

Stewards of the Environment **

December 21, 2017

Town of New Hartford Asset Evaluation Team 530 Main Street New Hartford, CT 06057

Attention: Christine Hayward, Administrative Assistant

Dear Members of the Asset Evaluation Team:

Aquarion Water Company of Connecticut (AWC) is pleased to submit the enclosed Bid to acquire both the drinking water and wastewater assets of the Town of New Hartford. Our cost proposal, preliminary clarifications and assumptions for the asset purchase are included as Section 4. As requested in the RFP, enclosed is a Bid Bond in the amount of \$10,000.

Aquarion is the largest investor owned utility (IOU) that provides water and wastewater services in Connecticut and the New England region. Our customer base in Connecticut includes over 196,300 customers with an estimated population of over 650,000. Our service area encompasses 51 cities and towns throughout Connecticut. New Hartford is strategically located in the middle of the AWC Northern Division, and the operations of the New Hartford's water and wastewater will be integrated into the Northern Division.

Our Proposal includes a systematic analysis of both the New Hartford water and wastewater systems, and focuses on potential avenues to expand the customer base to reduce the financial burden on the Town and the current customers. There are a number of complicating issues that need to be resolved as part of the New Hartford asset sale. AWC is committed to working with the Town to address these issues and to successfully execute an asset sale that is beneficial to both the Town and AWC.

You may contact me via my office phone (203-336-7650), cell phone (203-673-4419) or email (dmorrissey@aquarionwater.com) at any time of the day. In addition, Michael Crawford is our technical lead and can be contacted directly via cell phone (207-650-2906) or email (mcrawford@aquarionwater.com). Aquarion is excited about the prospect of partnering with the Town of New Hartford, the Asset Evaluation team and the WPCA. Please do not hesitate to call or email if you should have any questions or desire clarification.

Very Truly Yours, Donald J. Morrissey

Donald J. Morrissey Executive Vice President and Chief Financial Officer

203.336.7650 phone 203.336.5639 fax

dmorrissey@aquarionwater.com



PROPOSAL FOR THE PURCHASE, OPERATION AND MAINTENANCE OF DRINKING WATER AND/OR WASTEWATER ASSETS FOR THE TOWN OF NEW HARTFORD, CONNECTICUT

Prepared For Town of New Hartford 530 Main Street New Hartford, Connecticut 06057

Submitted By Aquarion Water Company 835 Main Street Bridgeport, Connecticut 06604

December 21, 2017

Proposal for the Purchase of Drinking Water and/or Wastewater Assets Town of New Hartford, Connecticut

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SECTION 1 SUBMITTAL COVER SHEET

TO PURCHASE, OPERATE AND MAINTAIN DRINKING WATER AND/OR WASTEWATER SYSTEMS OF THE TOWN OF NEW HARTFORD, CONNECTICUT

Proposal Due Date: 1:00 PM, Thursday, December 21, 2017

Anticipated Award: Within 120 Days of Bid Opening

SUBMITTED BY:

Name of Entity: Aquarion Water Company of Connecticut

Address: 835 Main Street Bridgeport, Connecticut 06604

Telephone Number: 203-336-3650 (office) 203-673-4419 (cell)

Principal Contact: Donald J. Morrissey

Title: Executive Vice President and Chief Financial Officer

Hours of Availability: 8 AM to 6 PM

E-mail Address: <u>dmorrissey@aquarionwater.com</u>

Check Each Box That Applies to Your Bid:

Water System Bid:

Sewer System Bid:

Combined System Bid: X

SECTION 2 EXPERIENCE IN THE BUSINESS

2.1 History of Aquarion Water Company in the Water Business

Aquarion's roots in the water utility field are over 150 years deep, dating back to the creation of the Bridgeport Hydraulic Company (BHC), the precursor to the Aquarion Water Company (AWC), in 1857. The initial growth of the company was sluggish during and after the Civil War, but during the World War I and II periods the company grew significantly as a result of the construction of a series of reservoirs that allowed the company to provide over 45 million gallons per day (mgd) of drinking water primarily throughout Fairfield County.

After World War II the company continued expanding to meet the trend of suburban growth, and also began developing underground aquifers such as the Housatonic Well Field in Shelton, Connecticut. In the 1960's the company expanded into Litchfield County when it acquired five small water companies; in 1963 AWC acquired the Seymour Water Company in expanding our service area to include three communities in the Lower Naugatuck River Valley; and in 1984 the Stamford Water Company was acquired. In April 1991, BHC changed it's name to Aquarion Water Company. Acquisitions continued in the 1990's when AWC purchased the Kent Water Company, the Ridgefield Water Supply Company, and the New Canaan Water Company. AWC's water utility business soon doubled when it acquired four systems from American Water. AWC continues to grow, acquiring individual water systems strategically located to our service areas. Since 2011 AWC has successfully integrated 67 systems adding more than 11,000 new customers.

AWC's most recent change in ownership was finalized on December 4, 2017 when Eversource Energy, the largest energy utility in New England, acquired AWC, the largest water utility in New England. This transaction combines two companies that are leaders in providing critical infrastructure to New England residents and businesses. As part of Eversource, AWC now has access to additional resources it can direct toward further strengthening infrastructure, improving efficiencies and expanding its service area.

Today, AWC provides drinking water to a population of over 650,000 within 51 cities and towns throughout Connecticut, as well as customers in Massachusetts and New Hampshire. The staff of AWC consists of engineers, scientist and technicians with specialties in water planning, water supply, water quality, surface water and groundwater treatment, distribution and water main engineering and construction, fire protection and the full range of support services from meter reading, billing and collection to customer call centers. Across its operations, AWC strives to act as a responsible steward of the environment and to assist the communities it serves in promoting sustainable practices. Aquarion's mission is to be the service provider, employer and investment of choice through a relentless commitment to excellence.

2.2 Current Operations and Areas Served

AWC of Connecticut, an Aquarion subsidiary, is the public water supply company for approximately 196,300 customer accounts or more than 650,000 people in 51 cities and towns throughout Connecticut's Fairfield, New Haven, Hartford, Litchfield, Middlesex, and New London counties. New Hartford is strategically located in the middle of the AWC-CT Northern Division as shown on Figure 1, and the operations of the New Hartford water system would be integrated into the Northern Division.

As requested, Table 1 provides a breakdown of the Aquarion operations from a geographic and regional perspective and identifies the areas served, the number of customers and the estimated population.

2.3 Contracts and References from the Past Five Years

We are providing five trade references for the Asset Evaluation Team (AET) to contact to gauge "how Aquarion Water conducts business." Written referrals for two of these references are included within Attachment A. Two of the references are related to the acquisition of water systems within Connecticut and the other three references are related to wastewater operations.

Reference No. 1: Ron Black, President Ron Black Water System Solutions and Design; (860)274-8853; <u>ronwblack@msn.com</u>; Former owner of 16 water systems, including West Shore Association and Meckaur water system, sold to AWC between 2012 to 2016.

Reference No. 2: Joseph "Josh" Cansler, General Manager South Central Water Authority, (860)464-0232; <u>i.cansler@waterauthority.org</u>; Coordinated the sale of the Lantern Hill water system to AWC in 2016.

Reference No. 3: Bill Finch, Former Mayor of Bridgeport, CT; (203) 333-2000; <u>finchbt@gmail.com</u>; Wastewater Contract Operations in Bridgeport, CT

Reference No. 4: Paul Timpanelli, President and CEO of Bridgeport Regional Business Council; (203) 335-3800; <u>timpanelli@brbc.org</u>; Wastewater Contract Operations.

Reference No. 5: Denton (Bud) Butler, New Hartford Water Pollution Control Authority Chairman, (860) 485-8647; budbutlercpg@sbcglobal.net; Wastewater Contract Operations in New Hartford, CT.

2.4 Customer Satisfaction Ratings

AWC is among the most respected in the water industry, repeatedly receiving top customer favorability ratings, occupational safety awards, outstanding performance and achievement awards and recognition for participating in the Partnership for

Safe Drinking Water by the American Water Works Association (AWWA). A few notable awards include the following:

- AWC has the best customer service record measured by the fewest customer complaints recorded by PURA across all utilities for the past 10 years running.
- Last year Aquarion was recognized by J. D. Power securing the highest score among investor owned water utilities and the fifth best water utility in the entire United States based on customer satisfaction.
- AWC was named one of the best places to work in Connecticut by Hearst Media in 2011, 2013, 2015 and 2017.
- For the third time in four years AWC received an award "For Outstanding Performance and Achievement" by the state Department of Environmental Protection. The criteria used to select the top performing water systems includes overall water quality, adherence to state regulatory compliance for over 90 contaminants, and going above and beyond regulatory requirements.
- AWC was presented the Occupational Excellence Achievement Award from the National Safety Council for achieving a 50 % reduction in lost time accidents over a four year period.
- AWC has three Water Treatment Plants (WTPs) that have received the Director Award as part of the AWWA Partnership for Safe Drinking Water. The goal of the Partnership is to provide enhanced public health protection by implementing prevention programs that are not required by current legislation and/or regulations.

2.5 Current Rates

AWC rates within Connecticut are established by division and are reviewed and approved by the Connecticut Public Utilities Regulatory Authority (PURA). Attachment B provides a detailed listing of AWC – CT user rates by Division. As an example, the current rates for the AWC - Northern Division are \$38.67 per quarter for a 5/8-inch meter and the water consumption charge is \$3.272 per thousand gallons. For a typical family that consumes 72,000 gallons per year (empirical industry volume often used for comparative purposes), the estimated annual charge is \$390. For comparative purposes, Figure 2 was prepared to show the relative variation in annual water charges for a number of Connecticut Towns and water suppliers assuming a typical residential family consumes 72,000 gallons per year. For the roughly 575 water customers in New Hartford, a typical family consuming 72,000 gallons per year, would have an annual charge of \$708. A primary observation from Figure 2 is that the AWC – Northern Division rates are among the lowest in the state and roughly 45 percent of the current New Hartford water rates, while the AWC – Eastern Division rates are roughly 67 percent of New Hartford rates. It should be noted that as part of AWC's last rate case, PURA determined that future asset purchases by AWC would be based on the existing AWC – Eastern Division rates.

Over the years AWC has served as the Contract Operator for wastewater systems (similar to our current contract with the Town of New Hartford) throughout New England. However, AWC does not currently own wastewater assets within Connecticut and therefore we do not have a historical listing of rates similar to the water assets under AWC ownership. AWC staff are experienced in the preparation of rate studies, user fee analysis and bond studies for wastewater systems, and have a thorough appreciation for the sensitivities related to establishing user fees for a wide variety of systems. As discussed later in this Bid document, specific to wastewater rates in New Hartford, the high level of debt necessary to finance the WPCF Upgrade in 2010 and the relatively few customers (estimated at about 339 equivalent users) has resulted in one of the highest wastewater user fees in the state. A key challenge to reducing these rates is to grow the number of customers and increase the flow to the WPCF thus directly reducing the financial burden to the Town and the users.

2.6 Rules and Regulations that Govern Relationships with Customers

As the largest water utility in Connecticut, AWC has developed and amended the Aquarion Water Company of Connecticut Rules and Regulations on a number of occasions. Any changes or modifications to the Rules and Regulations are approved by PURA. A copy of the Aquarion Water Company Rules and Regulations, that were last adopted in March 2013, are included as Attachment C.

2.7 Other Information to Support the Selection of Aquarion Water Company

The following paragraphs outline a number of distinguishing features specific to AWC acquiring the water and wastewater assets of the Town of New Hartford.

A. Expertise in Implementing Operational Efficiencies

Over the past 16-months the staff of AWC has successfully operated and maintained the WPCF and the collection system assets of New Hartford. The Incentive Payment memorandum included as Attachment D highlights a number of cost savings implemented by the AWC staff at the WPCF. **Collectively these savings represent about 17 percent of the wastewater budget elements not associated with labor, non-routine services and debt retirement.** Below are a few of our accomplishments:

• **Process Optimization.** AWC operators improved the operations of the auger screen, grit chamber, SBR process control, tertiary filters, equalization

tank operation, and the UV disinfection system during the first year of our contract operations.

- **Sludge Disposal Savings.** AWC reduced the number of sludge truck loads from 53 to 31 in FY 2016-17 (\$15,180 cost savings) and anticipate reducing the number of trucks to between 12 and 15 in FY 2017-18.
- **Electrical Cost Savings.** AWC changed the process control operations of the SBR process and reduced the annual WPCF electrical costs by 9 percent (representing a \$5,023 cost savings).
- **UV Disinfection Improvements.** AWC conducted an optimization study and implemented changes in flow patterns to the tertiary filters and UV disinfection process that allowed a reduction in the number of UV lamps from 48 to 16.
- Equalization (EQ) Tank Cleaning. AWC operators were trained in confined space entry and were able to perform EQ tank cleaning (that had not been completed for six years) and save the WPCA about \$6,300 in third party contracts.
- **Standby Power Coordination.** When the standby generator failed at the WPCF, AWC was able to communicate with the CTDEEP and arrange for the mobilization of an AWC generator from another site. The contingency plan coordinated by AWC resulted in about a \$15,000 savings to the WPCA.

Although AWC has not operated the New Hartford water assets, our operators have extensive experience in groundwater supplied systems throughout Connecticut. We are extremely comfortable in transitioning to operate the water system. As part of the transition on the water side, AWC has identified three areas to consider for operations efficiencies: automation of the water supply and treatment systems by upgrading the SCADA and I&C systems (thus eliminating seven days per week onsite monitoring); identification and reduction of the unaccounted for water; and optimization of the wellfields to minimize the need for both wellfields being on-line as regularly as they have in the past.

B. Technical Planning and Implementation

AWC has an unparalleled bench of experienced engineers, operators, and water and wastewater technicians. The capabilities of this group assures that there is adequate planning, the systems are reliably operated and the finished product is in compliance with state and federal standards. Examples specific to our contract in New Hartford include:

- **NPDES Permit Renewal.** AWC staff prepared the NPDES permit renewal that otherwise would have cost \$15,000 for a consultant to prepare. There were only nominal expenses to the WPCA for the permit renewal.
- **Condition Assessment Study.** AWC's ConOps transition in New Hartford was difficult due to the lack of cooperation of the previous operator. In addition, no records specific to the type and condition of the assets were provided. During the first 6-months on-site, AWC prepared a WPCF System Performance and Condition Assessment report to document the extent and condition of the assets. There were no charges to the WPCA for this report. A copy of the Table of Contents of the Condition Assessment report is included as Attachment E.
- **Hydraulic Analysis of 219 Pump Station.** AWC completed a hydraulic analysis and a preliminary Basis of Design assessment for the 219 pump station. This analysis included a review and field assessment of collector sewers tributary to the Route 219 pump station and a review of the Jones Mountain trunk sewer. There were no charges to the WPCA for this analysis.
- **UV Optimization Study.** The UV system was in disrepair when AWC assumed responsibilities at the WPCF and further the mode of operation required all three channels with 48 lamps to run continuously. AWC conducted a pilot demonstration during the non-disinfection season and successfully convinced the CTDEEP to allow only a sinlge channel to be run in 2017. Throughout the entire disinfection season there were zero positive occurrences for coliform in the treated effluent. There were no charges to the WPCA for this pilot demonstration study.

C. Public Private Partnership Approach

There are a number of complicating issues that will need to be resolved as part of the New Hartford asset sale. These include debt retirement, potential grant repayment, and expansion of the sewer system to increase the customer base. AWC is committed to working with the Town to address these issues and to successfully execute an asset sale that is beneficial to both the Town and AWC.

D. Resources of AWC and Eversource

AWC is the largest water utility in New England and Eversource is the largest electric utility in New England. Combined, the resources from AWC and our parent company (with a market capitalization of \$21 billion) are second to none in the water business.

SECTION 3 STATEMENT OF ABILITIES AND INTENT

3.1 Manpower and Resources to Purchase, Operate and Maintain the Assets

Water System. The State of Connecticut Public Health Code requires all community water systems (CWS) to have at least one CTDPH certified treatment plant operator and a CTDPH certified distribution system operator. Operation and maintenance of the water assets will be the responsibility of the AWC Northern Division. These services include routine O&M for the two wellfields and treatment plants, two storage tanks, hydrants, distribution network, CBYD coordination, meter reading, water and sewer billing, system flushing and non-routine call-outs to respond to alarms during non-work periods. Water operators available from the AWC Northern Division to support the New Hartford operations include Kirk DuCharme, Don Poudin, Chris Kushwara and Peter Passeck.

