashboards for tree survey data throughout the Village.
- Boroughs of Sea Girt, Ringwood, and Spring Lake Heights; Various Locations, NJ: Directed GIS development, contributing to the creation of a centralized GIS database for the Borough's water infrastructure assets. Supported integration of asset maintenance data to ensure compliance with Water Quality Accountability Act (WQAA) standards.
- LICAP Groundwater Management Plan; Suffolk County, NY: Led GIS development and spatial analysis. Consolidated public and private well data sourced from municipal and private organizations across Suffolk County. Performed in-depth data analysis to develop an updated estimate of private well throughout the County. This information will be utilized to support infrastructure planning and cost assessments for extending public water service to underserved properties.



Elizabeth Calderon

Assistant Project Compliance Manager - Water Resources



Ms. Calderon is a document control specialist with experience expediting permit filings and regulatory approvals, gathering property information/history, completing applications, coordinating with owners and municipalities, and maintaining project schedules. Her experience also includes maintaining, tracking, and coordinating project documents such as payment requisitions, submittals, change orders, and municipal submissions for projects in H2M's Water Department. Ms. Calderon is proficient in Microsoft Office and knowledgeable in E-Builder, Newforma, SpecLink, Adobe Acrobat and InDesign, Primavera, Procore, ADP EZLabor, and EVerify.

Selected project experience

- South Huntington Water District AOP Plants No. 10, No. 3, and No. 8 Grant Compliance and Project Coordination Support (New York State Environmental Facilities Corporation [NYSEFC] Water Infrastructure Improvement and Intermunicipal Water Infrastructure Grants); Huntington Station, NY: Supported the District in securing and managing NYS EFC WIIA Grant Funding for drinking water treatment system upgrades across multiple AOP plant sites. Led coordination efforts with NYS agencies to ensure full compliance with grant program requirements, including documentation, reporting, and regulatory submissions. Facilitated the preparation and review of contractor compliance documentation for NYS approval, including MWBE and SDVOB participation goals, subcontractor solicitations, waiver justifications for specialty equipment, and comparative quote analysis. Acted as a liaison between the District and prime contractors to ensure timely submission of critical documentation and adherence to grant timelines. Conducted monthly compliance reviews with contractors and quarterly coordination meetings with the District to monitor progress and resolve compliance issues. Provided ongoing support for grant disbursement processes, collaborating with engineers and project teams to compile and verify payment documentation. Managed project closeout procedures, including final compliance checks, documentation audits, and coordination with NYS for approval of completion records. Maintained detailed internal records, updated checklists, and ensured all documentation was properly archived for grant audit and record-keeping purposes.
- Plainview Water District AOP Plants No. 2, No. 4, and No. 7 NYSEFC WIIA Grant Compliance, Documentation Coordination, and Recordkeeping; Plainview, NY: Coordinated with prime contractors and the staff engineer to ensure timely submission of NYS EFC program-required documentation, maintaining strict adherence to grant deadlines. Supported the District in the preliminary review of contractor compliance documents, including MWBE and SDVOB solicitation records and waiver requests, ensuring alignment with NYSEFC WIIA grant requirements. Reviewed submitted documentation for completeness and accuracy, issued comments to contractors when compliance gaps were identified, and tracked resolution of outstanding issues. Facilitated communication between contractors and the District to streamline document flow and ensure readiness for NYS submission. Submitted finalized documentation to the District for compliance review and onward transmission to NYS for time-sensitive approval and grant processing. Maintained organized internal records of all submitted documentation to support historical tracking and to facilitate resubmission of documents when requested by NYS or required for audit purposes.
- Franklin Square Water District PFOS Treatment at Plant No. 1 Grant Compliance Coordination (New York State Department of Health [NYSDOH] Bipartisan Infrastructure Law [BIL] Emerging Contaminants Funding); Franklin Square, NY: Supported the District in managing BIL Emerging Contaminants grant funding through the NYSEFC. Ensured timely execution of the Project Finance Agreement (PFA) with NYSEFC by the required deadline of September 30, 2025. Coordinated with prime contractors and staff to ensure compliance with federal program requirements, including American Iron and Steel provisions; Build America/Buy America (BABA) domestic sourcing; and Federal Equivalency standards, such as DBE participation, MWBE/EEO goals, and federal signage installation. Reviewed contractor-submitted documentation for accuracy and completeness; provided feedback and coordinated revisions to meet NYS submission standards. Conducted monthly compliance check-ins with prime contractors to verify subcontractor payments and ensure ongoing solicitation efforts where applicable. Maintained detailed internal records of all submitted documentation to support historical tracking and facilitate resubmission or audit requests. Submitted required attachments and compliance documentation to NYSDOH within specified deadlines to ensure uninterrupted grant processing.
- Various Clients Permit Expediting; Various Locations, NY: Experience managing the permitting filing process, including performing research, completing applications, and expediting approvals. Strong

Education

B.A., Marketing;
Dowling College

Memberships

Society for Design Administration

Elizabeth Calderon

Assistant Project Compliance
Manager - Water Resources

familiarity with permit requirements of the New York City Department of Environmental Protection (NYCDEP), New York City Department of Buildings (NYCDOB), New York City Department of Transportation (NYCDOT), and New York State Department of Environmental Conservation (NYSDEC).

