

Request for Qualifications

Professional Consulting Services for the Livingston County Water and Sewer Authority ("LCWSA")

LCWSA is seeking qualifications statements for Professional Consulting Services. This Request for Qualifications ("RFQ") is for consulting services to assist LCWSA with implementing the Livingston/Wyoming Water Loss Control Pilot Program.

LIVINGSTON COUNTY WATER AND SEWER AUTHORITY

The Livingston County Water and Sewer Authority is a public benefit corporation established in 1995 by an act of the New York State Legislature. LCWSA currently serves over 7,000 water and sewer customers. We operate and maintain three wastewater treatment plants, approximately 55 miles of sanitary sewer pipe, 46 sewer pump stations, 13 water towers and approximately 140 miles of water pipe. The LCWSA serves residents in 12 different communities and is actively working with community partners on several water and sewer expansion projects throughout Livingston County.

PURPOSE

The Livingston County Water and Sewer Authority, in partnership with the Wyoming County Water Resource Agency, has received a Local Government Efficiency ("LGE") grant through the New York State Department of State to develop and implement the Livingston/Wyoming Water Loss Control Pilot Program ("Program") for small water utilities within our two-county region to learn how to improve water efficiency within our systems and to control water loss through a water system audit process.

See Attachment A for a full description of the Program, timeline and program tasks/deliverables. This RFQ is intended to retain professional consulting services to facilitate and complete the training and technical assistance identified under Phase I and Phase II of the Program Tasks/Deliverables.

The Water Loss Summit and implementation of the Water Loss Strategies will be facilitated by LCWSA, and it is expected the selected Consultant will participate in the planning process and advise LCWSA accordingly.

LCWSA has hired the Water Resource Sustainability Analyst and will work with the selected Consultant to manage the Program and support the participating municipalities by coordinating with municipal staff and the selected Consultant to navigate the water audit process. The Water Resource Sustainability Analyst position will also coordinate with all program participants in organizing and hosting the Water Loss Summit at the conclusion of the Program.

MWBE & SDVOB PARTICIPATION

The Authority is committed to maximizing minority and women business enterprise (“MWBE”) and service-disabled veteran-owned business (“SDVOB”) contracting opportunities, in accordance with Article 15-A and Article 17-B of NYS Executive Law. NYS MWBE and SDVOB certified Firm’s are encouraged to respond to this RFP.

EVALUATION

The LCWSA will evaluate all the **Statements of Qualifications**. The qualifications will be comparatively evaluated based upon the requirements stated in the body of this RFQ. After reviewing the Statement of Qualifications, the consultants will be ranked on their:

- Staff/Firm expertise with water loss control initiatives, specifically their familiarity with the AWWA-M36 methodology and water audit process – 50%
- Familiarity of the LCWSA service area/region and/or history of similar relationships with smaller communities, utilities, and/or public authorities like LCWSA – 25%
- Demonstrate how (in-person, remote, hybrid, etc.) the firm will provide the training to municipal and utility staff to ensure the information and content is easily understood and implementable – 15%
- Appropriate Job Title Billing Rates – 10%

It should be noted that the Consultant will be selected based on the evaluation criteria. Contract negotiation with the most highly qualified firm to determine compensation that is fair and reasonable based on a clear understanding of the project scope, complexity, professional nature, and the estimated value of the services to be rendered. In the event that a contract cannot be negotiated with the most highly qualified firm, negotiation continues in order of qualification.

STATEMENT OF QUALIFICATIONS CONTENT

- A statement is required of each firm submitting qualifications that best describes the firm’s understanding of this undertaking, their unique qualifications, their knowledge of government/public utility projects, specifically their experience and familiarity with implementing the AWWA-M36 methodology and water audit process with small utilities.
- A list of communities/clients and dates where you have provided similar services.
- Provide the following information:
 - A statement clearly indicating that your firm has the capacity to enter into Consulting Services Agreement should you be selected for this project.
 - Indicate the primary location of the offices where the work would be performed.

- An organizational chart indicating the staff that may be assigned to the contract and their responsibilities.
- Demonstrate the firm's ability to perform and complete the tasks of the project in a timely manner.