Wastewater System. Operation and maintenance of the New Hartford wastewater assets is currently provided by AWC. These services include routine O&M for the WPCF and three pump stations, Call Before You Dig (CBYD) coordination, and nonroutine call-outs to respond to alarms during non-work periods. Staffing of wastewater treatment facilities within Connecticut is specified by the CTDEEP. For New Hartford, the WPCF is rated as a Class III facility and therefore the chief operator must be a Class III or higher and the shift operator must be a Class II or higher. The current operators (Derek Albertson – Class IV and James McCabe – Class II) will be retained as the wastewater operators after the asset sale.

Billing and Customer Services. In addition to the water and wastewater operation services, AWC will also provide call center assistance, billing and meter reading, and general customer service support. Each of these services is inherently provided to the 51 systems that AWC manages on a day-to-day basis in Connecticut. These services are discussed in greater detail in Section 3.4.

Synergies and Resources. Although the licensing and reporting for the water and wastewater systems are coordinated by different state regulatory agencies, we believe there will be synergies with AWC operating both systems in New Hartford. It is notable that two of our operators slated for the New Hartford operations (Derek Albertson and Kirk DuCharme) are pursuing both potable water and wastewater certifications. Further, as demonstrated by the AWC staff over the past 16 months in New Hartford, our operators are able to draw on specialized services within AWC such as instrumentation and controls (I&C), health and safety coordination, mobile generators and trucks, and the largest water system labor force within the New England region. Figure 3 shows the AWC Supply Operations organizational chart and highlights the Northern Division structure and the resources that will be

available to the water and wastewater users of the Town of New Hartford. Lastly, AWC as a subsidiary of Eversource, now has access to resources and financing to strengthen infrastructure, improve efficiencies, and expand the AWC service area.

Staffing. Key personnel proposed for the New Hartford operations are briefly outlined below and summarized in Table 2.

Michael A. Crawford, P.E. Assignment: Program Manager during Asset Transfer

Michael Crawford is a sanitary engineer with 40-years of experience in the design, evaluation and operation of WTPs and WPCFs. AWC acquired Mr. Crawford's consulting firm (Environmental Engineering & Remediation) in 2001. Since that time Mr. Crawford has been employed as a full-time employee or a consultant to AWC. In particular Mr. Crawford was intimately involved in the AWC ConOps contracts in Bridgeport (30 mgd and 12 mgd plants), Holyoke (17.5 mgd) and New Hartford. Mr. Crawford is a co-author of the Water Environment Federation Manual of Practice "Design of Municipal Wastewater Treatment Plants".

Dan Lawrence, P.E. Assignment: Technical Resource

Dan Lawrence is a water and wastewater engineer with 25-years of experience in the planning, design, and evaluation of WTPs, WPCFs, pump stations, booster stations, and water distribution and sewer collection systems. He has completed more than 50 wastewater water supply planning studies, 20 infiltration/inflow analyses, 25 pump station designs and 1,000's of linear feet of water main and sewer design. This experience includes assignments within New Hartford specific to the evaluation of newly installed sewers and implementing corrective action related to improperly installed sewers and manholes. Dan will coordinate all engineering support with the Program Manager and the water and wastewater operators.

John Herlihy Assignment: Laboratory and Analytical QA/QC

Mr. Herlihy is a microbiologist with over 40-years of experience specific to laboratory and analytical quality assurance/quality control for over 71 systems operated and maintained by AWC. He has served as the Director of Water Quality and Environmental Management for AWC over the past 15-years. John is a valuable resource to the operations team to assist in providing real time QA/QC support, particularly related to the myriad of analytical testing that is required on an annual basis.

Kirk Ducharme Assignment: Northern Division Manager Kirk Ducharme is a Connecticut Class IV Water Treatment and Class IV Water Distribution operator who manages the AWC Northern Division. All of the water and wastewater operators in the Northern Division report to Kirk. Mr. Ducharme is a graduate of the Massachusetts Maritime Academy and holds both a Bachelor of Science and a Master of Science in Natural Resources Management and Engineering from the University of Connecticut.

Derek Albertson Assignment: Wastewater Chief Operator

Derek Albertson is a Connecticut Class IV wastewater operator with 10 years of experience in plant operations and process control evaluations, employee training and troubleshooting wastewater operations. Derek formerly served as a consultant for several engineering firms and has a Master of Public Health degree from University of New Haven. Mr. Albertson directed the operations of the Bridgeport East Side 30 mgd full biological nutrient removal facility prior to accepting the Chief Operator position at the New Hartford WPCA.

Chris Kushwara Assignment: Water System Chief Operator

Chris Kushwara is a Connecticut Class IV Water Treatment and Class III Water Distribution operator with over 40-years of operational experience. Chris was recognized as the CTDPH operator of the year in 2016. Chris will serve as the Chief Water operator for AWC within New Hartford.

The AWC technical support bench is deep and well diversified. Aside from the individuals referenced above, other staff that we anticipate will support our operations team, particularly during the contract start-up and transition, include Jeff Ulrich (Director of Supply Operations), John Olenski (Instrumentation and Control Specialist), Yesher Larsen (Process Control Optimization), John Schultz (Manager of Mechanical and Electrical Support Programs) and Liz Camerino-Schultz (Director of Real Estate for AWC).

3.2 Projected Rate Structure for Initial Five-Year Period

As correctly noted in the RFP, future rates are subject to PURA review and approval. The current New Hartford water system rates (\$8.08 per 1000 gallons and \$31.64 per quarter for a 5/8-inch meter) will be sufficient to recover the full cost to operate and maintain the system and implement capital improvements. As a result, AWC will not propose any changes to the overall amount of the customer bill at the time of the transaction. Water rates will be based on the existing AWC Eastern rates plus a fixed surcharge to cover the difference between current New Hartford rates and current AWC Eastern rates. Future water increases resulting from AWC Connecticut rate proceedings will apply only to non-surcharge elements. Although the timing of future AWC rate proceedings is uncertain, it is expected that increases would be modest.

The current wastewater user rate is set at \$20.89 per 1000 gallons. Wastewater rates are expected to remain unchanged during the first five years of AWC ownership.

AWC, through regulation by PURA, must provide rates that are fair and equitable based on the cost of providing service to the various customer classes, and as such, there is not preferential treatment through water rates. AWC does offer a low income assistance program to help those customers who qualify. Details of the plan can be found at www.aquarion.com/ct/customerassistanceprogram. Additionally, AWC is willing to assist customers in finding ways to reduce their water consumption and the resulting bill. Available options have included water conservation and leak detection tips and techniques, water audits and even rebate programs.

3.3 Projected Capital Improvement Plan and Anticipated Schedule

Water System. The water assets in New Hartford are straight-forward and include two wellfields and the associated chemical feed systems for pH adjustment and corrosion control, one green sand filter for manganese and iron removal, one sodium hypochlorite feed system, two above ground storage tanks and about 61,000 linear feet of water distribution pipeline. Three items identified for implementation in 2017-18 are well rehabilitation for \$82,000 (that was completed by SB Church in November 2017); miscellaneous fire hydrant replacement and water main breaks at \$20,000; and repairs identified for the water storage tanks at a cost of about \$16,000. Inspection, cleaning, flushing and maintenance of the distribution pipelines have been sporadic in the past.

The WPCA has not formulated a 5-year CIP budget for the water system. Table 3 outlines a tentative CIP budget and schedule prepared by AWC. Improvements related to the treatment plant are fairly predictable and the budgets presented have a reasonable certainty. The annual CIP budget specific to the treatment plant varies from \$94,000 (during the 2017-18 year to address delayed capital expenditures or CAPEX) to \$22,500 with an average value of about \$30,000. As part of our valuation modeling, we have included a CIP budget of \$30,000 related to the treatment plant and the two wellfield assets.

The condition and expenses to maintain the distribution and storage facilities are not as predictable as the treatment facilities. It is suggested that a systematic inventory and mapping of the distribution system be addressed as a first step, followed by a prioritization for water line and hydrant cleaning, flushing and repair. Table 3 includes a five-year CIP related to the distribution and storage systems that ranges between \$40,000 and \$23,500 with an average annual investment of about \$30,000. The condition of the distribution network, of which as much as 50 percent is older than 120 years in age, may require higher levels of CAPEX to address water line replacement in the future. Over the years the WPCA has not implemented a significant pipeline replacement program. We have carried a \$30,000 per year CIP budget associated with the water storage and distribution network assets.

Wastewater System. The New Hartford WPCF System Performance and Condition Assessment report (see Attachment E) prepared by AWC includes an analysis of the condition of the wastewater treatment plant and pump stations as of September 1, 2016 when AWC assumed responsibility for the operation of these facilities. The WPCF was essentially overhauled and considered new as of December 2010. The majority of the mechanical equipment is new and any infrastructure that was reused was structurally evaluated and repaired as necessary. In general, the unit operations at the WPCF are in good condition, although the equipment is now seven years old. Five-year CIPs have not been developed by the WPCA, rather repairs have been addressed on a reactive basis and categorized as Non-Routine Repairs.

The Engineering Due Diligence review did not include an analysis of the condition of the collector sewers or pump stations. The three pump stations are all functional and the auto-dialers have been updated at two of the three locations. Pump No. 2 at Prospect Street needs to be pulled and repaired or replaced. In addition a second breaker needs to be installed to avoid frequent tripping when two pumps are run at the same time. The previously referenced CDM Smith Sewer Line Extension and Repair Evaluation report recommended that an analysis of the Route 219 pump station be completed due to the age of the station and its equipment. CDM Smith identified that the hydraulic capacity of the pump station may be an issue if there are additional flows to the system. In addition, the structural condition of the existing metal wet well was identified by CDM Smith as a concern. As previously noted, the volume and condition of the wet well, and the age of the pumps, control panel and instrumentation all suggest that the 219 pump station may require replacement in the near term, and definitely will necessitate replacement and upgrade as development occurs and greater flows discharge to this pump station.

The collection system is designed as a separate sanitary and storm water collection system (i.e., the system is not combined with overflows). The SSA maps were only recently pieced together and have not been field confirmed. Further, routine inspection, cleaning and maintenance of the collector sewers has not been implemented in the past. In general, information and data on the sewer collectors is not well developed.

The WPCA has not formulated a 5-year wastewater CIP budget. Table 4 outlines a tentative budget and schedule developed by AWC. Improvements related to the treatment plant are fairly predictable and the budgets presented have a reasonable certainty. The annual CIP budget specific to the treatment plant varies from \$72,300 (includes SCADA upgrade in FY 2019-20) to \$20,700 with an average value of about \$30,000. The CIP budget integrated to the WPCF valuation model is assumed at \$30,000 per year.

Relative to the collection system, it is suggested that a systematic inventory and mapping of the collection system be addressed as a first step, followed by a prioritization for sewer cleaning and repair. Table 4 outlines a five-year CIP related to the collection system that ranges between \$275,000 (includes 219 pump station wet well replacement in FY 2021-22) and \$22,500 with an average annual investment of \$35,000. A key unknown that could represent a high level of risk is the condition of the inverted siphon that crosses beneath the Farmington River and the condition of the wet well at the 219 pump station. It is recommended that inspections and a condition assessment of the 219 pump station be completed in the near term. AWC has already conducted a hydraulic analysis of the tributary sewers, the 219 wet well and pumping system, and the force main to the Jones Mountain trunk sewer. AWC has assumed an annual budget of \$35,000 for sewer inspections, cleaning and repairs.

3.4 Plan for Remediation, Expansion and General Customer Service

AWC is fully prepared to provide superior customer service to the water and wastewater customers in the Town of New Hartford. AWC uses an SAP technology platform that integrates cross-functional business processes to allow for a streamlined customer interaction. These cross-functional business processes include meter reading information, billing, customer service requests and notifications and the maintenance of customer interaction records. The following paragraphs provide an overview of AWC's capabilities in serving our customers.

Billing. Customer service begins with the billing process. It is the responsibility of this team to ensure that all customers are billed timely and accurately. The Supervisor of Billing ensures adherence to company policies (ex: back-billing and billing estimates) and state regulations. This team is also responsible for back-office review of completed field notifications in the administration of tasks such as new meter sets that result from periodic meter changes.

Customer Service. The Customer Service (CS) department handles all customer inquiries including customer phone calls and e-mails. This team is responsible for scheduling appointments for field work, resolving bill disputes, and explaining programs or services. Representatives coordinate payment arrangements, handle customer maintenance and prepare quotes for home sales and final bills. CS is in direct contact with our customers and coordinates with the Field Service department to schedule appointments for field visits. Any disputes and inquires relating to a state regulator may be forwarded for special handling to the Customer Advocate or a Supervisor. All CS back-office functions related to billing is handled by the CT Operations staff.

Collections. The Collection Department is responsible for the collection of accounts receivable. Accounts are reviewed by specific customer classification and aging in

order to focus efforts on those that may lead to further collection or legal action. In addition to using system-generated letters and statements to assist in collection efforts, as well as pre-recorded 35-45- and 65-day reminder calls, past due accounts may be tagged, and where regulations allow, water service terminated for non-payment. This team is also responsible for the accurate and timely application of all payments. This includes the lockbox transmission, various electronic payment transmission (Kubra & Checkfree), wire payments and field collections.

3.5 Potential Opportunities for Expansion and Increased Utilization

The WPCA was established as an enterprise fund with a rate structure based on fullcost pricing. In theory, the WPCA was to establish user costs that allow recovery of the full cost to operate and maintain the system, implement necessary CIPs, and pay the debt on outstanding loans. Our analysis indicates that the water system yields a modest positive cash flow while the wastewater system is significantly underfunded, primarily due to the cost of the WPCF upgrade in 2010 and the low number of customers connected to the sewer system.

Figure 4 shows the estimated user fee cost build-up for both the current water and wastewater user rates. The current wastewater user fee is roughly sufficient to cover the Routine and Non-Routine expenses, but does not provide funding for CIP, WPCA management fees, debt retirement or for developing a sinking fund. If the WPCA was to establish user fees for full-cost recovery assuming the current number of customers, we estimate that the wastewater user fees would need to be about \$40.49 per 1000 gallons if the entire WPCF loan is repaid by the WPCA (i.e., no Town subsidy) and \$31.03 per 1000 gallons if the WPCA assumes responsibility for the Self-Supporting level agreed by the WPCA and the Town (i.e., Town subsidizes WPCA by assuming about 22 percent of the WPCF upgrade loan).

Both Torrington Water and AWC have implemented cost saving programs in the last year to reduce 0&M costs. While there are still additional operation efficiencies to consider, unfortunately the magnitude of further 0&M cost savings will not bridge the revenue and expense gap that exists, particularly related to the wastewater system. It is critical to implement expansion of these systems in order to increase the number of users and the associated revenues, otherwise the WPCA will continue to run in the red and the town via taxpayers will need to bail out the WPCA every year.

Water System. For the period January through October 2017 the average day demand was 107,632 gpd and the maximum monthly average demand was 131,356 gpd during the month of June. The five-year mean maximum day demand from 2000 to 2004 was 264,400 gpd. The water supply system has an average daily demand margin of safety of 4.2, representing an abundant water supply to readily meet current peak day demands and to allow the water system to be expanded if additional customers are identified.

In the RFP and documents reviewed as part of this bid, a number of potential wastewater system expansions have been identified. On the water-side of the ledger, the only potential project that involves expanding the water system is the development in the vicinity of the New Hartford Industrial Park. If this project moves forward, the development demand could result in about an additional 20,000 gpd of water.

Unaccounted for water has been as high as 30 percent of the total water supply in the past. The Water Supply Plan estimated Non-Revenue water at 18.8 percent and the unaccounted for water at 7.16 percent in 2004. Non-Revenue water was last analyzed from April through June 2016 and was estimated at about 18.6 percent. Reducing the unaccounted for water would result in increased utilization. One source identified by AWC is to reduce the amount of water used at the WPCF, which is metered but not billed, and we suspect has not been identified as an unaccounted for water source. AWC estimates that about 90 percent of the 3,200 to 3,500 gpd consumed at the WPCF is related to the washing at the influent screening unit operation. AWC is attempting to optimize this unit operation and to reduce the quantity of water consumed by changing the frequency and duration of the wash water cycle. Further, it is possible to replace the potable water source with plant water (i.e., treated effluent from the WPCF) and essentially eliminate this consumption.