- Franklin Square Water District AOP PTA Treatment at Theodora Street Plant; Franklin Square, NY: The District received funds through the NYS Water Infrastructure Improvement Act to upgrade their water treatment system to effectively treat/remove 1,4 dioxane contamination. Responsible for direct coordination between the multiple contractors and the District's Minority Business Officer (MBO) to review all submitted NYSEFC-required documents, which pertain to MWBE and SDVOB contract goals. Review contractor monthly MWBE/SDVOB workforce utilization reports. Direct coordination with the MBO for executed payments for disbursement of grant funds, and assisting in compiling the required paperwork for submission.
- Water Authority of Western Nassau County Wellhead Treatment for Removal of Emerging Contaminants at Station No. 57; New Hyde Park, NY: Direct coordination with the project manager for permit application for oxidizer storage. Responsible for filing permit with Fire Marshal office, follow up for signed approved plans and permit for site. Direct coordination with Fire Marshal for oxidizer storage and site for inspection upon plan approval.
- West Hempstead Water District Birch Street Power Distribution System Resiliency; West Hempstead, NY: Research and compile information for required documents for the Hazard Mitigation Grant Program submission to the New York Division of Homeland Security and Emergency Services. Coordinate with client for application information, support documents, and final submission directly to New York State.
- City of Long Beach Water Department Water Conservation Yearly Update Form; Long Beach, NY: Prepare and submit the NYSDEC annual form based on previous year pumpage information. Coordinate with the client for supporting information to include water conservation efforts.
- Inc. Village of Garden City AOP Treatment at Plant No. 7; Garden City, NY: Provide grant funding application support to the Village to fund water quality infrastructure projects, including upgrades to treat emerging contaminants such as PFOA, PFOS, and 1,4 dioxane. Preparing formal grant application along with supporting required documents such as State Historic Preservation Office (SHPO) project review documents, Smart Growth Assessment Form, and draft Board resolutions. Coordinate with internal departments for engineering report and SEQRA environmental review.
- Dix Hills Water District AOP for 1,4 dioxane Removal at Plant No. 5; Dix Hills, NY: Provide regulatory approval support for the NYSDOH and Suffolk County Department of Health. Coordinate with project manager and staff engineers for required design documents and managed submittals to regulatory agencies to obtain approvals.
- Dormitory Authority of the State of New York (DASNY) CK Post Addiction Treatment Center Conversion; Brentwood, NY: Responsible for construction administration support, coordination with the prime contractor for project submittals and requests for information (RFIs). Coordinated with project manager for the review of submittals and RFIs and with the client for review of record documents. Utilized contractor management software, including Info Exchange Newforma, and ProCore.



Introduction

The Town of Ledyard is seeking a qualified consultant to develop and oversee a comprehensive Lead Copper Rule Revisions (LCRR) Compliance Program. This program will involve supporting the Town in completing all aspects of the final LCRR, the Lead and Copper Rule Improvements (LCRI), and last for at least five years. The Town intends to pursue funding for this program through the State of Connecticut Department of Public Health (CTDPH), primarily through the Bipartisan Infrastructure Law (BIL)'s Drinking Water State Revolving Fund (DWSRF), as well as other applicable funding sources.

H2M understands that the Town's drinking water system has been operated and maintained by Groton Utilities since 2010. Fully treated water is delivered through two interconnections and two separate distribution systems, one located on Route 12, supplying the Gales Ferry Avery Hill areas, and the other on Route 117, supplying the Ledyard Center and immediately surrounding areas. As of 2016, the combined systems have approximately 1,320 metered service connections with two storage tanks, partially dependent on two booster pump stations, located in both Groton and Ledyard to provide adequate supply and pressure. H2M understands that the Town has been in compliance with the CTDPH and Lead and Copper Rule, as demonstrated by the periodic water sampling and reporting in the Annual Water Quality Reports. Results for 2024 are as follows:

Water System	90th Percentile	90th Percentile
Gales Ferry	0.0019mg/L	0.0063mg/L
Ledyard Center	ND (<0.001mg/L)	0.02mg/L

These results were below the action levels of 0.015mg/L for Lead and 1.3mg/L for Copper, as set by the EPA and monitored by CTDPH. The Town has been utilizing best practices in corrosion control using sodium hydroxide and phosphate and advancing efforts in the identification of lead service lines within the Town's distribution system.

As part of the LCRR program, the Town met the requirement of developing and maintaining an LSLI, submitting it to CTDPH by October 16, 2024, and sending educational materials and notifications to affected customers by November 15, 2024. Another key element to the LCRR is to develop and execute an Lead Service Line Replacement Plan (LSLRP) for systems with both known and unknown LSLs. It is understood that the Town will continue to provide appropriate education and outreach to its customers and specific information to property owners and residents with lead service lines.

As part of the LSLRP, the Town has the capacity to perform the LSL replacements from the water mains to curb stops. We understand that the Town is seeking assistance in the management of a replacement program for private-side

services, from curb stops to meters, which will include overseeing the full LSLRP (pre- and post-construction activities) at each affected property.

The Town is also requesting assistance in the review and analysis of its Lead Service Line Inventory (LSLI), development of a lead service line replacement strategy, management of the LSLRP, and development and maintenance of a Customer Engagement and Education Plan. The consultant is expected to develop a scope of work that aligns with DWSRF funding requirements and organize the performance of this work into the following tasks:

- Task 1: LSLI Services
- Task 2: LSLRP Preparation
- Task 3: LSLRP Management
- Task 4: Public Education and Outreach Plan
- Task 5: LCRR/LCRI Support Services

In reviewing the Groton Utilities Water Service Line Inventory, we note that a significant portion of the Town's approximate 1,320 service lines are galvanized and require replacement or are unknown and require further investigation. This project will address lines that fall into either category.

Task 1: LSLI Services

► Technological Capabilities

The first task will be to review and provide technical feedback on the Town's LSLI database to validate compliance with the requirements of LCRR and leverage it to further develop the LSLRP. H2M will confirm the inventory was developed in accordance with LCRR, which may involve evaluating how the service line materials were determined and all available material records, including the work order system, tie cards, assessor database, historical water distribution, maintenance, and replacement documents, and other relevant construction records. H2M will also review service material survey records that have been conducted by customers on the private side of the service line. We will use the data compiled from reviewing these records to further develop the LSLI, with the Town's approval.