SUBMISSION OF PROPOSALS

Responding Firms must submit **three (3)** hard copies of the proposal and one digital PDF file (emailed or on a USB flash drive). An officer of the Firm must sign one (1) hard copy of the proposal. The Statements of Qualifications in their entirety shall not exceed **five (5)** pages (excluding a one-page cover letter); double sided; not smaller than size 12 font. The proposal shall include a clear table of contents addressing all the requirements of the RFQ. These requirements will be strictly enforced.

LCWSA reserves the right to reject any or all Statements of Qualifications. This invitation does not commit the LCWSA to accept any Statements of Qualifications and does not obligate the LCWSA for any cost associated with the preparation of the same.

Proposals should be clearly marked as **"Professional Consulting Services: Livingston/Wyoming Water Loss Control Pilot Program."**

Proposals can be mailed or hand delivered to the following Designated Contact:

Jason Molino, Executive Director
Livingston County Water and Sewer Authority
1997 D'Angelo Drive
P.O. Box 396
Lakeville, NY 14480
Phone: (585) 346-3523
Email: jmolino@lcwsa.us

All questions regarding this RFP shall be directed to the Designated Contact identified above no later than **Monday, November 10, 2025**.

Deadline for submission of proposals is: **Friday, November 14, 2025 @ 3:00 pm**. Late submissions will not be accepted.

Attachment A

Livingston/Wyoming Water Loss Control Pilot Program

The Livingston County Water and Sewer Authority (LCWSA), in partnership with the Wyoming County Water Resource Agency, are interested in developing a Pilot Program for small water utilities within our two-county region to learn how to improve water efficiency within our systems and to control water loss through a water system audit process. Similar to financial audits conducted by accountants, a water audit compares volumes of water treated (or purchased) and pumped to volumes consumed by customers, and other uses such as firefighting, water breaks and community uses. Estimated volumes of losses due to leakage and poor metering and accounting can also be quantified in the water audit process. A reliable water audit methodology was developed jointly by the International Water Association (IWA) and the American Water Works Association (AWWA) and is described in detail in the AWWA M36 Manual.

Background – Water Loss Control and the AWWA M36 Methodology

Every year - every utility spends money on waste through water losses, which creates a financial and water resource burden on the utility. Even those with no active programs to find and fix it – they still spend, and many over-spend, through uncaptured revenues and wasted expenses. Those with active programs spend through intervention costs plus their remaining losses. The American Water Works Association (AWWA) M36 Manual for Water Audits and Loss Control Programs details the industry best-practice for water loss accounting.

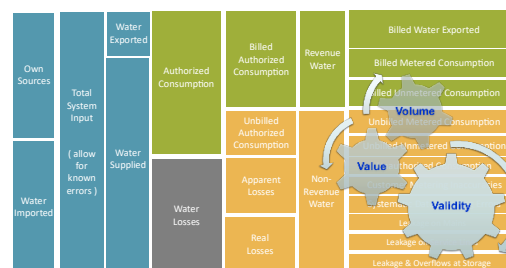


Figure 1: AWWA Water Balance and 3V Metrics

Water auditing is growing in adoption across the U.S., as supplies are becoming more constrained and conservation objectives are growing. As this happens, recognition is spreading that water losses represent both uncaptured revenue and new supply.

Water loss control is an essential part of water resource management for water utilities, as it represents an opportunity for natural resource recovery, financial recovery and energy efficiency. Best practices for water loss management have been established by the American Water Works Association Manual 36 (AWWA M36), including the AWWA Free Water Audit Software (FWAS) for conducting and validating annual water audits. The AWWA M36 methodology aims to reach and maintain the economic optimum loss levels within a utility's operation. The foundation of the FWAS is the Water Balance (Fig 1), indicating a mass balance approach and accounting for all potable volumes of water entering the distribution system. The results from the FWAS look at water losses in terms of volume, value, and validity, rather than a percentage.

Every year, all utilities have wasted expenses and uncaptured revenues due to water losses, which create financial and water resource burdens on utilities. Even utilities with active programs to detect and address water losses often spend more than is necessary or financially sound through intervention costs plus their remaining losses (Fig. 2), especially if such programs are not part of a more comprehensive utility-wide water loss control program.