An additional utilization improvement being considered by AWC is to allow remote monitoring and control of the water system by upgrading the SCADA and instrumentation and controls. This would eliminate the current situation in which operators are on-site seven days per week.

Wastewater System. The current wastewater revenues are insufficient to pay for the expenses related to the wastewater system. Revenues are lagging significantly primarily because the current flow to the WPCF is only about 10 percent of the average design capacity of the plant.

While it is unlikely that wastewater flows will increase 10 fold anytime soon, the WPCA and the Town have identified a number of potential developments that are in the investigative or preliminary planning stage that could occur in the next three to five years. These include:

- Requiring current abutters to the sewer system throughout the Town to connect. It is estimated that 38 such properties exist that could result in an additional 5,000 gpd (128 gpd per connection).
- Developers in the vicinity of the New Hartford industrial park are exploring the possibility of 20 to 25 single family units, 80 to 100 working man's apartments, 50 to 60 senior units for a total of roughly 18,000 gpd of future growth (150 units at average rate of 120 gpd).

- The CDM Sewer Line Extension and Repair Evaluation identified 79 connections at 180 gpd/connection (14,200 gpd) in the Cottage Street area and 106 connections at 180 gpd/connection (19,000 gpd) in the Pine Meadows area for a combined average flow of about 38,200 gpd.
- Although not as likely as the Cottage Street and Pine Meadow areas, another potential sewer extension identified by CDM is for 125 units for the developer funded Greenwood Street extension for a projected flow of about 13,100 gpd.

Not including the Greenwood Street extension, the composite of these potential extensions could approach 56,200 gpd, for a total flow inclusive of existing flows of roughly 100,000 gpd. Such an increase in flow would likely more than double revenues at the current user rate.

A second potential avenue for enhanced revenue generation is to explore accepting dilute septage, wastewater from commercial or residential holding tanks, or other compatible sources of wastewater such as landfill leachate that would not have a high probability of odor generation or require significant pretreatment. AWC has initiated contact with local haulers, the Ski Sundown basin, and several other potential sources that could haul acceptable wastewater to the WPCF for processing. Concentrated septage cannot be treated at the WPCF and will not be considered as a potential revenue source.

To summarize the criticality to expand the wastewater system, Figure 5 was prepared to show the relationship between flows (i.e., the number of customers) and the resulting user fees. This analysis recognizes that some expenses are linear (such as sludge disposal) but most operational costs are not linear (for instance electricity and labor) and therefore as flow increases operational efficiencies are improved and this in turn allows a significant reduction in user fees (or allows greater debt retirement, etc.).

3.6 Innovative Ideas, Concepts, and Processes that Would Accrue to the Users and Tax Payers of New Hartford

AWC is dedicated to working with the Town, the WPCA and the Asset Evaluation Team (AET) to identify and implement innovative ideas to provide high quality potable water, effective wastewater collection and treatment, increased revenues and reduced operational costs. Below are a number of benefits to the users and taxpayers of New Hartford as a result of the asset purchase.

Offer Allows Town to Retire 100 Percent of Outstanding Wastewater and Water Debt. The outstanding water and wastewater debt is projected to be \$3.868 million as of June 30, 2018. The AWC offer would allow the Town to retire the

entire debt, inclusive of the Town subsidization of the WPCF loan (\$87,500), and then apply the \$4.132 million in excess of the outstanding debt to fund expansion of the sewer collection network. For taxpayers that are not on the water or wastewater system, it is estimated that between \$2.34 million (based on the Self Supporting Debt Schedule) and \$3.16 million (assuming no debt payment from the WPCA) in debt to subsidize the wastewater assets would be retired and no longer charged to the tax base.

Asset Purchase Allows the Town to Exit the Water and Wastewater Business. An asset purchase transfers ownership and responsibility for operation and maintenance to a private company that specializes in the water business. Essentially this allows the Town to monetize it's water and wastewater assets. While we would encourage the WPCA to continue as the liaison between AWC and the Town, the responsibility and <u>risks</u> associated with the day-to-day activities would be transferred from the Town and the WPCA to AWC.

PPP to Assist the Town Increase the Number of Customers. As outlined in Section 2.7, AWC will serve as a partner to the Town to work together to expand the collection and distribution networks. We anticipate working together to interface with regulatory agencies, funding agencies, grant preparation, etc. in an effort to produce a win-win situation. AWC recognizes the importance of expanding the customer base particularly for wastewater services and anticipates the \$4.132 million in excess of the Town debt to serve as the catalyst for sewer expansion.

New Sources of Property Taxes for the Town. The current water and wastewater properties do not contribute to the Town's tax base. As a privately owned utility, AWC will be making investments in the water and wastewater assets and the Town will be the beneficiary of these future property tax payments.

Future Rates are Determined by PURA. Historically, the WPCA as a volunteer board, was responsible for setting both water and wastewater rates. Future rates will be determined by means of a highly regulated and thorough procedure that is overseen by PURA.

3.7 Use of Eminent Domain as It Relates to the New Hartford Assets

Eminent domain refers to the power of a state or federal government, municipality or other entity to take private property for public use while requiring "just" compensation to the original owner. The most common examples of property taken by eminent domain proceedings include government buildings and other facilities, public utilities, highways and railroads. Specific to the water industry, eminent domain proceeding may be necessary for the construction of storage reservoirs, storage tanks and other similar supply side operations.

Similar to the Town of New Hartford, as a private water provider AWC can use the power of eminent domain in the unique situation where the public good is

benefitted as presented in Connecticut General Statutes, Section 16-50. AWC has not pursued eminent domain proceedings since 1939 when the company constructed a series of reservoirs between 1920 and 1939 in Connecticut. Aside from the construction of reservoirs, AWC staff is not aware of any other situations in which the Company has used eminent domain proceedings to acquire property. It is AWC's opinion that eminent domain proceedings can be extremely contentious and would only be attempted as a last resort specific to a very unique set of circumstances.

SECTION 4 PROPOSAL AND PRELIMINARY TERMS AND CONDITIONS FOR ASSET SALE

4.1 Combined System Acquisition

AWC is willing to offer an asset acquisition price of \$8.0 million for the water and wastewater systems of the Town of New Hartford.

4.2 Clarifications and Preliminary Terms and Conditions

As part of the Due Diligence for this asset sale, there are a number of preliminary clarifications and assumptions. We have identified the issues below as a starting point to frame-up our discussions to consummate the Sale & Purchase Agreement.

Asset Purchase Agreement. The Town and AWC will execute a Sale & Purchase Agreement that is consistent with Attachment C of the RFP.

Assets. The water assets include the integrated groundwater extraction wells, treatment facilities, distribution mains/pipelines, and storage tanks as presented in Table 5. The wastewater assets include the integrated collector sewers, trunk lines, force mains, three pumping stations and the tertiary treatment facilities presented in Table 6. The storm water collection system is not integrated to the sanitary sewer system and is NOT proposed to be included as part of the water and wastewater asset sale.

No Encumbrances. All water and wastewater assets shall be free of encumbrances including outstanding loans and grants. We estimate that as of June 30, 2018 that about \$3,868,400 of loans borrowed by the Town for water and wastewater improvements will be outstanding. Tables 7 and 8 summarize the outstanding water and wastewater debt, respectively (we have assumed the debt for the Prospect Street Improvements is equally divided between the water and wastewater enterprises). It is assumed that proceeds from the asset sale would in part be used to retire the outstanding bonds. The AWC offer assumes no grant repayments are required on any of the water or wastewater system assets, or if repayment is necessary it is the responsibility of the Town.

Public Private Partnership (PPP). The Town and AWC will work cooperatively to encourage expansion of the water and wastewater systems such that greater flows will provide additional revenues that will stabilize customer rates. The PPP will focus on identifying opportunities to work with developers and to explore funding sources (such as STEAP grants, CDBG grants, USDA grants, etc.) to allow expansion of the water and, more importantly, the wastewater collection system. Such an arrangement would allow the Town to seek grants to defer the construction costs to extend the sewer system and to encourage the connection of new customers. Further the \$4.132 million in excess of the existing Town's water and wastewater

debt could serve as a catalyst to the Town for implementing sewer expansions similar to those identified in the RFP and the CDM Smith Sewer Line Extension and Repair Evaluation study. It would be difficult, if not impossible, for AWC as an investor owned utility to serve as the project developer to market new customers to connect to the sewer system. AWC is committed to working and assisting the Town to formulate a plan and to grow the customer base so that the existing customers are provided rate relief as a result of economies of scale. Although it would be desirable to grow the customer base to approach the wastewater design capacity of 400,000 gpd, our modeling identified a flow 100,000 gpd as a reasonable goal. AWC is open to meet with the AET to further develop this concept.

Property Tax Schedule. As a result of selling the assets to a private water company, the Town will receive property taxes from AWC. The parties will finalize a schedule to establish property taxes moving forward.

Due Diligence. AWC's obligation to purchase the assets is subject to AWC completing a due diligence review of the water and wastewater assets. All due diligence activities will be completed at AWC's cost.

Regulatory Approval and Permit Transfers. PURA, Department of Energy and Environmental Protection (DEEP), and the Department of Public Health (DPH) must all approve this Transaction in a form acceptable to the Seller and Buyer. In addition, the NPDES permit and groundwater abstraction permit will need to be transferred to AWC.

Land Transfers and/or Easements. There are two properties (Pine Meadows and the Black Bridge sites) that the Town owns related to the water assets that need to be transferred to AWC or an easement provided to allow the wellhead sites be used by AWC in perpetuity. The 2.3 acre WPCF site and the contiguous 0.33 acre parcel owned by the Town should be transferred to AWC. Relative to the three wastewater pump station sites, one is located on land owned by the Town and two are located on private properties. Easements will need to be assigned or conveyed to AWC. Easements for the water mains and sewers over private properties also need to be assigned to AWC.

MDC Lease Assignment. The property on which the two water tanks are located is owned by the Metropolitan District Commission (MDC) and is leased to the Town. Town must obtain consent of the MDC to assign the water storage tank lease to AWC. There is also an easement for piping and access to the tank site. It appears that along the access to the tank site, there are two parcels not owned by the Town and easements will need to be granted.

Capital Improvement Plan Implementation. Suggested water and wastewater system CIPs were presented in Section 3.3. AWC is committed to implementing this plan as outlined and updating and refining this plan on an annual basis. It should be pointed out that AWC has included monies to conduct a structural inspection of the

219 pump station wet well and replace the control panel structure and pump No. 1 during FY 2018. The timing for upgrading the wet well structure associated with the 219 pump station will be based on the inspection results and the timing for increasing the hydraulic capacity of the pump station. We have "penciled-in" replacing this station in FY 2022-23, although the actual timing depends on the structural condition and when development occurs and the hydraulic capacity of the station is exceeded. AWC has already conducted a preliminary Basis of Design to enlarge the wet well and replace the existing 5-foot diameter metal structure with a larger diameter precast concrete structure. The new control panel structure and pump will be designed to accommodate the anticipated future improvements to this station.

Miscellaneous Mapping and Water Supply Plan Preparation. The original water and wastewater system maps were destroyed and the maps available are a disparate collection of project specific developments that have not been updated or field confirmed. Further, the last Water Supply Plan for New Hartford was completed in 2005. AWC proposes to initiate a program for updating the maps and establishing system maps that would be consistent with the Town's Geographic Information System (GIS). In addition, AWC proposes to assist the Town prepare and finalize an up-to-date Water Supply Plan to be submitted to the CTDPH.

Incentive Payment. As part of AWC's current ConOps contract with the Town, AWC implemented a number of improvements that resulted in tangible cost reductions. The contract allows AWC to be reimbursed one third of those savings. Attachment D contains a memorandum summarizing roughly \$20,000 in cost savings during year one of the contract. AWC anticipates greater savings during year two as a result of lower sludge disposal costs and reducing the potable water usage at the WPCF (which represents about 17 percent reduction in the wastewater budget excluding labor, non-routine services and debt retirement). As part of the Sale and Purchase Agreement with the Town, AWC is willing to waive the incentive payments for both years.

4.3 Benefits of an Asset Sale to AWC Versus Continued Town Ownership

We have attempted to identify the benefits of an asset sale of the Town's water and wastewater systems throughout this Bid document. Table 9 is a final summary that highlights the advantages of an asset sale to AWC.

TABLES

TABLE 1. AQUARION WATER COMPANY CURRENT OPERATIONS, CUSTOMERS AND AREAS SERVED

	Total	Estimated
:	Customers	Population
Name Eactarn Divicion:	supplied	servea
Beacon Falls	1.388	3,452
Bethel	768	1,774
Bridgeport	29,738	146,680
Brookfield	1,452	3,765
Cornwall	61	95
Danbury	455	1,210
Derby	498	1,108
Easton	1,165	3,218
Fairfield	20,068	58,314
Goshen	63	157
Kent	367	591
Lakeville (Salisbury)	1,621	1,891
Litchfield	1,592	2,181
Middlebury	15	41
Monroe	4,231	11,491
New Fairfield	518	1,503
New Milford	4,110	8,561
Newtown	2,207	5,102
Norfolk	432	857
North Canaan	758	1,431
Norwalk	77	194
Orange	1	ω
Oxford	272	719
Redding	47	742
Seymour	3,765	9,263
Shelton	11,838	30,744
Sherman	121	312
Southbury	194	450
Stratford	18,297	51,384
Torrington	33	51
Trumbull	12,800	36,018
Washington	171	362
Weston	166	289
Westport	9,859	25,509
Wilton	1,286	3,400
Wolcott	105	289
Woodbury	669	1,202
Western Division:		
New Canaan	3,831	10,064
Ridgefield	3,289	8,507
Stamford	22,242	114,691

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aff or <u>ractor</u>	Member	Member	Member	Member	Member	Member	Member	Member	Member	[:] Member
AWC St Subcont	AWC Staff	AWC Staff	AWC Staff	AWC Staff	AWC Staff	AWC Staff	AWC Staff	AWC Staff	AWC Staff	AWC Staff
<u>Relevant Skills</u>	Program Manager, Water & Wastewater Design and Operations Experience for both WPCFs and Collection System Assets	Director of Engineering and Planning, WTP/WPCF, pump station and collection system design and operations	Laboratory and Analytical QA/QC Director for Aquarion Company	Serves as the Director of Land Management for AWC; coordinatess all land purchases, leases and easements	Serves as the Aquarion Northern Division operations manager; Excellent relationships with subcontractors in the region	WTP and Distribution operator; recognized as the CTDPH operator of the year in 2016	WTP and Distribution operator; maintains E1 certification for electrician	WTP and Distribution operator with training in SCADA and I&C	Serve as Chief Operator (Class IV); Extensive Experience with Biological Nitrification Removal (BNR); Well Respected by CTDEEP Staff	Serve as the Shift Operator with 3 Years Experience Specific to New Hartford WPCF
Years of Experience	42 Years	25 Years	40 Years	35 Years	11 Years	40 Years	30 Years	25 Years	10 Years	4 Years
Certifications/Licenses	Sanitary Professional Engineer	Sanitary Professional Engineer	State and EPA Certified Laboratory Coordinator	Director of Real Estate; Paralegal	Connecticut Class IV WTP; Connecticut Class IV Distribution	Connecticut Class IV WTP; Connecticut Class II Distribution	Connecticut Class III WTP; Connecticut Class III Distribution	Connecticut Class IV WTP; Connecticut Class II Distribution	Connecticut Class IV Wastewater Operator	Connecticut Class II WW Operator; Connecticut Class I Distribution
Education	M.S. Northeastern University; B.S. Rutgers University	B.S. Civil Engineering University of Massachusetts	B. S. Microbiology, University of Connecticut	8.S. Land Planning; Paralegal	B.S. MA Maritime Acadamey; B.S. and M.S. University of Connecticut	High School Graduate	High School Graduate	B.S. Biology, Middlebury College	M.A. Public Health, University of New Haven; B.S. Geology, University of Connecticut	Environmental Sciences, Middlebury College
<u>Staff Member</u>	Michael Crawford	Daniel Lawrence	John Herlihy	Liz Camerino-Schultz	Kirk Ducharme	Chris Kushwara	Don Poudin	Peter Passeck	Derek Albertson	James McCabe