H2M will document what updates and changes should be made to advance the accuracy of the inventory. We will also look to develop a process to integrate service material surveys performed by customers from the private side of the service lines, from curb stop to meter. H2M has worked with several clients to develop and incorporate digital asset management systems to better track and monitor their physical assets, which also integrates work orders and LSLIs. Our team proposes a phased approach to complete the inventory, prioritizing areas based on existing data quality, infrastructure age, and other relevant risk indicators. We

will also establish clear procedures for classifying unknown service lines through field investigation methods recognized by the EPA and CTDPH.

► Predictive Modeling (Optional)

Should the Town be interested in predictive modeling to update and complete its LSLI, H2M can offer this service. From our experience performing LSLI work for other clients, we have found that utilizing a third-party predictive modeling platform like leadCAST or an equivalent is only cost-effective for larger systems. Moreover, utilizing third-party platforms for the Town's predictive modeling for the distribution system will not be cost-effective. H2M recognizes that predictive modeling has many forms, ranging from full statistical machine learning applications to more targeted, rule-based analyses that leverage historical records and construction trends. Our team has successfully completed LSLI work across the tristate area using a structured, data-driven approach based on service records, housing stock age, field verification results, and system knowledge. In our experience, this method achieves the level of accuracy and detail required by the EPA and CTDPH without having to invest in costly third-party software. Should the Town wish to pursue a data-driven approach and a more advanced model, we can support the Town in doing so.

► Public Engagement (Optional)

H2M can assist the Town with continuing public outreach, education, and notifications, including written notices to customers, as required under the LCRR. We can assist in developing materials that solicit additional information on the material composition of lines on private property, leveraging the existing service material surveys information from Groton Utilities. H2M can develop procedures to respond to customers' inquiries, create a process to incorporate customer survey results into the LSLI, and assist in having additional materials posted to the Town's website.

We can deploy a digital form, a link to which can be easily emailed, texted, or posted on the Town's website or to Groton Utilities Water Service Line webpage. To enhance or extend beyond Groton Utilities service line survey, the Town can utilize a website URL or by scanning a QR code. Through either method, customers can identify and report on their own water service material, reducing the amount of field investigation required by the Town. H2M will reconfigure this form to align with the Town's specific criteria.

► Final LSLI

We will enhance the inventory so that it aligns with the EPA's Guidance for Developing and Maintaining a Service Line Inventory (August 2022) and LCRR with the CTDPH LSLI template. At minimum, the inventory will include:

- A street address for each connection.
- Information on whether a lead gooseneck, pigtail, or connector is present.
- Installation dates for service lines (if known).
- The size of the Town- and customer-side service lines, whether lead solder is present, and point-of-use or point-of-entry treatment has been used.

To finalize this inventory, H2M will have a QA Advisor, who is independent of this project, perform a thorough review of all the data and deliverables. Our QA Advisor will perform intermittent QA reviews throughout the phases under this task.

Task 2: LSLRP Program

H2M will prepare an LSLRP according to the program requirements established by the CTDPH. The program will include public outreach, education and engagement, funding strategy development, an approach for determining materials of unknown service lines, and a procurement plan (including the scope of work) to support requests for funding through the DWSRF. We will develop a comprehensive LSLRP for the Town that outlines a phased approach to the replacement of all lead service lines. The LSLRP will be sufficiently detailed for the Town to effectively implement, manage, communicate with the public about, obtain DWSRF funding, and execute. Should the Town like to extend the program to address pending LCRI requirements, H2M can expand the scope to incorporate affected schools and child care facilities. Key elements of this would include assisting the Town in developing a list of schools and licensed child care facilities served by the Town, expanding the outreach and education program to incorporate schools and child care facilities, and developing a strategy and SOPs for a sampling program for affected facilities.

► Customer Participation

H2M will develop a strategy for outreach, education, and engagement of homeowners and residents impacted by the LSLRP. This approach will be multi-pronged, including potential expansion of LSL content on the Ledyardct.org website discussing the LSLI, how affected owners can participate in the LSLRP, and remind homeowners to check the water service line map to verify the material and/or status of their water service lines and report unknown service lines.

We have developed a communications plan for affected homeowners that addresses the various phases of a LSLI and LSLR plan for other clients. This plan includes a standard operating procedure (SOP) for performing investigations and confirming service line composition on both the utility and private sides of service lines and the removal of galvanized or lead service lines. This SOP includes timely notifications

ahead of field work or site visits, reminders a few days prior, and a process for follow-up if field work is incomplete or stopped by a resident.

► Service Line Sampling Program

H2M will assist the Town in meeting service line sampling and reporting requirements for compliance with CTDPH and EPA regulations. We will advise the Town on developing an operating procedure for reviewing and tracking drinking water results to comply with the Safe Drinking Water Act (SDWA). We have developed and maintained lists of residents for all aspects of compliance sampling and testing, including the distribution of sampling kits, delivery of samples to certified laboratories, and support of ad-hoc sampling requests. For some of our clients, H2M has integrated sampling results into color-coded GIS maps. If desired, we can work with Groton Utilities' GIS team or the Town's for this integration.

H2M will develop a plan for the selection of NSF/ANSI Standard 53 certified pitcher filter, multi-channel communications for the public, distribution management, maintenance of the pitcher filters, and tracking and reporting for maintenance and tap sampling.

► Funding Assistance

H2M will assist the Town in identifying grant and other funding opportunities and complying with the requirements of the grants the Town has already been awarded. This assistance may include responding to status inquiries, helping to prepare the paperwork required for reimbursement requests, and similar work. We will also assist the Town in seeking clarification from or responding to inquiries from the EPA, CTDPH, or other regulatory bodies concerned with LCRR/LCRI matters. Please see the table in Tab 2 identifying the funding we have administered on our client's behalf for various water infrastructure projects.