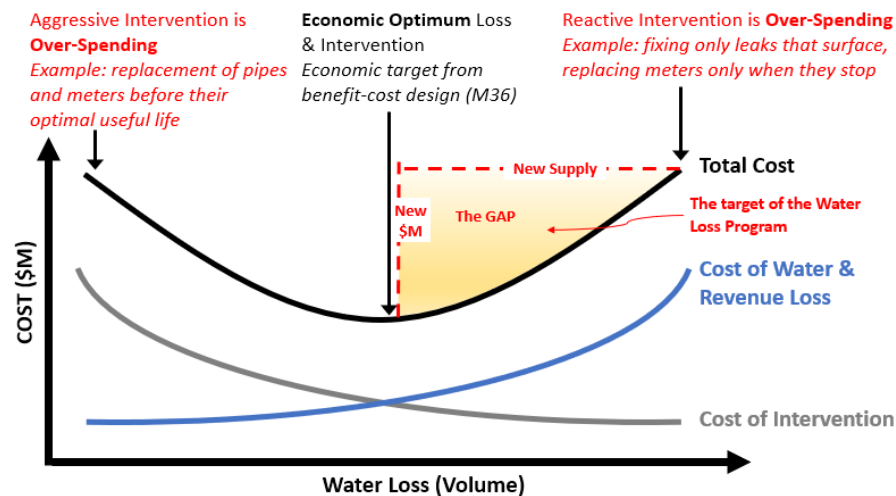


Figure 2: The AWWA-M36 methodology helps a utility determine their Economic Optimum, a target that can be used to design a loss and intervention program that balances costs and benefits.

When an industry standard program, such as the AWWA M36 process is used, reduction of distribution system leakage results in a direct reduction of water production and/or water purchase costs, and results in a direct reduction of water extracted from the source. Reduction in losses from metering, billing, and theft results in top-line revenue growth. These benefits serve the environment, the utility, and the ratepayer alike. The financial recovery that is possible under such a program can help a utility become more self-sustaining over time and rely on more local funding solutions to infrastructure needs. For example, in addition to simply minimizing lost revenues, utility funds can be targeted towards more prioritized and strategic needs within the utility, which maximizes long-term impact of spending.

As utilities begin to perform standard water audits and have those audits move them to quantification of the components of a Non-Revenue Water program, they then can evaluate the economics and implement cost effective recovery strategies. Without this process, utilities and state agencies will continue to misapply recovery tools and strategies and critical funding.

The outcomes of implementing a program such as the AWWA M36 methodology can help a utility have access to a range of different capital sources and decrease long-term reliance on grant funds. In the long-term, these financial management outcomes help promote overall affordability of water and wastewater services by helping utilities become better stewards of water and financial resources.

The purpose of this pilot program will be to provide technical assistance to a pilot group of 17 water systems across Livingston and Wyoming counties to implement best-management practices for water loss control following the methods established in the AWWA Manual of Water Supply Practices M36 Water Audits and Loss Control Programs.

Phase 1 of the pilot program will include seventeen (17) utilities of small system sizes and variety level of water loss management experience, within Livingston County and Wyoming County, New York. The program will provide the pilot group with a foundational understanding of the M36 methodology and the accompanying AWWA Free Water Audit Software, how they are applied, and how utility data collected and analyzed with the methodology may be used to assess and improve water loss performance at the utility level. The conclusion of this process will assist each participant in establishing its Water Balance, quantifying the amounts of both billed and lost water (leakage).

In addition, the Water Balance will assist in developing a specific energy carbon intensity and apply it to quantify carbon emissions for each component of the standard Water Balance. This is known as a Carbon Balance which can be conducted annually in conjunction with leakage reduction initiatives, to track metric tons of carbon emissions avoided as a result of the leakage reduction intervention. The result of developing a Carbon Balance will be to quantify carbon emissions as a component of leakage.

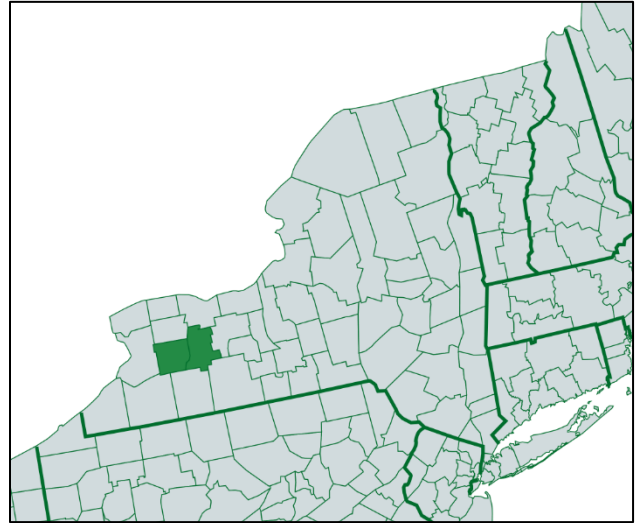


Figure 3: Placeholder for Counties image

The M36 key concepts gained by participating utilities in this training and technical assistance program will equip staff to:

- Establish an annual water balance that disaggregates all subcomponents of water loss in terms of volume and value
- Conduct a rigorous assessment of data validity to benchmark audit reliability and identify where data improvements are warranted
- Plan next steps toward improved data and water loss management, particularly with a focus on cost justification

Utilities who adopt AWWA M36 best practices are also positioned to make better capital investment decisions for asset management, maintain resiliency for drought, and proactively show efficiency improvements to their customers ahead of necessary rate increases.

The Water Loss Pilot Program (Program) proposed herein would provide participating water utilities with effective tools and methods to promote accountability and efficiency in their supply operations,

and more fully realize the benefits of infrastructure management. By helping utilities achieve and maintain aggregate economic optimum loss levels – in other words, minimize water loss and waste while maximizing financial sustainability for the utility – the outputs of the program can promote utility viability through better infrastructure management and financial management. The additional benefits of the program, such as peer-to-peer learning, sharing of best practices, and building regional connections and cooperation among utilities, and can help achieve organizational management.

Participating Utilities

The selection of participating utilities will be important for the success of the Program, but also for its impact on follow up activities for water loss management and statewide training and technical assistance in New York. The Program aims to recruit up to ten participating small to medium-sized utilities reflecting a range of water loss management experience. Utilities will be identified through consultations between the project team and Livingston and Wyoming County collaborators. Each utility will be represented by 2-4 team members, as different staff positions within a utility will bring different data and expertise to the process. Prior experience with the AWWA M36 methodology is neither a pre-requisite nor a deterrent for pilot utility participation in this program.

Program Approach, Timeline and Deliverables

The following approach, timeline, and deliverables framing out the training and technical assistance are provided below.

Phase I: Program Approach

- Establish baseline AWWA M36 Top-Down Water Audit using most recently completed year (calendar/fiscal) as benchmark. We will walk the participants through this for the 2024 audit. For the 2025 audit, more responsibility will be given to the utility to prepare their audit and supporting data prior to Level 1 Validation
- Employ guided implementation of the Level 1 Validation on the Top-Down Water Audit (methods per AWWA Water Audit Data Initiative and forthcoming WRF Project 5057).
- Conduct a technical assistance workshop to train the pilot participants in these foundational concepts and equip them to implement this practice for future years.
- Demonstrate both the accessibility and the power of the M36 method for water and financial conservation.
- Reinforce that supply-side conservation also offers better positions the utility to compel demand side conservation from their customers.

To accommodate the inclusion of the selected utilities in a meaningful, thorough, and impactful program, the program tasks are outlined below and will balance the objectives of:

- Economy of shared workshop space to the program budget.
- Intrinsic value to participants to engage with and be exposed to the practices of peer utilities (this is lost with a sole workshop approach). Intend for at least 2-4 participants per utility.

- Convenience of a close workshop event for the participating utilities, allowing them to bring the appropriate team members and minimizing their time and travel impacts

Phase II: Program Approach

Phase 2 of the pilot program will provide one utility, the Livingston County Water and Sewer Authority, with Level 2 validation of water balance with uncertainty analysis, non-revenue water economic analysis and non-revenue water program design. Phase 2 objectives will be to prepare an effective, achievable strategy for successful transition to a comprehensive water loss control program.

- To validate the source data from the originating data systems feeding the water balance inputs and establish statistical confidence levels on the water balance outputs.
- To assess the magnitude of volumes and costs between the current and optimal non-revenue water at the component and aggregate levels and design a comprehensive, dynamic model to assist the utility reach the optimal economic level of water loss.
- To prepare an effective, achievable strategy for successful transition to a comprehensive program.

At the end of Phase 1 and Phase 2 the Livingston County Water and Sewer Authority and Wyoming County Water Resource Agency will conduct a regional Water Loss Summit with all participating utilities and inviting all interest parties throughout the Genesee Finger Lakes Region (9-County Region including the City of Rochester) from municipal and county officials, state agencies, contractors and non-governmental organizations. The purpose of the Water Loss Summit will be to share the participant experience and possibly develop a model for other municipalities in the State to follow. Also, it is anticipated the Water Loss Summit will provide Continuing Education credits (CEU's) for water operators and Professional Development Hours (PDH's) for professional engineers that attend.