TABLE 2. KEY PERSONNEL ABILITIES AND EXPERIENCE MATRIX

UNIT OPERATION	FY 2017 - 18		<u>FY 2018 - 19</u>		<u>FY 2019 - 20</u>		<u>FY 2020 - 21</u>		FY 2021 - 22		VENDOR
A. WALER OFFL ANU INFAILMENT FALLUTES 1. Pine Meadows Welifield Welifield Redevelopment Pump Replacement	\$33,000	3	\$10,000	[2]							Current Estimate - TWC Unidentified
pH and Usinfection Repairs Flow and የ&C improvements ביאלים אינטונגיול	\$1,000	(_2_)	\$1,000	(_2_)	\$1,000	33	\$1,000	(_2_)	\$1,000	(_2)	Unidentified Aaron or Equivalent
 black bridge weinfeld Weilffield Redevelopment 	\$45,000	(_1_)					¢10.000	(Current Estimate - TWC
Purity replacement pH and Disinfection Repairs					\$5,000	[_2_]	nnnínt¢				Unidentified
Fe/Mn System Upgrades Flow and Remote I&C Improvements	\$1.000	(2)	\$10,000 \$10.200	32	\$1,000	(2)	\$1.000	(2)	\$10,000 \$1.000	22	Unidentified Aaron or Fouivalent
3. Misc Annual Calibrations]]]]]	
Flow, P Tranducers, pH, Cl2, etc	\$2,000	(_5_)	\$2,000	(E)	\$2,000	(E)	\$2,000	(_E_)	\$2,000	۲ ۲	Aaron Associates
Generator Tune-Up/Maintain.	\$2,000 61 750	4	\$2,000 \$E00	33	\$2,000 6500	4	\$2,000 \$500	4 1	\$2,000 ¢E00	3 .	Tower Generator
Laboratory canor autori 4. Miscellaneous Permitting, etc.		S	nnet	3	nneć		nnet		nne¢		AIRE SCRUTTE
Water Supply Plan	\$2,500	(1)									
SUBTOTAL	\$87,750) }	\$35,700		\$16,500		\$16,500		\$16,500		
B. ANNUAL CONTRACTOR ASSISTANCE											
1. Electrical (7)	\$2,000		\$2,000		\$2,000		\$2,000		\$2,000		Addison Electric
2. Mechanical (8)	\$2,000		\$2,000		\$2,000		\$2,000		\$2,000		Blake's Mechanical
4. Instrumentation & Control (9) C. Billi Ding REDAIRS AND MAINTENANCE	\$2,000		\$2,000		\$2,000		\$2,000		\$2,000		Aaron Associates
 Miscellaneous Building Renairs 	1		\$5 000		,		Ţ		\$5 000		Linidentified CIPs on Buildings
SUBTOTAL NON-DISTRIBUTION RELATED	\$93,750		\$46,700		\$22,500		\$22,500		\$27,500		
D. PUMP STATIONS AND STORAGE TANKS											- - -
1. storage Tank inspections 2. Storage Tank Repairs	۔ \$16.000	(1)					, ,		\$6,000 -	Ĵ	CorrTech ROV Inspections Current Budget TWC
3. Booster Pumps R/R	\$2,500	2			\$2,500	(_2_)			\$2,500	(_2_)	Unidentified
E. DISTRIBUTION SYSTEM AND HYDRANTS											
 Distribution Mapping and Field Confirmation Buildent Boundanced Boundancet 	- -	, c ,	510,000 61 000	22		- - -				- - -	AWC GIS Support
 riguiant repair and replacement. Main Breaks and Repairs 	210,000 \$10,000	32	\$10,000	32	\$10,000	26	\$10,000	36	\$10,000	36	Unidentified Unidentified
4. Meter Repairs and Replacement	\$4,000	2	\$4,000	3	\$4,000	5	\$4,000	5	\$4,000	13	Unidentified
5. Contingency Unidentified Mains	\$5,000		\$7,500		\$5,000		\$7,500		\$5,000		Contingency Planning
SUBTOTAL DISTRIBUTION RELATED	\$39,500		\$33,500		\$23,500		\$23,500		\$29,500		
PROJECTED ANNUAL CIP COST	\$ 133,25	0	\$ 80,200		\$ 46,000	_	\$ 46,000		\$ 57,000	_	

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TABLE 3. FIVE YEAR WATER CAPTIAL IMPROVEMENT PLAN (CIP) PROJECTIONS

;0,200 \$ 41

WPCA Identified Budget
 - AWC estimate as place holder
 - AWC estimate as place holder
 - Amnual calibration by Aaron Associates or equivalent
 - Annual maintenance per Tower Generator
 - Annual raintenance per Tower Generator
 - Annual calibration program per Alert Scientific or equivalent
 - CorrTech Estimate at \$3,000 per ROV Inspection
 - Recognization of consulting work by Addison Electric or equivalent
 - Recognization of consulting work by Blake or equivalent
 - Recognization of consulting work by Aaron Associates

UNIT OPERATION	<u>FY 2017 - 18</u>	FY 201	<u> 3 - 19</u>	<u>FY 2019 - 20</u>		FY 2020 - 21		FY 2021-22		VENDOR
A. WASTEWATER TREATMENT FACILITY 1. Auger Monster (Screens)	1	3		\$2,000	7			\$5,000	(2)	JWC Muffin Monster
2. Aerated Grit Chamber	ı	·		\$8,000	(_3_)	ı		'		Need Confirmation
3. Influent Flow and Sampling	a	\$2,01	(⁴)	ı		\$2,500	(_2_)			Hach Flow Sampler/Ultrasonic
4. Influent Pump Station	ı	\$2,0	رم) ٥	•		·		\$5,000	(7)	Pump R/R
5. SBR Process Jet Motive Pump R/R Motor Operated Valves R/R I&C Improvements	- \$4,300 (_			- \$8,000	(_10_)	\$12,000	ີ	t		Blake/Gayle Quote Need Confirmation Fluidyne Proposal
6. EQ Tank Maintenance Annual Cleaning (12) EQ Pump R/R Aeration System Improvements Replace Filter Room Heater/Fan	\$1,500 \$1,500	\$1,5 -	8	\$1,500 \$9,000	〔13〕	\$1,500		\$1,500 -		AWC internal Equipment Rental Gayle Corp Addison Electric
7. Tertiary Disk Filters	·			\$2,500	(_15_)	t		£		NOVA WT Guidance
8. UV Disinfection Process (16) UV Lamp Replacement Ballast Replacement UV Sensor R/R	\$750 (\$500 (\$1,500 (17 18 19\$1,5	00 	- \$500 \$1,500	(_18_) (_11)			\$1,500 \$500	[17] [18]	Maher Corporation Maher Corporation Maher Corporation
9. Effluent Flow and Sampling	ŝ	ž		\$2,000		ş		\$2,000		Aaron Associates
10. Odor Control System	\$4,500 (- (_02		t		t		\$2,000	(_12_)	Bioderm
 Misc Annual Calibrations Flow, P Tranducers, DO SBR, etc Generator Tune-Up/Maintain. Laboratory Calibration Pressure Vessel Inspection SCADA/Computer Upgrade 	\$2,700 \$2,000 \$1,250 -	22 \$2,7 23 \$2,0 24 \$50	00 23 24) \$2,700) \$2,000) \$500 \$23,500	(22) (23) (24) (25)	\$2,700 \$2,000 \$500	(22) (23) (24)	\$2,700 \$2,000 \$500	(22) (23) (24)	Aaron Associates Tower Generator Alert Scientific - Aaron Associates

TABLE 4. FIVE YEAR WASTEWATER CAPTIAL IMPROVEMENT PLAN (CIP) PROJECTIONS

UNIT OPERATION	<u>FY 2017 - 18</u>	<u>FY 2018 - 19</u>	FY 2019 - 20	<u>FY 2020 - 21</u>	FY 2021 - 22	VENDOR
 CTDEEP/NPDES Permitting 5-yr Permit Renewal (26) Annual Fee to CTDEEP (26) 	\$1,500 \$2,000	\$1,500 \$2,000	\$1,500 \$2,000	\$1,500 \$2,000	\$1,500 \$2,000	CTDEEP CTDEEP
13. Contingency Unidentified WPCF	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	Contingency Planning
SUBTOTAL WASTEWATER TREATMENT	\$29,000	\$20,700	\$72,200	\$29,700	\$31,200	
 B. COLLECTION AND PUMP STATIONS 1. Sewer Mapping and Field Confirmation (27) 	\$10,000	\$5,000	\$5,000	\$5,000	\$5,000	Cost to Develop Sewer Maps
1. Pump Station FOG Removal (28) 2. Pumps R/R	\$2,500 \$2,500 (29)	\$2,500	\$2,500 \$2,500 (29	\$2,500] -	\$2,500 \$2,500 (29	Skip's and Emulsifier Purchase Historical based on Blake's
3. Control Panel R/R at 219 and Prospect	\$8,065 [30]	'		•]	Addison and Blake's
4. Wet Well R/R at 219	\$8,000 [31]	•	,	Ŧ	\$250,000	2_) Estimate Based on Lockheed Design
 Televise/Clean Sewers (33) Localized Sewer Repairs (34) 	\$5,000 \$10,000	\$5,000 \$10,000	\$5,000 \$10,000	\$5,000 \$10,000	\$5,000 \$10,000	About 2,900 LF of sewer per year
SUBTOTAL COLLECTION AND PUMPS	\$46,065	\$22,500	\$25,000	\$22,500	\$275,000	
C. ANNUAL CONTRACTOR ASSISTANCE (INCLUDE	D AS NON-ROUTINE OS	(W)				
1. Electrical (35)	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	Addison Electric
2. Mechanical (36)	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	Blake's Mechanicai
3. Pumps and PS (37)	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	Blake's Mechanical
4. Instrumentation & Control (38)	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	Aaron Associates
5. UPS Replacements (39)	ı	ŗ	\$1,500	ı	\$1,500	CDW
SUBTOTAL CONTRACTOR ASSIST	\$16,000	\$16,000	\$17,500	\$16,000	\$17,500	
D. BUILDING REPAIRS AND MAINTENANCE 1. Miscellaneous Building Repairs	\$0	\$5,000	\$0	¢	\$5,000	Unidentified CIPs on Buildings
PROJECTED ANNUAL CIP COST	\$ 75,065	\$ 48,200	\$ 97,200	\$ 52,200	\$ 311,200	

(12) - Tank cleaning based on AWC initiating on-site confined space entry and cleaning with equipment rental (8) - Assume Rebuilt 1 Pump @ \$4,000 and 1 pump used @\$10,000; New Pump at \$12,000 plus installation (32) - Estimated Cost for Replaceing Pump Station with Larger Concrete Wet Well, New Pumps and I&Cs (24) - Annual calibration program per Alert Scientific and pH meter and thermometer R/R per CTDEEP (16) - 16 lamps for Channel 3; 2 bailast for train 3; UV intensity sensor replacement for each channel [11] - PLC/HMI programming to allow blower No. 1 to be placed on-line per Fluidyne proposal (30) - Panel replacement at 219 PS per Addison Electric and PLC R/R @ Prospect per Blake's (26) - Annualized cost for 5-year permit renewal and annual fee to CTDEEP (31) - Estimate for conducting an assessment of the wet well per CorrTech 25) - Upgrade SCADA, computer and hardware per Aaron proposal (27) - Estimated annual cost to develop and confirm sewer maps Repair/Replacement (R/R) Level Sensors or Washing System
 - R/R bearings and/or screen water system (10)- R/R of Motor Operated Valve (MOV) associated with SBRs 28) - Annual FOG Removal using Skip's and cost for emulsifier (38) - Recognization of consulting work by Arron Associates (35) - Recognization of consulting work by Addison Electric (36) - Recognization of consulting work by Blake at WPCF (37) - Recognization of consulting work by Blake's at PS [34] - Estimate based on two localized repairs per year (15) - Unidentified I&C or motor repair on disk filters (33) - Estimated at 2,000 If per year or \$5,000/year (1.4) - New smaller 5-hp pump for UV Optimization (6) - R/R Instrumentation and Controls for Floats 23) - Annual maintenance per Tower Generator (22) - Annual calibration by Aaron Associates 17) - New lamps for Channels as necessary. (21) - Unidentified capital improvements (4) - R/R Sigma (Hach) Influent Sampler (19) - UV intensity sensor replacement (39) - Replacement of six UPS by CDW (5) - R/R Influent Ultrasonic Meters (13) - R/R existing _ hp pump (29) - PS Pump Replacement (3) - R/R aerated grit blower (20) - Proposal per Bioderm [18) - R/R for new ballast (7) - R/R Influent Pumps (9) - R/R Blower for SBR

Table 5. New Hartford Potable Water Facilities Design Data

<u>Parameter</u>

Design/Description

A. WATER SYSTEM AND ASSETS

Residential/Commercial Connections Estimated per Capita Consumption Industrial Connections Estimated Pop. Served Estimated Customers

Unaccounted for Water (April - June 2016) Average Day Demand (Jan - Oct 2017) Maximum Day Demand (2000 - 2004) Vaximum Monthly Average Demand **Historical Demand**

Pine Meadows Well (Nov 2000) State Diversion Permit Limit Combined Safe Yield Black Bridge Well Safe Yield

Water Treatment Plants, Storage and Distribution Treatment System Capacity **Treatment System** Pine Meadows Well Pump Capacity Back-up Power Motor Size

Black Bridge Well

71 to 77 gpcd None 1,400 569

107,632 gpd 131,356 gpd 264,000 gpd 18.60%

>200 gpm/288,000 gpd 265 gpm/381,600 gpd 465 gpm/669,600 gpd 315 gpm/454,000 gpd

NaOH for pH Control; No Disinfection Installed 1944/Upgraded 2000 200 gpm @ 348 feet TDH >200 gpm gpm 30-HP

Installed 1988/In Service 1996

On-Site 45 kW Generator (Propane)

Pump Capacity Motor Size	Treatment System	Treatment System Capacity	Back-up Power	
Pump Ca Motor Si	Treatme	Treatme	Back-up	

Storage Tanks Two Above Ground Tanks

Booster Pumps

Distribution Network Length Dimensions Age MDC Emergency Inter-Connection Description

200 gpm @ 370 feet TDH 30-HP Filtronics Mn Removal; NaOH for pH Control, NaOCI Disinfection 150 gpm On-Site 45 kW Generator (Propane)

One @ 175,000-gal; One @ 490,000-gal

Small Station for Several Homes/Manually Operated Station at Black Bridge Well to Elevate Pine Meadows to High Pressure Zone if Black Bridge not Operated

Approximately 61,000 Linear Feet of Main 2-inches to 12-inches in Diameter 50 % Estimated Prior to 1895 Interconnect to MDC Aqueduct - Abandoned No Longer in Service

Table 6. New Hartford Wastewater Facilities Design Data

Parameter

A. WASTEWATER SYSTEM AND ASSETS

<u>General Design Criteria</u> Average Design Flow/Peak Daily, gpd Current Avg. Influent Flow Range, gpd Current Average Influent Flow, gpd Max. Pk Day Design Flow, gpd Peak Hourly Design Flow, gpd Design BOD5 Load/Avg Conc (lbs/d/mg/l) Actual BOD5 Load/Avg Conc (lbs/d/mg/l) Design TSS Load/Avg Conc (lbs/d/mg/l) Actual TSS Load/Avg Conc (lbs/d/mg/l) Design TKN Loading/Avg Conc (lbs/d/mg/l) Actual TKN Load/Avg Conc (lbs/d/mg/l) Current Estimated Population Served Residential/Commercial Connections Industrial Connections Estimated Equivalent Residential Units (ERUs) Estimated Flow per EDU/Estimated Flow per PE I/I Contribution, gpd % System that is Combined

Wastewater Treatment Plant SPDES Permit Number Original Year Constructed Year of Updates Current Treatment Summary Preliminary Treatment Primary Treatment