► LSLRP Elements

» Replacement Strategy Framework

We will develop a phased approach to the replacement of lead service lines based on inventory analysis and other relevant quantifiers including, but not limited to, the age of the infrastructure, planned infrastructure upgrades/work, planned road paving projects, non-Town right-of-way (ROW) approvals and permits (e.g., with the CT Department of Transportation [CTDOT]), as well as disadvantaged consumers and populations most vulnerable to the effects of lead exposure. In addition, H2M can adjust the replacement rate and goal to accommodate and prioritize areas where exceedances have occurred. (Note: Trigger level was eliminated with the final LCRI Promulgation.) Based on the final LSLI and the LCRR regulatory requirements of CTDPH and EPA, the strategy will recommend and set a replacement goal within the time frame

that the Town seeks to achieve, and at the very least before the regulatory deadline, November 1, 2027. H2M anticipates that the Town may want to condense both the plan development and LSL replacements well before the regulatory deadlines.

We will develop a public outreach strategy that includes informing the public prior to a full or partial LSLR well in advance of replacement activities per CTDPH and EPA requirements. The outreach time frame for those impacted by LSLR will be based on the service line replacement timeline. H2M will prepare and provide required customer notice documents and public education material for distribution and/or for publication on the Town's website. H2M can also provide support at a public informational meeting and/or with the Town Council. Educational materials will be prepared to communicate why the replacement is necessary, what to expect during the replacement phase, activities to be conducted, approximate time frames for the replacement, and care and precautions the Town and its vendors will take during and post-replacement.

» Service Line Material Determination

Our team proposes a multi-pronged approach to determining the composition of service lines made of an unknown materials. Prioritizing areas will be based on existing data quality, infrastructure age, disadvantaged communities, and other relevant risk indicators. We will also establish clear procedures for classifying unknown service lines through field investigation methods recognized by the EPA and CTDPH. Key elements to the service line material identification includes, but is not limited to:

- *Public Engagement and Self-Reporting:* We will leverage and enhance the existing water service material survey on Groton Utilities website. A multi-channel communications plan for outreach with educational materials, including notices to customers as required under the LCRR. Further, we will assist in developing materials that solicit additional information on the material composition of lines on private property. This will include conducting a customer feedback survey and developing procedures to respond to customers' inquiries. The materials can either be published and distributed and/or posted to the Town's website once they are finalized.
- *Field Investigation:* H2M will assist the Town in conducting interior inspections to verify the material of customer-owned service lines. This work will involve gaining access to residential properties and visually inspecting the exposed portion of the service line where it enters the home, typically adjacent to the water meter. Material identification will be based on visual characteristics, and when appropriate, simple physical tests, such as magnet or scratch testing. All observations will be documented electronically using a format and platform agreed upon by the Town. Each entry will include the service address, identified material, inspection method, and supporting photographic evidence to ensure consistency and traceability. The compiled data will be formatted for easy

integration into the Town's service line inventory, and if desired, Groton Utilities GIS website and/or the Town's GIS system for long-term maintenance and reporting.

While not included under our current proposal, H2M strongly recommends the Town consider incorporating field verification through potholing at the curb stop. In our experience, achieving a verifiable and comprehensive inventory requires confirmation of materials on both the public and private sides of the service line. This would involve excavating at the curb stop to expose the service line on either side, documenting observed materials, and restoring the excavation with approved backfill. If the Town elects to pursue this additional service, H2M is fully prepared to assist with planning, SOP development, and coordination of the necessary fieldwork and will submit an additional price proposal for approval.

Our scope of services also includes a plan to validate all non-lead service lines to achieve a 95% level of confidence. The plan will include the following field work to be performed by H2M, other contractors, or Town personnel:

- Develop SOPs for field investigation work to define the roles and responsibilities of all parties involved.
- Assist the Town's staff in performing door-to-door inspections of its customers' water meters (approximately 1,320 homes).

The database will be compatible with GIS software so the Town can maintain and edit the information within. Additionally, we suggest incorporating the electronic database into a cloud-based GIS system, such as Esri's ArcGIS Online (AGOL) software for the management and maintenance of the LSL data. AGOL offers the ability to create, manage, and share GIS data among users. We are experts at deploying ArcGIS Online and its associated web and mobile apps, as evidenced by Esri awarding us with their ArcGIS Online Specialty designation for demonstrating a high standard of service delivery. ArcGIS Online deployment will offer the Town intuitive, map-based (web and mobile) tools for building applications that can streamline operations, particularly record research. Simple maps provide the basic functionality of viewing, navigating, and printing GIS data for a given area. Web apps can easily be customized to respond to various queries, perform status reviews, and assist with reporting.

» Data Management Plan

We will develop a plan to manage and update data, including a process for incorporating lead service line replacements, any new verifications, continued improvement of modeling, and updating the LSLI. Further, we will:

- Create an electronic database to record all water service line replacement information. This database will be compatible with GIS software so the Town can revise and update it whenever necessary

- If the Town chooses to use a cloud-based GIS system, determine the approximate costs, prepare GIS mapping and links to information on surveyed service lines, and provide the Town with a mobile application for its personnel and/or a self-identification tool for its residents.

» SOP Development

H2M proposes to develop a series of SOPs for the Town's Water Department to thoroughly define the roles and responsibilities of all parties involved in the LSLRP. The SOPs will also incorporate definitions, illustrative figures, procedures for coordination, excavation (preparation, site assessment, documentation, and reporting), replacement, and explicit differences between utility- and customer-side replacement.

» Scope of Work and Funding Strategy

H2M will prepare a detailed scope of work, incorporating key elements such as a replacement framework, SOPs, notifications, LSLRP drawings and specifications, public outreach, education, and notification materials. H2M proposes to act as an agent and administrator on behalf of the Town for all applicable funding applications. H2M will prepare all forms, checklists, and technical documentation necessary to obtain DWSRF grants. The ability to accommodate customers that cannot pay for the private side of the LSLR is a critical element to the overall success of the LSLRP. H2M will assist the Town in developing legal documents for work being conducted on the private side. H2M will also work with the Town in brainstorming potential alternative sources for funding and ways to recover funds, e.g., increasing overall water rates, and surcharges to businesses.