Water Loss Summit

Following the Water Loss Summit, the Livingston County Water and Sewer Authority will dedicate a webpage on its website showcasing the pilot program and Water Loss Summit for public viewing. In addition, the Authority will incorporate, update and publish on its website and in its annual report, the Authority's annual Water Audit, highlighting both Water Balances and Carbon Balances.

Water Resource Sustainability Analyst

To assist with the implementation management of the pilot program, the program will provide funding for a Water Resource Sustainability Analyst position, to be hired by the Livingston County Water and Sewer Authority, to manage the program and support the participating municipalities by coordinating with municipal staff and consultants to navigate the water audit process. The Water Resource Sustainability Analyst position will also coordinate with all program participants in organizing and hosting the Water Loss Summit at the conclusion of the Pilot Program. Following the grant terms, the Authority intends to permanently fund the position through financial savings achieved from implementing its water loss control program.

Water Loss Strategies

Lastly, the pilot program will support the use of several leak detection strategies to demonstrate and provide water loss control options and initiatives for consideration:

1. The program will fund acoustic leak detection equipment and training for the Water Resource Sustainability Analyst who will then be available to all participating municipalities as part of water loss control efforts and leakage reduction initiatives. This will assist municipalities in identifying non-surface leakage by implementing proactive leak detection capabilities through intermunicipal collaboration. Proactive water leak detection is essential in making serious headway in water loss reduction.
2. The program will fund a pilot partnership with a K-9 (dog) leak detection services to demonstrate to program participants affordable resources and tools available in the region for identifying sub-surface leakage. Based out of Livingston County, NY, Shadow, the first K-9 H2O leak detection dog in New York State, will cover approximately 20 miles of water main in selected areas throughout the pilot program area. Dogs have extremely sensitive noses, and water leak detection dogs have been specially trained to locate chemicals like chlorine. Water leak detection dogs can detect the chlorine that off gases from sub-surface leaks and make its way to the surface, even when the water has not yet surfaced.

The result of the pilot program will be the first of its kind in the United States of America that specifically targets water leakage and carbon emission reduction, creating a model for measuring and monitoring a utility's water balance and carbon balance. In addition, it will provide insight to the benefits of water conservation through reduced leakage, increased water availability, reduced production and maintenance costs, greater water distribution system resiliency and improved public water supply safety.

Program Timeline

The full project is intended to be completed within 20-24 months.

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Phase I & Phase II Program Tasks/Deliverables

Program Development

- Webpage development/Kick-off webcast
 - Work with LCWSA to confirm participant utilities
 - Develop Program website
 - Develop and deliver webcast with program overview
 - Deliverables:
 - Program Website
 - Kick-off webcast and slides/materials

Phase 1 – 17 Utilities

- Data request
 - Distribute data request to participants and communicate deadline to submit data
 - Data to be submitted through the program website
 - Deliverables:
 - Data Request sheet
- Receipt of any preliminary audit and data request information
- On-going, regular communication and updates with participants
 - Reminder and promotion to bring all interested parties from the utility to the workshop
 - Sharing resources via program website
 - Deliverables:
 - Regular written progress reports at the preferred frequency of [Grantor]
- Schedule/Hold individual in-person workshops
 - Deliverables:
 - Slides and applicable materials
- Review and guidance of preparation of 2024 audit
 - Check-in with participants on data gathering, preparation for audit, and any questions
- Level 1 Validation of 2024 audit remotely
 - Level 1 Validations will be conducted according to the WRF 5057 Guidance
 - Remote sessions via Microsoft Teams application
 - Deliverables (for each participating water purveyor):
 - Level 1 Validated Water Audit (.xls format)
 - Validation Notes and Recommendations (.pdf format)
- Level 1 Validation of 2025 audit remotely
 - Level 1 Validations will be conducted according to the WRF 5057 Guidance
 - Remote sessions via Microsoft Teams application
 - Deliverables (for each participating water purveyor):
 - Level 1 Validated Water Audit (.xls format)
 - Validation Notes and Recommendations (.pdf format)

Phase 2 of the pilot program will provide one utility, the Livingston County Water and Sewer Authority, with Level 2 validation of water balance with uncertainty analysis, non-revenue water economic analysis and non-revenue water program design. Phase 2 objectives will be to prepare an effective, achievable strategy for successful transition to a comprehensive water loss control program.