Secondary Treatment

Design Data/Description

400,000 to 1,100,000 25,000 to 85,000 43,300 576,000 1,100,000

1,000 lbs/d/300 mg/l 133 lbs/d/400 mg/l 1,000 lbs/d/300 mg/l 133 lbs/d/400 mg/l 167 lbs/d/50 mg/l 17/lbs/d/50 mg/l 864 PE 209 + 124 = 333 None 333 130 gpd/52 gpcd to 57 gpcd Nominal None

CT 0100331 1965 Complete Update in 2010 Mechanical Screens, Aerated Grit Removal, Influent Pumping None Three Sequencing Batch Reactors each 130,000-gallons in Capcaity Manufactured by Fluidyne
Post Secondary Equalization Advanced Secondary Treatment Disinfection Treated Effluent Sampling and Flow Recording Septage Receiving and Pretreatment Sludge Management Sludge Management Sludge Pumping Sludge Pumping Sludge Pumping Sludge Quantity Odor Control System Ancillary Facilities Emergency Standby Generator Plant Water System Control Building and Process Laboratory Control Building and Process Laboratory Control Building and Process Laboratory Collection System Force Mains, If Gravity Sewers, If	gpm and 2 Plant Water Pumps Two Disc Filters by NOVA WT Three Ultraviolet Disinfection Channels Equipped with Trojan UV System Sigma Sampler and Ultrasonic Level Recorder 22,400-gallon Capacity Receiving Tank with No Mixers and One Pump Two 20,000-gallon Capacity Tanks with Fixed Mixers One Pump per Tank for Loading Hauled to Naugatuck Environmental Services (Veolia) as a Liquid Historically 4 Trucks/month @ 6,500-gal/truck; currently @ 1 truck/month In-Vessel Biofilters for Headworks, Aerobic Sludge Processing and Septage Pretreatment Cummins Generator 100% Plant Load (400 kW) Two Submersible Pumps at EQ Tank Process Control Laboratory and SCADA Setup Existing: 3 (210 gpm @ Route 44/219 and two small package stations)
Service Laterals, if Manholes Inverted Siphon/River Crossings	o,000 ??? One at Route 219 Bridge
Combined Sever Overflows Combined Sever Overflows Staffing Administrative/Superintendent WWTP (Operations, Dewatering, Other) Maintenance (Pump Stations/WWTP) Support (Laboratory/Grounds, etc) Collector Severs (Highway Div PWD)	One at Koute 219 bridge None Reported No Recognized Charges Two Contract Operators - Aquarion Water Company Included Above Included Above Included Above

Table 7. Water Enterprise Debt Repayment Schedule

SYSTEM DERT		<u>P&i</u>	\$43,404	\$43,332	\$43,260	\$43,188	\$43,115	\$43,043	\$42,971	\$42,899	\$42,826	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$41,149	\$40,653	\$9,008	\$8,825	\$981,461						
TUTA! WATER		Balance	\$602,500	\$586,209	\$569,256	\$551,613	\$533,250	\$514,130	\$494,222	\$473,491	\$451,900	\$429,409	\$407,584	\$384,776	\$360,942	\$336,035	\$310,008	\$282,809	\$254,387	\$224,685	\$193,647	\$163,213	\$127,318	\$91,898	\$54,884	\$16,701	\$8,445	•						
r (See Note 1)		<u>P&1</u>	\$2,255	\$2,183	\$2,111	\$2,039	\$1,966	\$1,894	\$1,822	\$1,750	\$1,677																	\$17,697	/ements					
Water and Server		Interest	\$650	\$578	\$506	\$434	\$361	\$289	\$217	\$145	\$72																	\$3,252	and Water Improv		Y2026 (30 yrs)	*	SDA	0.05435
Prosnert Street		Principal	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605																	\$14,445	rospect St Sewer	rincipal: \$96,300	lates: FY1996 to F	tterest Rate = 4.5	unding Source: U	actor:
		Balance	\$14,445	\$12,840	\$11,235	\$9,630	\$8,025	\$6,420	\$4,815	\$3,210	\$1,605																	•	۵.	4	6	-	Ľ	u.
	,	Total	\$9,008	\$9,008	\$9,008	\$9,008	\$9,008	\$9,008	\$9,008	800,62	\$9,008	\$9,008	\$9,008	\$9,008	\$9,008	300,6\$	\$9,008	800,6\$	\$9,008	800'6\$	800,65	\$9,008	\$9,008	\$9,008	\$9,008	\$9,008	\$8,825	\$225,017			0 yrs)			
04 Grant 853		Interest	\$6,008	\$5,873	\$5,732	\$5,585	\$5,430	\$5,269	\$5,101	\$4,925	\$4,742	\$4,550	\$4,349	\$4,139	\$3,920	\$3,691	\$3,452	\$3,202	\$2,941	\$2,668	\$2,383	\$2,084	\$1,773	\$1,447	\$1,107	\$752	\$380	\$91,505	(1-07)	\$165,730	3 to FY2042 (4	= 4.5 %	e: USDA	0.05435
¥.	3	Principal	\$3,000	\$3,135	\$3,276	\$3,423	\$3,578	\$3,739	\$3,907	\$4,083	\$4,266	\$4,458	\$4,659	\$4,869	\$5,088	\$5,317	\$5,556	\$5,806	\$6,067	\$6,340	\$6,625	\$6,924	\$7,235	\$7,561	106,7\$	\$8,256	\$8,445	\$133,512	Water Tank (9	Principal:	Dates: FY2003	nterest Rate -	⁻ unding Sourc	Factor:
		Balance	\$133,512	\$130,512	77E,7212	\$124,101	\$120,677	\$117,100	\$113,361	\$109,454	\$105,372	\$101,105	\$96,647	\$91,988	\$87,120	\$82,032	\$76,716	\$71,160	\$65,354	\$59,287	\$52,947	\$48,322	\$39,398	\$32,163	\$24,602	\$16,701	\$8,44S		-	-		-	-	
		Total	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$32,141	\$31,645			\$738,747	n		0 Yrs)			
1∆ Grant 853:		Interest	\$20,454	\$19,929	\$19,379	\$18,805	\$18,205	\$17,577	\$16,922	\$16,237	\$15,522	\$14,774	\$13,992	\$13,175	\$12,322	\$11,430	\$10,498	\$9,524	\$8,506	\$7,443	\$6,332	\$5,170	\$3,956	\$2,688	\$1,363			\$284,203	Improvement	\$591,360	. to FY2040 (4	4.5%	e: USDA	0.05435
1511	3	Principal	\$11,687	\$12,212	\$12,762	\$13,336	\$13,936	\$14,564	\$15,219	\$15,904	\$16,619	\$17,367	\$18,149	\$18,966	\$19,819	\$20,711	\$21,643	\$22,617	\$23,635	\$24,698	\$25,810	\$26,971	\$28,185	\$29,453	\$30,282			\$454,543	Water System	Principal:	Dates: FY2001	Interest Rate =	Funding Sourc	Factor:
		Balance	\$454,543	\$442,857	\$430,644	\$417,882	\$404,548	\$390,610	\$376,046	\$360,827	\$344,923	\$328,304	\$310,937	\$292,788	\$273,822	\$254,003	\$233,292	\$211,649	\$189,033	\$165,398	\$140,700	\$114,891	\$87,920	\$59,735	\$30,282			-	-					
n of New Hartford Debt Sandra	Ac of	Fiscal Year	Jul-18	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042							

Town

Jebt Repayment Schedule	
Enterprise [
Wastewater	
Table 8.	

. Self-Support Schedule		<u>Annual Payment</u>	\$61,092	\$60,872	\$60,653	\$60,433	\$60,213	\$59,993	\$56,524	\$46,554	\$46,333	\$44,509	\$41,150	\$41,149	\$41,149	\$41,149	\$41,149	\$41,150	\$41,150	\$41,150	\$41,150	\$41,150	\$41,150	\$41,150	\$41,150	\$39,745	\$8,228	\$1,140,095				
Based on WPCA		Balance	\$822,881																									E.				
Contribution 61 %		Annual Payment	\$135,702	\$135,630	\$135,558	\$135,486	\$135,413	\$135,341	S132,019	\$122,197	\$122,124	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	ŝ	So	\$2,875,727				
Based on WPCA		Balance	\$2,032,039	\$1,959,707	\$1,385,499	\$1,809,353	\$1,731,208	\$1,650,998	\$1,568,655	\$1,487,361	\$1,413,544	\$1,337,380	\$1,260,398	\$1,180,914	\$1,098,847	\$989,712	\$926,624	\$836,292	\$743,025	\$646,726	\$547,298	\$444,638	\$338,642	\$229,201	\$116,203	8	ŝ					
June 30, 2016		P&I	\$45,837	\$45,689	\$45,542	\$45,394	\$45,247	\$45,099	\$44,952	\$44,804	\$44,656	\$44,509	\$41,150	\$41,149	\$41,149	\$41,149	\$41,149	\$41,150	\$41,150	\$41,150	\$41,150	\$41,150	\$41,150	\$41,150	\$41,150	\$39,745	\$8,228	\$1,034,648				
ing Schedule		Interest	528,443	\$27,656	\$26,843	\$25,998	\$25,122	\$24,213	\$23,270	\$22,291	\$21,275	\$20,221	\$19,123	\$18,131	\$17,095	\$16,013	S14,882	\$13,700	\$12,465	\$11,174	59,826	\$8,416	\$6,943	\$5,403	\$3,795	\$2,116	5380	\$404,794				
Self-Support		Principal	\$17,394	\$18,033	\$18,699	\$19,396	\$20,125	\$20,886	\$21,682	\$22,513	\$23,381	\$24,288	\$22,027	\$23,018	\$24,054	\$25,136	\$26,267	\$27,450	\$28,685	\$29,976	\$31,324	\$32,734	\$34,207	\$35,747	\$37,355	\$37,629	\$7,848	\$629,854				
		Balance	\$720,686																									•				
4	WPCA	Contribution	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447	\$120,447			\$2,770,280	rade	(64	vu yrsy	
VPCF Upgrad		181	\$197,454	\$197,454	\$197,454	\$197,454	\$1.97,454	\$197,454	\$ <u>1</u> 97,454	\$197,454	\$197,454	\$197,454	\$197,454	S197,454	\$197,454	\$1.97,454	\$197,454	\$197,454	\$197,454	\$197,454	\$197,454	\$197,454	\$197,454	\$197,454	\$197,454			\$4,541,442	eatment Upg	\$3,594,000	3.25%	e: USDA 0.0527
>		Balance	\$3,163,678	\$3,069,044	\$2,971,334	\$2,870,448	\$2,766,284	\$2,658,734	\$2,547,689	\$2,433,035	\$2,314,654	\$2,192,426	\$2,066,226	\$1,935,925	\$1,801,388	\$1,622,479	\$1,519,056	\$1,370,971	\$1,218,074	\$1,060,207	\$897,210	\$728,915	\$555,151	\$375,739	\$190,497			\$3,344,102	Wastewater Tr	Principal:	interest Rate =	Funding Source Factor:
n Loạn		Payment	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$13,000	\$9,750																			\$87,750	eplacement	0,000 50004 (40)	0%	томп
Tow		Balance	\$87,750	\$74,750	\$61,750	\$48,750	\$35,750	\$22,750	\$9,750																			•	General Fund R	Principal = \$13(Interest Rate =	Funding Source
(See Note 1)		P&I	\$2,255	\$2,183	\$2,111	\$2,039	\$1,966	\$1,894	\$1,822	\$1,750	\$1, <i>617</i>																	\$17,697	nprovements	1	feik ne	
sewer/Water		Interest	\$650	\$578	\$506	\$434	\$361	\$289	\$217	\$145	\$72																	\$3,252	ater/Sewer Ir	\$96,300 7 +- 57,2005	- 45 %	ce: USDA 0.05435
Prospect St		Principal	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605	\$1,605																	\$14,445	Prospect St W	Principal:	nterest Rate:	Funding Sourc Factor:
		Balance	\$14,445	\$12,840	\$11,235	\$9,630	\$8,025	\$6,420	\$4,815	\$3,210	\$1,605																	-				
Town of New Hartford Debt Service	As of	Fiscal Year	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	. 18				

TOTAL WASTEWATER DEBT

TABLE 9. COMPARISON OF CONTINUED TOWN OWNERSHIP TO ASSET SALE WITH AQUARION WATER COMPANY

Transaction Component	Town Ownership	AWC Ownership
Financial:		
Debt:		
Water	\$602,500	\$0
Wastewater	3,265,870	0
Total	\$3,868,370	\$0
Exress Printadis	Town water/wastewater debt remains at \$3.868 MM; no further nonceeds to fund sewer excansion	\$8M proceeds allow pay-off of all water/wastewater obligations oline \$4.13M funds for expansion
Sewer Extension per CDM Smith Plan	Capex is \$5.7M for Cottage Street and Pine Meadow sewers: Town debt remains \$3 868M	\$4.13M excess provides funding for sewer extensions; Town debt retired
Property Taxes from Assets	No property tax revenues	AWC becomes one of the Town's largest taxpavers
WPCA Administrative Costs	Average annual cost of \$8,000	Cost is substantially reduced or eliminated
Operational:		
CIP Implementation	Town continues to defer Capex and reactively repairs equipment as Non-Routine service	CIP is systematically reviewed and updated each year, Capex is scheduled for proactive upgrades
Collection/Distribution System Improvements	Town does not implement any inspections or pipeline repairs due to financial limitations	System of inspections, prioritization and upgrades implemented
Mapping and Water Supply Plan	Mapping continues unfunded and WS plan is prepared by volunteers on WPCA	Maps are compiled, digitized and field confirmed; WS plan assistance provided by AWC
Risk:		
Obligation to serve: Responsibility for Water and Wastewater systems	Town maintains responsibility, financial costs and risk for violations	Town exits the water and wastewater business and assumes no further risk
Land Transfers and Easements	Town maintains ownership of lands, easements and lease with MDC	Town transfers lands, easements and MDC lease to AWC
Rates:		
Future Rates	Wastewater rates need to be increased substantially or continue Town subsidization	Wastewater rates stabilized for at least 5 years
Rate Setting	WPCA continues to be responsible for rate setting	Thorough, systematic, open rate setting by independent PURA

FIGURES

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FIGURE 1. OVERVIEW OF AQUARION WATER COMPANY - CT OPERATIONS

r Costs (Typ. Residential User)	Water Suppliers	MDC - Hartford	New Hartford WPCA	Connecticut Water Company	New haven Regional Water Authority	Aquarion Weighted Average Average	Aquarion - Western Division	Torrington Water Company	Aquarion - Northern Division	
Comparison- Annual Wate	Est. Annual Cost- Typ. Household	\$801	\$728	\$723	\$609	\$562	\$494	\$486	\$403	



FIGURE 2. COMPARISON OF ANNUAL WATER COSTS FOR TYPICAL RESIDENTIAL USER (1)

(1) - Based on PURA Benchmark of 72,000 gallon per Household



FIGURE 3. AWC SUPPLY OPERATIONS ORGANIZATION CHART



FIGURE 4. WATER AND WASTEWATER USER FEE BUILD-UP UNDER CURRENT CONDITIONS (Cost / KGAL)



Cost per Year for Typical Household, \$/year (based on wastewater use of 72,000 gal/yr)

ATTACHMENT B

DETAILED LISTING OF CURRENT AWC - CT USER RATES



Stewards of the Environment

East	ern Divisio	n - General S	Service, Public & Pri	ivate Fire	
		<u>M</u>	etered Rate		140 <u>-</u> 409-777-7
Minimum Service Char	le				
Meter Size	2	Quarterly	Monthly		
5/8"		\$38.67	\$12.89		
3/4"		\$58.02	\$19.34		
1"		\$96.66	\$32.22		
1 1/2"		\$193.38	\$64.46		
2 ^u		\$309.39	\$103.13		
3"		\$580.11	\$193.37		
4"		\$966.90	\$322.30		
6"		\$1,933.80	\$644.60		
8"		\$3,094.11	\$1,031.37		
10"		\$4,447.74	\$1,482.58		
12"		\$8,315.37	\$2,771.79		
16"		\$11,022.66	\$3,674.22		
Water Consumption Ch	arge				
Customers Billed G)uarterly		Customers Billed Mo	onthly	
Per 100 Cubic Feet (CCI	-)	F	Per 100 Cubic Feet (CCF)		
First 420 CCF	\$4.234	F	irst 140 CCF	\$4.234	
Over 420 CCF	\$2.083	C	over 140 CCF	\$2.083	
Bor 1000 Collons (TC)		c	Per 1000 Gallons (TG)		
Firet 31/ TC	\$5,660	<u>.</u> F	irst 105 TG	\$5 660	
Over 314 TG	\$2.785	ć	over 105 TG	\$2.785	
Private Fire Annual Cha	arges				
Service Size	Annual				
2"	\$181.38	·			
4"	\$665.77				
6". 0"	\$1,497.30 \$2,662.60				
୪" 40"	₽∠,002.02 ¢4.465.45				
10"	94,100.40 ¢5 000 50				
I∠ 4 A‼	40,990.00 \$7 746 00				
14 Driveto Hudropt	\$1,740.00 \$1.143.60				
Flivate Flythant	ψ1,140.05				
Public Fire Annual Cha	rges				
Annual Charge per Inch I	Foot of Mains		\$0.09242		
Company Owned Hydrar	t Charge		\$264.58		
					.