► GIS Services (Optional)

Should the Town wish to build and manage their own LSLI on their website and integrate GIS data with their existing GIS platform (versus leveraging Groton Utilities existing database and website), H2M's GIS team can develop and deploy an LSLI repository. Our proposed team of water engineers, data analysts, GIS specialists, and regulatory compliance experts will support the Town's initiative to identify and catalog its water services, pursuant to EPA's recent LCRR. Our team's experience completing LSLI projects includes municipal water departments and special districts throughout the tristate area, thus positioning us to serve the Town effectively and efficiently. From this experience, the Town can benefit from our database development, records management, and data entry processes that we have refined while supporting prior LSL projects. Our previous LSL clients include:

Water Supplier	Approximate Number of Services
Town of Winchester/City of Winsted	2,600
Village of Plandome Manor Water (NY)	2,000
Carle Place Water District (NY)	3,000
Village of Woodbury Water (NY)	3,000
Saint James Water District (NY)	3,400
Hampton Bays Water District (NY)	4,800
Roslyn Water District (NY)	5,875
Smithtown Water District (NY)	5,900
Village of Garden City Water (NY)	7,000
Village of Rockville Centre Water (NY)	7,000
West Hempstead Water District (NY)	7,965
Dix Hills Water District (NY)	8,400
Bethpage Water District (NY)	8,700
Plainview Water District (NY)	10,740
Greenlawn Water District (NY)	12,000
Town of Riverhead (NY)	12,000
South Farmingdale Water District (NY)	12,600
Massapequa Water District (NY)	13,500
Hicksville Water District (NY)	15,200
South Huntington Water District (NY)	17,560
Town of Hempstead (NY)	35,000

► Database Development

Our proposed effort can include the development and deployment of a comprehensive GIS database. Our database structure will accommodate the required attribute fields for recording both the utility and customer-side pipe materials, status, and source documentation. H2M's prior experience creating GIS databases to house LSLI data has resulted in a refined, comprehensive database structure. It reflects a hybrid solution combining the most logical and practical components from a variety of sources, including prior LSLI projects, the American Water Works Association – CT State Section (CTAWWA), CTDPH, Association of State and Drinking Water Administrators (ASDWA), available Esri templates, and local water suppliers. H2M has developed a database capable of accommodating the Town's LSLI data reporting needs. In addition to storing tabular data, our proposed database solution will enable the Town to attach source documents to specific customer locations within the database. Not only does this simplify the records management component of the project, but it also serves as a simple, effective means of recording the reasoning behind each water service line classification. Each scanned record image, or other source material, can be opened from the specific customer point it represents. To accommodate the documentation of source reference materials, pipe material, and inventory status, we have also integrated standardized drop-down lists. This facilitates a more efficient and consistent form of data entry and storage.

Characteristics

Site Address	Text
Account ID	Text
PARID	Text
Residence Year Built	Text
Lead Connector Present (Y/N)	Text
Lead Connector Type	Text
Date Connector Observed	Date
Date-Connector Replaced	Date
Utility Side Status	Text
Utility Side Material	Text
Utility Material Source	Text
Utility Install Date	Date
Utility Side Material Previously Lead	Text
Date-Utility Material Replaced	Date
Utility Material Notes	Text
Customer Side Status	Text
Customer Side Material	Text
Customer Material Source	Text
Customer Install Date	Date
Date-Customer Material Replaced	Date
Customer Material Notes	Text
Galvanized Requiring Replacement	Text
Notes	Text
Completion Status	Text
Utility Material - Finalized	Text
Customer Material - Finalized	Text
Lead Analytical Results	Text
Decade	Text
Date of Construction Pre-1945	Text
GlobalID	Global ID
CreationDate	Date
Creator	Text
EditDate	Date
Editor	Text

Status

Confirmed Copper
Confirmed Galvanized
Confirmed Lead
Potentially Galvanized
Presumed Lead
Presumed Non-Lead
Unknown

Material

Brass
Cast Iron
Copper
Galvanized
Iron
K Copper
Lead
Plastic
Unknown

Source

Customer, Self-Reported
Date of Construction Records
District Knowledge
Lab Analysis
Meter Replacement Records
Other
Plumbing Records
Record Maps
Service Replacement Records
Tap Card Records
Utility Field Confirmation
Work Order Records

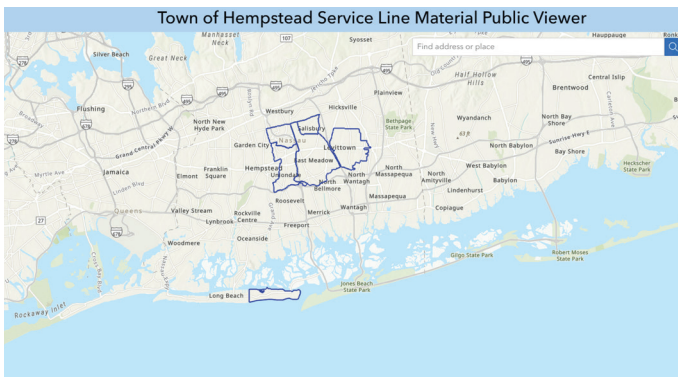
► Software Solution

We propose to deploy and configure a new ArcGIS Online account for the Town to meet data storage, editing, mapping, and data distribution requirements. Integral to AGOL is the ability to create, manage, and share GIS data among users. Our GIS design will accommodate the Town's request for a web-based environment, accessible to Town staff and the public alike. We will work with the Town to configure user credentials and access privileges to accommodate the Town's requirement for office and mobile access with apps like Esri's Field Maps and Survey123, both of which are included with an ArcGIS Online subscription.