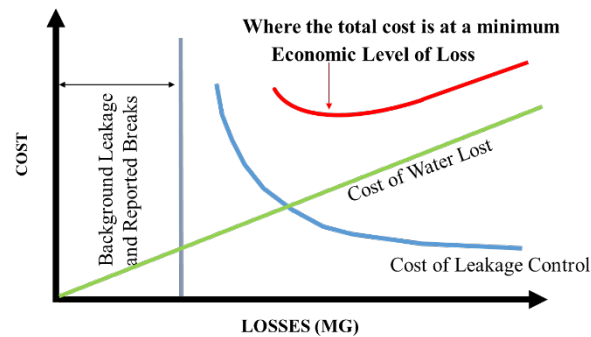
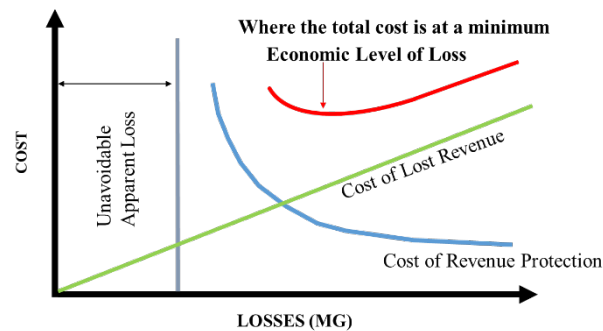
Phase 2 Program Tasks/Deliverables - LCWSA

Level 2 Validation of Water Balance with Uncertainty Analysis

- Coordination with Production/IT staff to extract detailed historical supply volume database(s);
- Detailed analysis of same for identification of trends, anomalies and areas of concern;
- Flowcharting of existing business processes from meter reading to customer billing;
- Coordination with Billing/IT staff to extract detailed historical customer consumption database(s);
- Detailed analysis of same for:
 - Development of customer consumption profile for use in composite retail rate calculation;
 - Development of customer meter profile for use in NRW Program Recommendations;
 - Development of consumption profiles to identify trends, anomalies and areas of concern;
 - Validation of consumption totals by account, customer class, rate code, and monthly global totals;
 - Assessment of lag-time adjustments needed for the 12-month water balance;
 - Assessment of 95% statistical confidence limits of the water balance at the component and aggregate levels to provide a confidence band (+/-) on the NRW components;
 - Assessment of any validity improvements needed to support advanced NRW control efforts;
 - Main line & service line break data for use in the development of a component analysis of real losses.
- Level 3 Validation (as needed)
 - Coordinate with the Owner and/or their technical assistance providers in the collection of:
 - Finished Water Meters
 - Electronic Calibration
 - Flow Accuracy Testing
 - Customer Meters
 - Small meter test results
 - Large meter test results

Non-Revenue Water Economic Analysis

- NRW Gap Analysis
 - Evaluation of current practices and policies against best-practices detailed in the M36 Manual;
 - Preliminary economic analysis to determine cost of current NRW program versus cost of optimized NRW program, to establish preliminary business case and prioritization of NRW components;
 - Development of NRW component mapping and economic analysis for preliminary target setting:
 - Unbilled Consumption components;
 - Apparent Loss components with emphasis on optimizing metering losses;
 - Real Loss components with emphasis on optimizing unreported losses;
 - Aggregated NRW economic target setting;



- Final Report
 - Prepare a summary report including
 - Economic analysis of NRW cost & revenue recovery;
 - Recommendations for areas of improvements and next steps on enhancement of overall NRW management;

Non-Revenue Water Program Design

- Design of near- and long-term NRW Program recommendations for the management and reduction of Non-Revenue Water, and improvements in system efficiency

- benchmarking and Data Validity;
- Evaluation of existing demand management program, and gap analysis for long-term conservation objectives;
- Incorporation of long-term water loss management (supply side conservation) objectives into overall utility demand forecasting;
- Development of Program implementation plan, with prioritization and benefit/cost estimations.

Water Loss Summit Tasks/Deliverables

- Host a summit to cover the following water loss topics:
 - National Landscape
 - New York state perspective
 - Program highlights and results
 - Panel discussions
 - Small break-out groups
- Deliverables:
 - Slides and applicable materials