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Stewards of the Environment

Eastern Divi	sion (Top	stone) - G	eneral Service, Public	& Private Fire
Minimum Sonvios Charges			Metered Rate	
Minimum Service Charge				
<u>Meter Size</u>		<u>Quarterly</u>	<u>Monthly</u>	
5/8"		\$38.67	\$12.89	
3/4"		\$58.02	\$19.34	
1"		\$96.66	\$32.22	
1 1/2"		\$193.38	\$64.46	
2"		\$309.39	\$103.13	
3"		\$580.11	\$193.37	
4"		\$966.90	\$322.30	
6"		\$1,933.80	\$644.60	
8"		\$3,094.11	\$1,031.37	
10"		\$4,447.74	\$1,482.58	
12"		\$8,315.37	\$2,771.79	
16"		\$11,022.66	\$3,674.22	
Water Consumption Char	<u>ge</u>		10 4 10 10 10 10 10 10 10 10 10 10 10 10 10 10 1	
Customers Billed Qua	arterly		Customers Billed Mor	nthly
Per 100 Cubic Feet (CCF)			Per 100 Cub <u>ic Feet (CCF)</u>	
First 420 CCF	\$6.870		First 140 CCF	\$6,870
Over 420 CCF	\$6.870		Over 140 CCF	\$6.870
Per 1000 Gallons (TG)			<u>Per 1000 Gallons (TG)</u>	
First 314 TG	\$9,190		First 105 TG	\$9.190
Over 314 TG	\$9.190		Over 105 TG	\$9.190
Private Fire Annual Charg	es			
Sonvice Sizo	Annual			
<u>001 VICE 0120</u> 2"	\$181 38			
<u></u>	\$665.77			
6"	\$1,497.36			
8"	\$2.662.62			
10"	\$4,165,45			
12"	\$5,990.58			
14"	\$7.745.98			
Private Hydrant	\$1,143.69			
Public Fire Annual Charge	<u>es</u>			
Annual Charge per Inch Fo	ot of Mains		\$0.02649	
Company Owned Hydrant (Charge		\$72.58	



Stewards of the Environment

Eastern Divisior	n (Rural) - General S	Service, Public & Private Fire	12 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	Metere	d Rate	
Minimum Service Charge			
<u>Meter Size</u>	Quarterly	Monthly	
5/8" 3/4" 1" 1 1/2" 2" 3"	\$ 38.67 \$ 58.02 \$ 96.66 \$ 193.38 \$ 309.39 \$ 580.11	\$12.89 \$19.34 \$32.22 \$64.46 \$103.13 \$193.37	
4" 6" 8" 10" 12" 16"	\$ 966.90 \$ 1,933.80 \$ 3,094.11 \$ 4,447.74 \$ 8,315.37 \$ 11,022.66	\$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
Water Consumption Charge		Federal Road System Consumpti	on Charge
Per 100 Cubic Feet (CCF)	\$4.234	Per 100 Cubic Feet (CCF)	\$4.234
Per 1000 Gallons (TG)	\$5.660	Per 1000 Gallons (TG)	\$5.660
<u>Non-Metered Flat Rate Year Rour</u> <u>Per Month</u> <u>Per Quarter</u> <u>Seasonal Service</u>	nd Service \$ 49.74 \$ 149.22 \$ 298.45		
Private Fire Annual Charges			
<u>Service Size</u> 2" 4" 6" 8" 10" 12"	<u>Annual</u> \$96.50 \$385.74 \$868.25 \$1,543.49 \$2,411.74 \$3,472.73		
Private Hydrant - Company Installed Private Hydrant - Customer Installed	\$1,143.69 \$935.20		
Public Fire Annual Charges			
Company Owned Hydrant Charge		\$414.33	



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Stewards of the Environment

Eastern Division (Brookfi	eld Water)	- General S	Service, Public 8	Private Fire
Minimum Portico Charge	<u> </u>	letered Rate		
Minimum Service Charge				
Meter Size	Quarterly		Monthly	
5/8"	\$38.67		\$12.89	
3/4"	\$58.02		\$19.34	
1"	\$96.66		\$32.22	
1 1/2"	\$193.38		\$64.46	
- 17Σ 	\$200.00		\$103.13	
2	\$509.09 \$600.14		¢103.10	
3	4000.11		#100.07 #222.20	
4"	\$966.90		\$322.3U	
6"	\$1,933.80		\$044.0U	
8"	\$3,094.11		\$1,031.37	
10"	\$4,447.74		\$1,482.58	
12"	\$8,315.37		\$2,771.79	
16"	\$11,022.66		\$3,674.22	
Water Consumption Charge				
Customers Billed Quarterly				
Basidantial Par 100 Cubic East (CCE)			\$4.234	
Residential Per 100 Cubic Feet (COF)			Ψ 1 .204 \$5.660	
<u>Residential Per 1000 Gallons (19)</u>			φ3.000	
Commerial & Industrial Per 100 Cubic I	eet (CCF)		\$8.977	
Commerial & Industrial Per 1000 Gallor	1s (TG)		\$12.000	
			AA FAA	
Public Authority Per 100 Cubic Feet (C	<u>CF)</u>		\$3.586	
Public Authority Per 1000 Gallons (TG)			\$4.793	
Private Fire Annual Charges				
Service Size		Annual		
<u>Service Size</u>		\$06 50		
<u>ک</u> ۸۱۱		430.00 \$395.74		
4		4000.74 4000 NE		
6"		\$000.20 #4 E42 40		
8"		\$1,543.49		
10 ^a		\$2,411.74		
12"		\$3,472.73		
Private Hydrant - Customer Installed		\$935.20		
Private Hydrant - Company Installed		\$1 143 69		
Filvale Hydrant - Company Installed		÷11110100		
Public Fire Annual Charges				
Company Owned Hydrant Charge		\$414.33		



And and a second

Schedule of Approved Rates (issued and effective February 7, 2014 per docket 13-02-20)

Eastern Divisi	on (Olmstead, Judea Gen	a, Tyler, Circle eral Service	Drive & Chestnut Tree H	ill)
Minimum Service Charge	Metered Rat	e	Metere	<u>d Rate</u>
	<u>(Olmstead, Tyler -W</u> Clearview & Indian Spi	<u>loodrich,</u> ing, Judea)	(Tyler Lake, C Chestnut	Circle Drive & Tree Hill)
<u>Meter Size</u>	Quarterly	<u>Monthly</u>	Quarterly	Monthly
5/8" 3/4" 1" 1 1/2" 2" 3" 4" 6" 8" 10" 12"	\$38.67 \$58.02 \$96.66 \$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8.315.37	\$12.89 \$19.34 \$32.22 \$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2 771 79	\$38.67 \$58.02 \$96.66 \$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8.315.37	\$12.89 \$19.34 \$32.22 \$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2.771.79
16" Customers Billed Quarterly <u>Water Consump</u>	\$11,022.66	\$3,674.22	\$11,022.66	\$3,674.22
Oimstead, Tyter-woodrich,	\$3.736	rree milj	Per 100 Cubic Feet (CCF)	\$4.234
Per 1000 Gallons (TG)	\$4.994		Per 1000 Gallons (TG)	\$5.660
Water Consumption Charge	o (Tyler-Indian Spring & C	Clearview)		
Per 100 Cubic Feet (CCF)	\$2.214			
<u>Per 1000 Gailons (TG)</u>	\$2.959			
<u>Private Fire Ann</u> <u>Se</u> Privat	<u>vice Size</u> 2" 4" 6" 8" 10" 12" 14" e Hydrant	<u>Annual</u> \$181.38 \$665.77 \$1,497.36 \$2,662.62 \$4,165.45 \$5,990.58 \$7,745.98 \$1,143.69		
Public Fire Annu Public-Inch Foot Company Owned	<u>al Charges</u> Charge Hydrant Charge	\$0.0924 \$264.58		

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Stewards of the Environment

Minimum Service Charge Q 5/8" 3/4" 1" 1/2" 2" 3" 4" 6" 8" 10" 12" 16" 16" \$ Water Consumption Charge Residential Per 1000 Gallons (TG) Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges Private Fire Annual Charges	<u>Ma</u> s38.67 \$58.02 \$96.66 \$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 i11,022.66	etered Rate	Monthly \$12.89 \$19.34 \$32.22 \$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
Meter Size Q 5/8" 3/4" 1" 1/2" 2" 3" 4" 6" 8" 10" 12" 16" 16" \$ Water Consumption Charge Residential Per 1000 Gallons (TG) Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$38.67 \$58.02 \$96.66 \$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66		Monthly \$12.89 \$19.34 \$32.22 \$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
Meter Size Q 5/8" 3/4" 1" 1/2" 2" 3" 4" 6" 8" 10" 12" 16" 16" \$ Water Consumption Charge Residential Per 1000 Gallons (TG) Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$38.67 \$58.02 \$96.66 \$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66 \$2,264		<u>Monthly</u> \$12.89 \$19.34 \$32.22 \$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
5/8" 3/4" 1" 1 1/2" 2" 3" 4" 6" 8" 10" 12" 16" \$ Water Consumption Charge Residential <u>Per 1000 Gallons (TG)</u> Commercial & Public Authority <u>Per 1000 Gallons (TG)</u> Industrial <u>Per 1000 Gallons (TG)</u> Private Fire Annual Charges	\$38.67 \$58.02 \$96.66 \$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66		\$12.89 \$19.34 \$32.22 \$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
3/4" 1" 1 1/2" 2" 3" 4" 6" 8" 10" 12" 16" \$ Water Consumption Charge Residential <u>Per 1000 Gallons (TG)</u> Commercial & Public Authority <u>Per 1000 Gallons (TG)</u> Industrial <u>Per 1000 Gallons (TG)</u> Private Fire Annual Charges	\$58.02 \$96.66 \$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66		\$19.34 \$32.22 \$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
1" 1 1/2" 2" 3" 4" 6" 8" 10" 12" 12" 16" \$ Water Consumption Charge Residential Per 1000 Gallons (TG) Gommercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$96.66 \$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66		\$32.22 \$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
1 1/2" 2" 3" 4" 6" 8" 10" 12" 16" \$ Water Consumption Charge Residential Per 1000 Galions (TG) Commercial & Public Authority Per 1000 Galions (TG) Industrial Per 1000 Galions (TG) Private Fire Annual Charges	\$193.38 \$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66		\$64.46 \$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
2" 2" 3" 4" 6" 8" 10" 12" 16" \$ Water Consumption Charge Residential <u>Per 1000 Galions (TG)</u> Commercial & Public Authority <u>Per 1000 Galions (TG)</u> Industrial <u>Per 1000 Galions (TG)</u> Private Fire Annual Charges	\$309.39 \$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66		\$103.13 \$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
3" 4" 6" 8" 10" 12" 16" Water Consumption Charge Residential Per 1000 Gallons (TG) Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$580.11 \$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66		\$193.37 \$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
4" 6" 8" 10" 12" 16" \$ <u>Water Consumption Charge</u> <u>Residential</u> <u>Per 1000 Gallons (TG)</u> Commercial & Public Authority <u>Per 1000 Gallons (TG)</u> Industrial <u>Per 1000 Gallons (TG)</u> Private Fire Annual Charges	\$966.90 \$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66		\$322.30 \$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
F 6" 8" 10" 12" 16" Water Consumption Charge Residential Per 1000 Gallons (TG) Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$1,933.80 \$3,094.11 \$4,447.74 \$8,315.37 11,022.66 \$6.264		\$644.60 \$1,031.37 \$1,482.58 \$2,771.79 \$3,674.22	
8" 10" 12" 16" \$ <u>Water Consumption Charge</u> Residential <u>Per 1000 Gallons (TG)</u> Commercial & Public Authority <u>Per 1000 Gallons (TG)</u> Industrial <u>Per 1000 Gallons (TG)</u> Private Fire Annual Charges	\$3,094.11 \$4,447.74 \$8,315.37 11,022.66 \$6.264		\$1,482.58 \$2,771.79 \$3,674.22	
o 10" 12" 12" Mater Consumption Charge Residential Per 1000 Gallons (TG) Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$4,447.74 \$8,315.37 11,022.66		\$1,482.58 \$2,771.79 \$3,674.22	
10" 12" 16" \$ Water Consumption Charge Residential Per 1000 Gallons (TG) Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$4,447.74 \$8,315.37 11,022.66 		\$2,771.79 \$3,674.22	
12" 16" \$ <u>Water Consumption Charge</u> Residential <u>Per 1000 Gallons (TG)</u> Commercial & Public Authority <u>Per 1000 Gallons (TG)</u> Industrial <u>Per 1000 Gallons (TG)</u> Private Fire Annual Charges	৯৫,310.37 11,022.66		\$2,674.22	
16" \$ Water Consumption Charge Residential Per 1000 Galions (TG) Commercial & Public Authority Per 1000 Galions (TG) Industrial Per 1000 Galions (TG) Private Fire Annual Charges	\$6.264		₽3,014.22	
Water Consumption Charge Residential Per 1000 Gallons (TG) Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$6.264			
Residential <u>Per 1000 Gallons (TG)</u> Commercial & Public Authority <u>Per 1000 Gallons (TG)</u> Industrial <u>Per 1000 Gallons (TG)</u> <u>Private Fire Annual Charges</u>	* \$6.264			
Residential Per 1000 Galions (TG) Commercial & Public Authority Per 1000 Galions (TG) Industrial Per 1000 Galions (TG) Private Fire Annual Charges	\$6.264			
<u>Per 1000 Gallons (TG)</u> Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges	\$6.264			
Commercial & Public Authority Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges				
Per 1000 Gallons (TG) Industrial Per 1000 Gallons (TG) Private Fire Annual Charges				
Industrial <u>Per 1000 Gallons (TG)</u> Private Fire Annual Charges	\$5.660			
Per 1000 Gallons (TG) Private Fire Annual Charges				
Private Fire Annual Charges	\$5.208			
				_
Service Circ			Annual	
Service Size			CHINGA \$127 75	
2" 			φ104.70 ¢520.26	
4"			3039.30 #4.040.47	
6"			\$1,213.47 \$2,417.60	
8"			\$2,157.26	
10"			\$3,370.53	
12"			\$4,853.67	
Private Hydrant (Installed by Company)			\$1,476.50	
Private Hydrant (Installed by Customer)			\$1,213.47	
Public Fire Annual Charges				
Appual Charge per Inch Foot of Mains		\$0.06903		
Company Owned Hydrant Charge		\$264.58		
Dublic Sprinkler 6"		\$1 213 47		