In addition to being active business partners with Esri, we are proud to have been recognized by Esri for our experience deploying ArcGIS Online and its associated web and mobile apps. As a distinction for meeting their high standard of delivery, Esri awarded H2M with their ArcGIS Online Specialty designation.

» Web Maps and Apps

ArcGIS Online also provides intuitive, map-based tools for building applications that can streamline your operations, particularly your records and field observations. As part of our design, we will outline the most logical maps and web apps that will benefit the Town and its customers. Simple maps provide the basic functions for viewing, navigating, and printing the GIS data of a given area. Web apps can be customized to meet your query, status review, and reporting needs. Also, we will configure selected maps to be public facing, enabling anyone with the website URL to access and view the data that you choose. Additionally, these web maps can be linked directly to the Town's existing website. See the below photo showing the map we have customized and configured for the Town of Hempstead.



» Public Self-Reporting

For clients who choose to engage their customers for information, we have deployed a digital form, a link to which can be easily emailed, texted, or posted on the Town's website. Using a website URL or by scanning a QR code, customers can identify and report on their own water service material, reducing the amount of field investigation required by the Town. H2M will reconfigure this form to align with the Town's specific criteria and deploy it to obtain public input. Scan the QR code below to view a sample of the self-reporting form we have deployed for our clients.



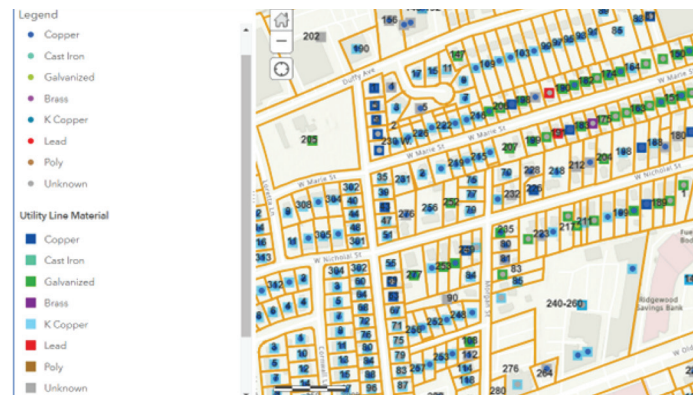
► Mobile Access

ArcGIS Online subscriptions provide access to several mobile apps that facilitate simple data distribution, remote collection, and editing. We propose to create and deploy an ArcGIS Online mobile map for use on Esri's Field Maps app. Because the app is a component of ArcGIS Online, the data within the

app is connected directly to the cloud-based account, thereby enabling all users to access the same core data, eliminating any local copies or data silos. In addition to enabling mobile editing of the Town's LSLI data, the Field Maps app includes the ability to take and attach photos to GIS data records. Using the camera on a phone or tablet, customers, Town staff, and consultants can enter service information and then upload a photo with the click of a button. Users can upload multiple photos per data record requirements.

» Operations Dashboard

One of the most powerful tools offered by Esri is the Operations Dashboard. Providing a snapshot view of critical data, key metrics, and live data status are just a few of the functions this tool offers. H2M often creates customized operations dashboards for our GIS clients, because they present important data and statistics to a user, such as an office supervisor, without the need for any mapping or AGOL training. As part of our deployment, we will design and deploy the dashboard components and reporting capabilities that will simplify the Town's LSLI data management and reporting.



► Training and Ongoing Support

H2M will provide Town users and an administrator with up to four hours of onsite training. The training will cover general administration of the LSLI data layers, our delivered maps, and procedures for maintaining the information with both desktop and mobile app tools. We will provide a short training document that details the procedures for the management and revision of the final data deliverable. In addition to the onsite training, H2M will provide the Town with ongoing hourly support to maintain the database until at least December 31, 2026.

► H2M's Capacity to Provide Services

Typically, H2M is actively working on over 1,000 projects at any point throughout the fiscal year. These projects span our multi-disciplined capabilities and are carefully managed by our 580+ team members from any of our office locations. Considering this workload, is it essential that we verify our ability to meet a client's needs on a potential project before we devote the resources to its pursuit. Doing so involves thoroughly reviewing the services required, our monthly

project detail and staff utilization reports, and financial management and resource planning software. For this project with the Town, we have analyzed this information and can confirm our ability to fulfill your needs as outlined in the solicitation documents, as well as continue to meet the needs of our other clients on concurrent, active projects.

► Bid Support

Upon completion of detailed design and permitting, and upon receipt of approval by CTDPH of the LSLRP, H2M will assist the Town in preparing construction contract documents in accordance with CT bidding regulations for LSLR. H2M can assist the Town in advertising bids for general contracting. We can act as agent and document manager on behalf of the Town during the bidding process.

H2M will advertise bids on behalf of the Town in accordance with CTDPH Authorization to Advertise requirements and will manage bidders' access to bid documents. H2M will log and respond to the bid phase requests for information (RFIs) and, if necessary, issue contract addenda. H2M will attend the bid opening (to be held in-person at Town Hall) and review the top three bids. H2M will compile a bid tally and recommend the lowest qualified bidder to the Town. This information will first be communicated to the Town's assigned CTDPH project manager and reviewed. Upon confirmation from the CTDPH, H2M will deliver a final recommendation of award to the Town Administrator and Attorney before its reviewed by Town officials and considered for authorization. We plan to advertise the general contracting work as a single contract, and we limit our scope to the management of one bidding process.