Stewards of the Environment

v	Western Division - General Service, Public & Private Fire					
Minimum Service C	harge	Meter	ed Rate			
Million Service O	narge					
Meter	Size	<u>Quarterly</u>	<u>Monthly</u>			
5/8	51 I	\$38.67	\$12.89)		
3/4	ุย	\$58.02	\$19.34	1		
1"		\$96.66	\$32.22	2		
1 1/	2"	\$193.38	\$64.46	3		
2"		\$309.39	\$103.13	3		
3"		\$580.11	\$193.37	7		
4"		\$966.90	\$322.30)		
6'		\$1,933.80	\$644.60)		
8"		\$3,094.11	\$1,031.37			
10		\$4,447.74	\$1,482.50 \$3,774.70	5		
12	1	\$8,310.37 ¢44.000.66	ψZ,//1./3 \$2.67/20	* >		
0		φ11,022.00 	φυ,014.22	-		
Water Consumption	h Charge					
Customers Bill	ed Quarterly	I	Customers Billed N	lonthly		
Per 100 Cubic Feet (CCF)	Per 100 Cubic Feet (CCF))		
First 420 CCF	\$3.361	First	140 CCF	\$3.361		
Over 420 CCF	\$2.083	Over	140 CCF	\$2.083		
Der 1000 College (T	~1	Por 1	000 Gallons (TG)			
First 314 TC	<u></u>	<u>For r</u> First '	105 TG	\$4 493		
Over 314 TG	\$2.785	Over	105 TG	\$2.785		
Private Fire Annual	Charges					
<u></u>						
Service Size	<u>Annuar</u> ¢191.39					
2 /"	\$665.77					
4 6"	\$1 497 36					
8" 2	\$2 662 62					
10"	\$4,165,45					
12"	\$5.990.58					
14"	\$7,745.98					
Private Hydrant	\$1,143.69					
Public Fire Annual	Charges					
Annual Charge per li	rch Foot of Mains	\$0.	09748			
	1 101	^	004.50			



Stewards of the Environment

Care -

Northern Div	ision - General Serv	vice, Public & Private Fire	
	Metere	ed Rate	
Minimum Service Charge			
Meter Size	Quarterly	Monthly	
5/8"	\$38.67	\$12.89	
3/4"	\$58.02	\$19.34	
1"	\$96.66	\$32.22	
1 1/2"	\$193.38	\$64.46	
2"	\$309.39	\$103.13	
3"	\$580.11	\$193.37	
4"	\$966.90	\$322.30	
6"	\$1,933.80	\$644.60	
8"	\$3,094.11	\$1,031.37	
10"	\$4,447.74	\$1,482.58	
12"	\$8,315,37	\$2,771,79	
16"	\$11,022.66	\$3,674,22	
Per 1000 Gallons (TG) All Consumption \$3.2 Private Fire Annual Charges	272		
Service Size Annua	d		
2" \$181	.38		
4" \$476	i.15		
6" \$1,070	.13		
8" \$1,902	.58		
10" \$2,973	.46		
12" \$5.990	.58		
14" \$7.953	.67		
Private Hydrant \$1.143	.69		
······································			
Public Fire Annual Charges	·····		
		4495	
 Annual Charge per Inch Foot of Ma 	uns %0.0	14430	



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Stewards of the Environment

South	Southern Division - General Service, Public & Private Fire					
Metered Rate						
Minimum Service Charge						
Meter Size	Quarterly		Monthly			
5/8"	\$38.67		\$12.89			
3/4"	\$58.02		\$19.34			
1 ^в	\$96.66		\$32.22			
1 1/2"	\$193.38		\$64.46			
2°	\$309.39		\$103.13			
3"	\$580.11		\$193.37			
4"	\$966.90		\$322.30			
6*	\$1,933.80		\$644.60			
8"	\$3,094.11		\$1,031.37			
10"	\$4,447.74		\$1,482.58			
12"	\$8,315.37		\$2,771.79			
16"	\$11,022.66		\$3,674.22			
Water Consumption Cha	.de	<u>_</u> .				
Residential Customers-Bil	led Quarterly		Residential Cu	stomers-Bill	ed Monthly	
Per 100 Cubic Feet (CCF)		<u> </u>	Per 100 Cubic F	eet (CCF)		
First 420 CCF	\$4.234	F	First 140 CCF		\$4.234	
Over 420 CCF	\$3.679	(Over 140 CCF		\$3.679	
		,	Dor 1000 Collon	$\alpha(TC)$		
Per 1000 Gallons (TG)	AC 000	<u>1</u>	Per 1000 Gallon	8[16]	¢5 660	
First 314 IG	\$5.660	l l			\$0.000 ¢4.040	
Over 314 IG	\$4.918	L	JVer 105 1G		φ 4.910	
Non-Residential Customers-	Billed Quarterly	No	on-Residential	Customers-E	Billed Monthly	
Per 100 Cubic Feet (CCF)	A	<u>1</u>	Per 100 Gubic F	<u>eelloori</u>	¢4.004	
First 420 CCF	\$4.234	F			94.204 ¢0.595	
Over 420 CCF	\$2.585	L. L.	JVEF 140 CCF		φ2.000	
Per 1000 Gallons (TG)		ł	Per 1000 Gallon	s (TG)		
First 314 TG	\$5.660	- F	First 105 TG	<u> </u>	\$5,660	
Over 314 TG	\$3.456	(Over 105 TG		\$3.456	
Duburta Film Annual Char						
Private Fife Annual Char	103	Greenwich		Mystic		
Service Size		Annual		Annual		
<u>0011100 0120</u> 2 [#]		\$96 50		\$134.75		
<i>د.</i> ۵۳		\$385.74		\$539.36		
		\$868.25		\$1.213.47		
бв О		\$1 543 49		\$2,157,26		
0 10 ⁴		\$2 411 74		\$3,370.53		
10"		\$3 472 73		\$4,853.67		
12		ψυ,+12.10		φ -1000.01		
Private Hydrant		\$1,143.69		\$1,213.47		
Public Fire Annual Charg	es					
	et of Moine	¢ 0.07700		ቀስ በውንፈን		
Annual Charge per Inch Fo	Charge	40.07706 \$222 AD		90.09242 \$222 ND		
Company Owned Hydrant	onatye	Ψζζζ.00		Ψ <u>2</u> 22.00		



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Stewards of the Environment

Schedule of Approved Rates (issued and effective July 17, 2013 per docket 13-02-04, January 8, 2014 per docket 13-01-11, February 7, 2014 per docket 13-02-20 and June 27, 2014 per docket 10-03-18)

Flat Rate Service		
- Heren (K. Karakara), Karakara, Karakara, Karakara, Karakara, Karakara, Karakara, Karakara, Karakara, Karakara		
Quarterly Minimum Charge		
	Quarterly	
Includes one sink, one water closet,		
one bathtub or stall shower, and one wash bowl.	\$96.40	
Additional Fixtures		
Sink or Dishwasher	\$22.31	
Water Closet	\$22,85	
Bathtub	\$13.59	
Stall Shower	\$13,59	
Wash Bowl	\$6.63	
Laundry Tray	\$12.47	
Washer	\$22.85	
Outside Fixtures		
First faucet, sillcock, or vard hydrant:	\$24.25	
an Jole 501 in fronting or togo	42 G24	
on lots 50 in frontage of less		
For lots in excess of 50' frontage for	\$3.91	
each additional 10' or part thereof		
For each additional faucet, sillcock,	\$5.36	
or yaro nyorant		
	<u>Monthly</u>	
Ball Pond Customers	\$34.28	
Birchwood Customers (unmetered)	\$54.28	
Meckauer Customers (unmetered) ²	\$43.42	
Dunham Pond Customers (unmetered) ²	\$43.42	
Dean Heights Tax District (unmetered) ³	\$46.28	
Indian Fields Water System Customers (unmetered) ²	\$42.63	
Valley View Customers (unmetered) ²	\$43.42	
	Quarterly	
Greenridge Tax District (unmetered) ³	\$127.89	
Candlewood Terrace - Carmen Hill (unmetered) ³	\$127.89	
Forest Hills Estates, Inc. (unmetered) ³	\$127.89	
Surcharges	Quarterly	
	Quarteriy	
Greenridge Tax District - Mortgage Pay-down	\$40.50 #75.00	
Greenridge Tax District - Twenty-year Capital Expenditure	\$75.00	
Candlewood Terrace - Carmen Hill Orchards	\$25.00	
	Monthly	
Bedrock- Twenty-Five year Capital Expenditure	\$50.00	
¹ Upon metering, customers will be charged Southern Division	rates	
4 ,		
² Upon metering, customers will be charged Eastern Division ra	ites	



Stewards of the Environment

Sales for Resale			
Sales for Resale to United Water Westchester Inc.			
Volumetric Charge	\$1,782.96 per MG		
Demand Charge \$	657,452 Annually the lesser of \$657,452 or the reduced demand charge resulting from the additional revenue collected as a result of a volumetric rate from WJWW in excess of \$1,782.96 per MG.		
Service Charge			
Size of Meter	Service Charge Per Month		
6"	\$644.60		
8"	\$1,031.37		
10"	\$1,482.58		
1.01	\$3 674 22		



Stewards of the Environment

Schedule of Approved Rates (issued and effective February 7, 2014 per docket 13-02-20)

Economic Development (All Divisions)

Businesses relocating or significantly expanding operations within designated areas of Aquarion Water Company of Connecticut service territory, or distressed businesses contemplating closing, may receive a volumetric and/or private fire incentive rate reduction. The Company may require proof of eligibility.

The volumetric reduction consists of a 20 percent discount from the then current tail block rate. The reduction will be phased out of existence equally over a ten-year period.

The private fire reduction consists of a 25 percent discount from the then current rate and will also be phased out of existence equally over a ten-year period.

Both the volumetric and fire incentive charges will be subject to periodic effects of a general rate increase and/or Construction Work in Progress surcharge.



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Stewards of the Environment

Miscellaneous Charges (All Divisions)	
Tapping Fees (mains greater than 10 vrs old)	
1" Tap	\$565.00
1 - 1/4" tap single	\$701.00
1 - 1/2" tap	by estimate
2" tap	by estimate
Over 2" Tap	by estimate
Tapping Fees (mains less than 10 yrs old)	
1" Tap	\$1.019.00
1 - 1/4" tap single	\$1,205.00
1 - 1/2" tap	by estimate
2" tap	by estimate
Over 2" Tap	by estimate
\$75 charge assessed for job sites not prepared in accordance with specifications within 1/2 hour of the ta connection appointment time.	ap/service
Tap Shut-Off	
2" and smaller Tap Shut-Off Only (Excavation and final road repair provided by customer)	\$220.00
Larger than 2" Tap Shut-Off Only (Excavation and final road repair provided by company)	\$4,000.00
Service Calls	
Normal Hours - 1 hour minimum	\$87.00
Normal Hours - ea.1/2 hr after	\$50.00
Outside Normal Hours - time & 1/2 -1 hour minimum	\$129.00
Outside Normal Hours - time & 1/2 - ea.1/2 hr after	\$69.00
Outside Normal Hours - dbl time -1 hour minimum	\$142.00
Outside Normal Hours - dbl time - ea.1/2 hr after	\$77.00
Turning on Service at Curb Box	
Normal Hours	¢70.45
Outside Normal Hours	\$125.68
	+
Turning on Service at Main by Excavation	
Cost of labor, material and equipment with damage claim additives applied	
oot of abor, matchar and equipment with damage claim additives applied.	
Fire Flow Test	
Normal Hours	\$377.00
Outside Normal Hours	\$493.00
Backflow Prevention Device Test	
Fee for collection at customer premise	\$50.00
Fee if billed	\$55.00
Fee for 9 or more devices	\$45.00
Fank Truck Sales	
Per load	AF <i>i</i> i i
Per load (within the former United Water service territory)	\$51.00
a road (maint do former orbited water service territory)	\$85.00



Stewards of the Environment

Miscellaneous Cha	arges (All Divisions)	
<u>Meter Vault Charges</u> Customer requests outside vault at time of installing meter (5/8" Meter pit provided by customer.	,3/4",1") for new account.	\$225.00
Customer requests moving existing meter to outside vault instal Meter pit provided by customer.	ling meter (5/8",3/4",1") for new account.	\$1,050.00
Vaults for other size meters by customer request.		by estimate
Repair or Replacement of Company Meters (due to customer negligence)		
Cost of labor, equipment and materials used with appropriate ov	erheads applied.	:
<u>Hydrant Rig Charge</u> \$20.00 per rig per calendar day, plus \$2,000 deposit required pe	r rig., plus all meter usage	
Return Check Charge		\$25.00
<u>Collection Fees</u> Collections at Customer Premise Assessor's Fee Onsite Inspection Letter Series Lien Filing/Release Late Payment Fee Manual Meter Reading Fee	1.46% per month on the outstanding balance	\$43.84 \$25.00 \$25.00 \$10.00 \$53.00 \$25.00
Missed Appointment Fee		\$57.00
Theft of Service Fee		\$500.00
<u>Testing and repairing fire meters</u> Cost of labor, equipment and material used with appropriate over	heads applied.	
Service of company employees, inspectors, etc (on non-com Cost of labor, equipment and material used with appropriate over	pany work) heads applied.	
<u>Material purchases</u> Material cost with appropriate overheads applied.		
Repair/cleaning of curb box (due to customer negligence) Cost of labor, equipment and material used with appropriate over	neads applied.	

ATTACHMENT C

AQUARION WATER COMPANY RULES AND REGULATIONS



Stewards of the Environment™

Aquarion Water Company of Connecticut Rules and Regulations

March 22, 2013

Page 1 March 22, 2013

Aquarion Water Company of Connecticut Rules and Regulations

A. CONTRACT

These Rules and Regulations and all subsequent changes in same, or amendments and additions thereto, as approved by the Connecticut Public Utilities Regulatory Authority Public Utilities Regulatory Authority, are a part of the contract with every customer of Aquarion Water Company of Connecticut, and each such customer agrees to be bound hereby.

B. CUSTOMER PHILOSOPHY

Our corporate mission statement is "to be the Service Provider, Employer and Investment of Choice". As noted, customers are a key component in our mission statement, and therefore customer service is essential to our success. We strive to provide our customers with superior value in our products and services by maintaining optimum quality at reasonable cost in everything we do.

Customer service is our most important job, provided by every person in every department at every level of our Company. By definition, providing good quality customer service is the act of cultivating the goodwill of individuals who utilize our products and services. Each customer is a unique individual to be treated with every consideration and respect. Indifference to customers cannot be tolerated, and our relationship with our customers must be continually nurtured, not just when a problem occurs.

Good customer service also means top performance, keeping appointments, answering inquiries promptly and courteously, and making sure our product is the best quality it can be. Finally, good customer service means being flexible and adapting to the facts at hand. This in turn means that Company policy must be focused on providing the best possible service to our customer.

C. DEFINITIONS – CUSTOMER ACCOUNT TYPES

<u>Account</u> – Any Premises receiving water from a Company distribution system, including but not limited to the following:

- 1. <u>Residential Account</u>: Any Premises receiving water from a Company distribution system which is used for domestic purposes. Residential Accounts may be billed on a monthly or quarterly basis based on the determination of the Company.
- 2. <u>Industrial Account</u>: Any Premises receiving water from a Company distribution system whose business is such that it (i) produces a product or products; (ii) is engaged in wholesale food processing; (iii) is engaged in experimental or development work; or (iv) is engaged in production of gas or electricity. Industrial Accounts may be billed on a monthly or quarterly basis based on the determination of the Company.
- 3. <u>Commercial Account</u>: Any Premises receiving water from a Company distribution system which does not qualify either as a Residential Account or Industrial Account.

Commercial Accounts may be billed on a monthly or quarterly basis based on the determination of the Company.

- 4. <u>Public Authority Account</u>: This account shall include the net billing for water supplied to municipalities and other public authorities for purposes other than fire protection and resale.
- 5. <u>Private Fire Protection Account</u>: This account shall include the net billing for water supplied for fire protection purposes to privately or publicly owned facilities.
- 6. <u>Public Fire Protection Account</u>: This account shall include the net billing to municipalities and other authorities for the use of Mains and hydrants for fire protection purposes.

DEFINITIONS -- GENERAL (IN ALPHABETICAL ORDER)

<u>Combination Service Line</u> – A Service Line used for both fire protection and domestic or industrial water use.

<u>Commercial Service</u> – Service provided by the Company to a Customer at a place of business other than an Industrial Account.

Company – Aquarion Water Company of Connecticut

Company Owned <u>Hydrant</u>- A fire hydrant that is owned and maintained by the Company.

<u>Cross Connection Control Device</u> – A Department of Public Health approved device for preventing back pressure or back siphonage. These devices are required to be installed and tested, in accordance with the requirements of the Public Health Code. All inspection and testing will be performed by the company at the customer's expense.

<u>Curb Box – A cylindrical iron box with a cover that provides the company access to the curb valve.</u>

<u>Curb Stop</u> – A shut off valve on Service Connections generally located at the curb or property line.