Task 3: LSLRP Program Management

► Construction Administration

H2M proposes to act as agent, document and information manager, and progress administrator throughout the construction process. We will provide document and information management services for all the Town's service line assets identified and/or replaced. All LSLI and LSLRP data will be stored, managed, and updated in a Microsoft Excel spreadsheet. H2M will perform the following:

- *Meetings:* Administer, document attendance, and develop minutes for meetings.
- *Shop drawing submission:* Log, review, and respond to all submissions received.
- *RFIs:* Log, review, and respond to questions received from bidders.
- *Monthly payment requisitions:* Log, review, and recommend actions based on the contractor(s) performance.
- *Monthly document exchange:* This will occur with the CTDOH project manager administering the SRF grant funds.

- *Change order requests:* Log, review, and recommend actions for any unexpected circumstances or changes in plans or specifications.
- *Punchlist:* Compose and coordinate closeout of punch lists at construction nears completion.

► Pitcher Filter Distribution/Maintenance Management

Critical to the success of this program is a thorough plan for the pitcher filter distribution and maintenance program and associated tap sampling. Along with this, we will provide literature to customers explaining the necessity of pitcher filters. Our plan will include, but not limited to:

- Selection criteria for the most effective pitcher filters that are certified to NSF/ANSI Standard 53 for assurance of reliable performance.
- A multi-channel outreach plan for informing affected/eligible customers about the program, criticality of proper usage and maintenance of the pitcher filter and process for requesting/obtaining a pitcher filter.
- Packaging and distribution plan for pitcher filters which, based on H2M's experience, there are reputable third-party partners we have utilized that provide a turn-key solution. Assemble and ship kits directly to customers and the degree of effort in determining logistics, and provide the Town with a limited supply for ad-hoc requests.
- Tracking and reporting plan to capture pitcher filter distribution and effectiveness as well as replacements (entire system, filters).
- Standard procedures for initial set up, flushing, use, cleaning, filter replacement, as well as instructions for tap sampling.

► Tap Sampling Pre- and Post-LSLRP

H2M can take over management of the existing tap sampling program that the Town has been managing. We recommend that we review the current sampling program and provide recommendations for enhancements, as needed. Key elements to the tap sampling program include:

- *Town Resident Sampling Requests:* This aspect of the program allows residents of the Town to request a lead sample for their residence, either through email or through QR code scanning. Requests will go to an H2M email box and we will log sample requests and confirm eligibility requirements (Town resident, not repeat sample request, resident is not an apartment complex, and is served by the Town's water distribution system). Sampling bottle bundles prepared with instructions and chain of custody forms to deliver to residences on a periodic schedule (bi-weekly or weekly). Coordination of delivery of sampling and testing to a certified drinking water analytical laboratory. H2M will analyze and review

sampling results and prepare results notifications to residents, while keeping the Town informed of results. We will also address questions that residents might have regarding lead issues and sampling questions.

- **LCR Compliance Lead Sampling and Report:** The Town is required by CTDPH to sample annually (based on water quality results that were below lead and copper action levels for two-consecutive six-month monitoring periods). The Town's current sampling pool consists of 80 Tier 1 residences, once per year for lead action level compliance. H2M can assist the Town with meeting CTDPH testing and reporting requirements by:
 - » Reestablishing and maintaining the Tier 1 list of residents for compliance sampling in 2027. The list is required to be submitted to the CTDPH prior to compliance sampling for each round.
 - » Contacting residents on the list for compliance sampling. The minimum requirement is 60 residents.
 - » Preparing sampling bottle bundles with instructions and chain of custody forms to deliver to eligible residences; mapping the most efficient routes for delivery and pick-ups.
 - » Preparing LCR report for submission to the CTDPH due 10-days after the compliance monitoring period ends.
 - » Delivering samples to laboratory; analyzing and reviewing sampling results.
 - » Coordinating public notification and outreach to be approved by the CTDPH. Response to CTDPH report letters.

H2M will establish a procedure for tracking and reporting on residence LSLR, including the development of a post-replacement tap sampling test for lead, within three to six months of the replacement. We will provide an SOP for the Town to incorporate notification and scheduling of the post-replacement tap sampling as well as best practices for the resources performing the service line replacement, bringing the new service line online and mitigating risk for future lead exposure, especially in consideration of the lowered action level of 10ppb. SOP for water sampling will provide guidance on collecting samples, including details on collection of the first liter and the fifth-liter sample, after a six-hour minimum stagnation period. Should the replacement program extend into 2028, H2M can assist the Town with the development of a formal site sample plan that must be submitted to CTDPH for review and approval.

Affected customer outreach, education and communications will be a critical element to the replacement and sampling program and incorporated in Task 4 Public Education and Outreach Plan. The plan will include specific instructions for affected consumers and customers to take specific actions after a partial or full-service line replacement (following the disturbance of a lead, copper, or unknown service line).

Task 4: Public Outreach and Education Plan

H2M's team will support the Town's public outreach efforts with data-driven statistics, communication assistance, and recommendations in the form of educational materials on the Town's website, public meetings, and brochures. The objective results of our LSLI will inform and guide our public outreach activities. The cornerstone to our communications plan is leveraging either the Town's existing GIS online environment or Groton Utilities, depending on the Town's preference. Our inventory procedures, progress, and results will be available on-demand and will promote transparency with the public. We propose to deploy a public-facing, project status dashboard that will convey critical metrics and maps of our LSLI and sampling progress.

Fully configurable, this dashboard will reflect the information determined as most relevant to the public and required under current regulations. H2M will provide the Town with relevant GIS data points representing potential lead service laterals. This information can be used to identify the residents most likely to have lead services, and with whom the Town should prioritize communication. H2M will work with the Town to develop appropriate materials for distribution to the public throughout the project. This effort will also include the development of a procedure for identifying specific residents based on inventory results. GIS data identifying potentially affected residents can be cross-referenced with others Town databases to obtain current mailing addresses and phone numbers if the Town chooses to use these methods to communicate with the public.

H2M will develop a system to notify residents with possible or confirmed LSLs. As Task 2 is underway, the notification system will incorporate the updated inventory information to make new notifications and updates, as appropriate. Once the LSL is replaced, H2M will develop an SOP for providing pitcher filters/cartridges to each customer affected by the LSLR, as well as assisting the Town in procuring filters. The Town will need to provide pitcher filters/cartridges to each customer for six months after replacement of a lead service line within 24 hours of a full or partial LSL replacement. H2M will also revise the core GIS database to track the delivery of the pitchers and filters. H2M has a knowledgeable and capable marketing staff that will assist the Town in the creation and development of outreach, educational and promotional materials through the entire process of the LCRR, including the inventory, sampling and replacement phases.

Task 5: LCRR/LCRI Support Services

H2M will provide the Town with implementation support throughout the duration of the project, which includes monitoring LCRR/LCRI regulation changes or updates at both the federal and state levels. We will inform and advise the Town on any potential impacts to the existing LSLRP, recommend changes to maintain compliance

with the regulations, and elaborate on how regulatory changes may affect the services we will provide. Potential activities that may need to be modified due to future regulatory changes or implementation guidance include:

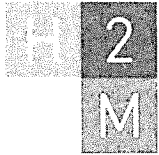
- Alterations to lead and copper tap sampling procedure, sampling plan, and site selection pool, incorporating the site selection tiering criteria (Tiers I through V) when the LCRI takes effect.
- Evaluation of corrosion control treatment approaches and recommendation for adjustments.
- Advancement of the Water Quality Parameter Monitoring Program and associated Annual Water Quality Reporting
- School sampling and public education.
- There is currently a Tier 1 Public Notification requirement for a lead Action Level Exceedance (ALE); this can be of concern when this ALE drops from 15 to 10 ppb in 2028.
- Beginning 2028, the 30-day requirement to provide results to customers will decrease to a three days.

► Deliverables

1. Review current communication materials on lead and copper and compliance with LCRR. Make recommendations for any updates or enhancements to materials.
2. Public education and outreach program including data packets to meet LCR requirements, with keen focus on individuals with identified lead service lines or service lines of unknown materials. Educational and communication materials will be multi-channel and format, including digital and website content, door hangers, fact sheets, mailers, etc.
3. Plan for notifications for customers impacted by the replacement program, with advanced notice, with two to three touchpoints as well as communications post-replacement, including details on the pitcher filter program.
4. A social media strategy to drive awareness and provide education for customers, including development of content throughout the lifecycle of the LSLRP Program.
5. SOP for providing required notifications.
6. Optional: Develop content and hold program for training schools and daycare centers on sample collection.
7. SOP for providing filters to affected residents.
8. Solicitations and bid evaluation for filter and pitcher purchases.
9. Program for notification of lead service lateral homeowners.
10. Public education and outreach assistance program.

► Notes and Assumptions

1. H2M's responsibility is providing SOPs and protocols and does not include the implementation of these protocols.
2. If the contract, scope of services and fees are not finalized before October 31, 2025, it is assumed the Town will perform the annual notifications, due by December 31, 2025, for affected customers.
3. All software, hardware, and Esri subscriptions fees are the responsibility of the Town.



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A NOTICE AND INVITATION TO ALL EMPLOYEES AND APPLICANTS

RICHARD W. HUMANN, P.E., PRESIDENT/CEO

AFFIRMATIVE ACTION AND EQUAL EMPLOYMENT OPPORTUNITY POLICY STATEMENT

H2M has been and will continue to be an equal opportunity employer. To assure full implementation of this equal employment policy, we will take steps to assure that:

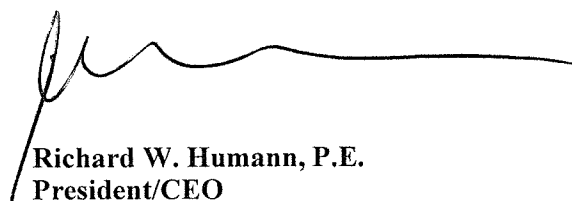
- a. Persons are recruited, hired, assigned and promoted without regard to race, national origin, religion, age, color, sex, sexual orientation, gender identity, disability, or protected veteran status, or any other characteristic protected by local, state, or federal laws, rules, or regulations.
- b. All other personnel actions, such as compensation, benefits, transfers, layoffs and recall from layoffs, access to training, education, tuition assistance and social recreation programs are administered without regard to race, national origin, religion, age, color, sex, sexual orientation, gender identity, disability, or protected veteran status, or any other characteristic protected by local, state, or federal laws, rules, or regulations.
- c. Employees and applicants shall not be subjected to harassment, intimidation, threats, coercion or discrimination because they have: (1) filed a complaint; (2) assisted or participated in an investigation, compliance review, hearing or any other activity related to the administration of any federal, state or local law requiring equal employment opportunity; (3) opposed any act or practice made unlawful by any federal, state or local law requiring equal opportunity or (4) exercised any other right protected by federal, state or local law requiring equal opportunity.

I have appointed Elizabeth C. Uzzo to take on the responsibilities of EEO Coordinator. The EEO Coordinator will be responsible for the day to day implementation and monitoring of the Company's Affirmative Action Plan. As part of that responsibility, the EEO Coordinator will periodically analyze the Company's personnel actions and their effects to ensure compliance with our equal employment policy and administer the audit and reporting system.

If you, as one of our employees or as an applicant for employment, have any questions about this policy or would like to view portions of the Affirmative Action Plan, please contact Elizabeth C. Uzzo during regular business hours. This is also a reminder that employees may update their disability status at any time by contacting Elizabeth C. Uzzo.

I have reviewed and fully endorse our Affirmative Action and Equal Employment Opportunity program. In closing, I ask the continued assistance and support of all of the Company's personnel to attain our objective of equal employment opportunity for all.

Sincerely,



Richard W. Humann, P.E.
President/CEO



architects + engineers



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*ENTERPRISE CAPABILITIES