<u>Customer</u> – Any entity furnished Service by the Company, including any person, firm corporation, company, partnership, trust, public body, association, governmental unit, lessee who by the terms of a written lease for six (6) months or longer is responsible for the water bill, or owner of property.

<u>Customer Owned Hydrant</u>- A fire hydrant that is owned and maintained by the customer (formerly referred to as a private hydrant).

<u>Customer Service Line</u> – The curb box and that portion of the Service Line from the Curb Stop to the Customer's place of consumption.

<u>Delinquent Account</u> – For Quarterly accounts a bill for Service which has remained unpaid for a period of more than 64 days from the date of Receipt. For monthly accounts a bill for service which has remained unpaid for a period of more than 34 days from the date of receipt.

<u>DPH</u> – State of Connecticut Department of Public Health.

PURA – State of Connecticut Public Utilities Regulatory Authority.

<u>Family</u> – One or more individuals living as a single housekeeping unit and serviced by at least one bath and kitchen.

Fire Service Line – A Service Line used exclusively for fire protection purposes.

General Statutes – The General Statutes of the State of Connecticut, as amended.

<u>Main</u> – A water pipe owned, operated and maintained by the Company, which is used for the purpose of transmission or distribution of water but is not a Service Line.

<u>Meter</u> – Any device for measuring the quantity of water used as a basis for determining charges for Service to a Customer. A Meter shall be owned and maintained by the Company.

For those customers who own and install sub meters after the company owned meter, the company does not accept any responsibility for the maintenance or accuracy of these meters. They are the responsibility of the property owner.

<u>Meter Vault</u> or <u>Meter Pit</u> – An outdoor vault or pit used to house a water Meter when no suitable location is available within the Premises. Meter Pits and Meter Vaults, including their covers, shall be owned and maintained by the property owner.

<u>Meter Setting –</u> Piping and valve arrangement approved by the company and used for installing a company meter. The meter setting is owned by and the responsibility of the customer to maintain.

<u>Municipally Owned Hyrdant</u>- A fire hydrant that is owned by the Town where it is installed and is maintained by the Town itself.

Premises - Shall include, but is not restricted to, the following:

A building or combination of buildings owned or leased by one Customer, in one common enclosure, occupied by one Family as a residence or one corporation or firm as a place of business;

Each unit of a multiple unit house or building with each unit separated by a solid vertical partition wall and occupied by one Family as a residence or one corporation or firm as a place of business;

A building owned or leased by one Customer and having a number of apartments, offices or lofts which are rented to tenants using in common one hall and one or more means of entrance;

A building two or more stories high under one roof owned or leased by one Customer and having an individual entrance for the ground floor occupants and a separate entrance for the occupants of the upper floors;

A combination of buildings owned by one Customer, in one common enclosure, none of the individual buildings of which is adapted to separate ownership;

A public building; and

A single plot, used as a park, recreational area, or for other purposes.

<u>Reasonable Amortization Agreement</u> – A mutually agreed upon promise of a Customer to pay an Account balance over a reasonable period of time.

<u>Receipt</u> or <u>Received</u> – Three days after the date of mailing, or, if a bill, notice or other document is delivered rather than mailed, the date of delivery, unless another date can be shown.

Regulations – The Regulations of Connecticut State Agencies, as amended.

<u>Remote/Radio Reading Device</u> – A remote reading device is installed on the outside of a building or in an accessible area that allows access for meter reading with electronic equipment. A radio device is attached either to the outside of the building or to the meter itself.

<u>Residential Service</u> – Service provided by the Company to a Customer at a place of residence.

<u>RPD (Reduced Pressure Principle Backflow Prevention Device)</u> – A DPHapproved device for preventing back flow, also known as back pressure or back siphonage.

<u>Rules and Regulations</u> – These Aquarion Water Company of Connecticut Rules and Regulations and all subsequent changes in same, or amendments and additions thereto, as approved by the PURA.

<u>Service</u> – The provision of water by the Company to a Customer at rates filed with and approved by the PURA, including, without limitation, Residential Service.

<u>Service Connection</u> – The Service Line from the Main to the Curb Stop, at or adjacent to the street line or the Customer's property line, and such other valves or fittings as the Company may require at or between the Main and the Curb Stop, but excluding the curb box.

<u>Service Line</u> – The pipe that runs between the Main and the Customer's place of consumption, including Fire Service Lines and Combination Service Lines.

<u>Tap</u> – The fittings installed at the Main to which the Service Line is connected.

<u>Termination</u> – The voluntary or involuntary discontinuance of Service to an individual Customer.

Words of the masculine gender mean and include correlative words of the feminine gender, and words importing the singular mean and include the plural and vice versa.

In all definitions, the interpretation of the Company shall govern.

D. PRESSURE

- 1. The Company shall provide water pressure at the Main in a pressure range as specified in Section I6-11-95 (2) of the Regulations. Under normal conditions of use of water the pressure at a customer's service connection shall be not less than 25 p.s.i.g. and not more than 125 p.s.i.g.
- 2. When the Company provides pressure as specified in 1. above and the Customer desires a higher pressure, the Customer may install and maintain at its own expense a tank or booster pump as approved by the Company.
- 3. When the Company provides pressure as specified in 1. above, and where the water pressure is greater than the Customer wishes, it is the Customer's responsibility to install the proper regulating device approved by the Company to reduce the pressure to the extent desired.

E. APPLICATION FOR SERVICE

Application for Service shall be made at the office of the Company or by mail, on forms provided for that purpose. Once the applicant is accepted as a Customer, the Customer will be responsible for the payment of all bills until written notice to the contrary is received by the Company. The Company reserves the right to request a deposit on any Account at any time. Deposits may be required based solely on the Company's determination of the customer's credit history.

The Company will not refuse to provide utility service to a residential customer who lacks the financial ability to pay a security deposit as defined under Sec. 16-11-68 Customer Deposits of the Connecticut Agency Regulations of the PURA.

The Customer applying for Service must provide identification in the form of a Social Security number, state-issued identity card or state driver's license. If the Customer does not provide this information, an Account may still be established; provided, however, that if such information is not supplied within 15 days, Service may be terminated.

Customers wishing to establish an account in the name of an LLC must provide a guarantor to insure payment on the account.

Resumption of Service from a Tap or Service Connection which has been shut off at the Main requires a new application from the Customer.

No application for Service will be accepted from a Customer having a Delinquent Account until such Delinquent Account has been paid in full.

The application for Service shall include submission of plans for review by the Company for installation, inspection and testing of backflow prevention devices prior to Service activation.

The application for Service shall, together with these Rules and Regulations and the Regulations, regulate and control Service to the Premises.

In the event of a sale of property which is being provided Service, in order to provide a statement for a property to reflect the amount the seller of the property is responsible for, the Company will estimate the final bill based on historical usage. The Company will

require an actual reading of the water meter for any account with two or more consecutive estimated readings prior to the sale date.

The Company will also provide, at the request of the buyer or seller, a final bill based on an actual reading of the meter.

F. BILLING, PAYMENT, DEPOSITS & ADJUSTMENTS

- 1. Billing:
 - a. Once the applicant is accepted as a Customer, the Customer shall be liable for all charges for Service until such Customer's Service has been discontinued by the Company pursuant to instructions from the Customer, or until the Company receives notice of change in ownership or change in lessee, as applicable. The Company reserves its right to require documentation for the purpose of establishing ownership or tenancy.
 - Lien Rights The rates and charges of the Company, if not paid when due, b. shall constitute a lien upon the Premises served and a charge against the owner of the property. In addition, interest may be charged at the rate of 1.5% per month on amounts outstanding after the due date. Property owners must recognize that any unpaid bills for periods where the property is in the landlord's name constitute a lien against the premises served. The landlord is not responsible for any unpaid bills incurred by a tenant in whose name the account has been opened pursuant to a lease agreement. In that situation, the property may not be liened for such tenant's unpaid balance. Notice of delinquency may be placed on the Land Records in the form of a formal lien and foreclosure proceedings may be initiated. It is the property owner's responsibility to notify the Company of the inception and renewal of a lease and/or the termination of occupancy of their property. The Company reserves its right to require documentation for the purpose of establishing ownership or tenancy. The Company must be given access to the property to terminate Service when required.
 - c. Bills will be rendered for each Premises monthly or quarterly depending on the nature and location of the Premises and the Service classification.
 - Interest Fees All delinquent accounts may be charged a 1.5% interest rate.
 For monthly customers all bills at 34 days will be charged interest at a rate of 1.5% and every successive 30 days that the amount remains outstanding.
 For quarterly customers all bills at 64 days will be charged interest at a rate of 1.5% and every successive 30 days that the amount remains outstanding.
 - e. Water used for construction purposes, hydrant rigs or tanker trucks will be metered and billed in accordance with the company's approved rates and charges.
 - f. Miscellaneous sales are billed as the service is rendered.
- 2. Payments:
 - a. All bills are payable upon Receipt.

- b. Should any bill remain unpaid, the water may be shut off pursuant to Section G. of these Rules and Regulations. Whenever it has been necessary to discontinue Service to any Premises because of a violation of these Rules and Regulations or non-payment of any bill, the Customer shall, prior to Service being restored, pay all costs incurred by the Company in the disconnecting and reconnecting of Service together with all amounts otherwise due the Company as noticed in the Company's "Termination Notice" to the customer.
- 3. Customer Deposits. The Company may require from any Customer or prospective Customer a deposit to guarantee payment of bills. All tenants are required to pay a deposit, both residential and non-residential. Residential tenant customers are required to pay a deposit based on an amount equivalent to the estimated maximum bill for a 90-day period. In the case of a non-residential customer, the tenant must pay a deposit that is equal to one and one half (1.5) months' usage. An initial deposit of \$100 will be required, which is reviewed for adequacy after the first bill. If usage is less than \$100 for one and one-half (1.5) months, the deposit will be adjusted and the account will be credited. However, if usage is higher, the tenant may receive a request for an additional deposit. If a customer has an excellent credit rating with Aquarion, the security deposit for a new location may be waived. Deposits are subject to simple interest at the legal rates as subscribed under the General Statutes.

The Company will not refuse to provide utility service to a residential customer who lacks the financial ability to pay a security deposit as defined under Sec. 16-11-68 Customer Deposits of the Connecticut Agency Regulations of the PURA.

- 4. Adjustment of Bills:
 - a. Bills which are incorrect due to Meter or billing errors will be adjusted as follows:

Whenever a Meter in service is tested and found to have over-registered more than two percent (fast Meter), the Company will adjust the Customer's bill for the excess amount paid, as follows:

If the time at which the error first developed or occurred can be definitely determined, the amount of overcharge will be based thereon.

If the time at which the error first developed or occurred cannot be definitely determined, it will be assumed that the over-registration existed for a period equal to one-half of the time since the Meter was last tested. If more than one Customer received Service through the fast Meter during the period for which a refund is due, a refund will be paid to the present Customer only for the time during which such Customer received Service through the Meter.

b. Billing adjustments due to fast Meters will be calculated on the basis that the Meter accuracy should not exceed more than 102%. For the purpose of billing adjustment, the Meter error will be one-half of the algebraic sum of the error at maximum test flow plus the error at intermediate test flow. For example, if a meter tests at 100% accurate on the maximum flow and

100.4% on the intermediate flow the algebraic sum is 200.4%. One-half of this algebraic sum is 100.2% accuracy which is within the approved limits.

- c. When a Customer has been overcharged as a result of incorrect reading of the Meter, incorrect calculation of the bill or other similar reasons, the amount of the overcharge will be adjusted, refunded, or credited to the Customer.
- d. Whenever a Meter in service is found not to register, the Company may render an estimated bill. The Company will estimate the charge for the water used by averaging the amount registered over a similar period preceding or subsequent to the period of non-registration or for corresponding period in previous years, adjusting for any changes in the Customer's usage. When it is found that the error in a Meter is due to some cause, the date of which can be fixed, the overcharge or the undercharge will be computed back to but not beyond such date.

Whenever a Premises is found to be receiving Service without a Meter, the Company may render an estimated back-bill. The Company will estimate the charge for the water used based on the first 30 days of metered Service and as allowed under Section 16-3-102 of the Connecticut Agency Regulations of the PURA. The Company may issue the back-bill for Service for a period up to one year after the customer receives such service, unless the customer, either alone or with an individual other than an employee of the Company, by an affirmative act, is responsible for the inaccurate billing or fails to provide for reasonable access to the premises where the Company's meter is located by an employee of the Company during business hours for the purpose of reading the meter as allowed under Section 16-259a, Inaccurate Billing, of the Connecticut Agency Regulations of the PURA.

- e. When a Customer has been undercharged as a result of incorrect reading of the Meter, incorrect calculation of the bill or other similar reasons, the amount of the undercharge may be billed to the Customer for a period up to one year as allowed under Section 16-259a, Inaccurate Billing, of the Connecticut Agency Regulations of the PURA.
- f. Aquarion Water of Connecticut Leak Adjustment Policy

There shall be no abatement on the meter service charge, in whole or in part, by reason of the extended absence of the Customer, unless the service has been discontinued at his request. No abatement shall be made for leaks or for water wasted by improper or damaged service pipes or fixtures belonging to the Customer.

If as a result of a bill the customer was not made aware of a hidden leak until receipt of a bill based on an actual reading, the customer may request an adjustment. In the case of an undetectable leak, a *one-time* adjustment may be made under the following conditions.

1. To qualify for a leak adjustment the water billed must be three (3) times over the average level of consumption for the same billing periods.

- 2. The leak adjustment would be calculated to adjust the customer's bill by fifty percent (50%) of the excess over the average level of consumption for the same billing periods, but only if the Customer promptly and properly repairs such leak when detected.
- 3. The Company may also agree to flexible payment arrangements for the remaining 50% of the excess over said average level of consumption; however, such arrangement shall not exceed one year.

G. TERMINATION OF SERVICE

- 1. Termination Notices
 - a. Notices regarding the shutting off of Service for non-payment of a bill shall:
 - i. be sent via first class mail, in a sealed envelope at least thirteen (13) days prior to the actual shutting off of the Service.
 - ii. contain a statement of (A) the grounds for the proposed Termination, (B) the conditions required to prevent Termination, (C) the date after which Service may be Terminated unless the required conditions are met, and (D) the conditions for restoration of Service if Service is terminated, including but not limited to any reconnection fee or the possibility of the requirement of a deposit.
 - iii. contain a brief explanation of the Customer's rights as provided by the Section I6-3-100 (c) of the Regulations. Such explanation, if to a Residential Account, shall plainly indicate that the Company may not terminate Residential Service to the home of any Customer during such time as any resident therein is seriously ill, if the existence of such serious illness is certified to the Company in accordance with the requirements of Section 16-3-100 (e)(2) of the Regulations no later than thirteen (13) days after the mailing of the termination notice and if the certification is renewed every 15 days if the doctor has not specified the length of the illness. Such serious illness notice shall also plainly indicate that the Company has the right to contest before the PURA the validity of any serious illness certification it might receive.
- 2. Grounds for Termination
 - a. Termination Without Notice

Service may be terminated without notice in the event that the provision of Service would constitute a Condition determined by the Company to be hazardous. A hazardous condition is one that exists at a Customer Premises which could negatively impact the health or safety of Company personnel, Customers or the public via contamination of the drinking water due to cross connection.

b. Termination With Notice.

Service may be terminated with notice for the reasons listed below:
- i. In the event that the furnishing of Service would be in violation of any orders, ordinances or laws of the federal government or of the State of Connecticut or any political subdivision thereof.
- ii. Where Residential Service is being provided pursuant to a Reasonable Amortization Agreement and the Customer fails to comply with the terms of the Reasonable Amortization Agreement, or to simultaneously keep current the Customer's Account as charges accrue in each subsequent billing period.
- iii. In the event of tampering with wires, pipes, Meters or other Company equipment.
- iv. Fraud or material misrepresentation in obtaining Service from the Company.
- v. Customer use of the Company's equipment in such a manner to adversely affect such equipment or the Company's service to others, after the Customer has first been notified and afforded an opportunity to remedy the interfering influence.
- vi. Violation of or non-compliance with the rules of the Company as filed and approved by the PURA, including but not limited to these Rules and Regulations.
- vii. Failure to provide the Company reasonable access to its equipment, or in the event access thereto is obstructed or hazardous.
- viii. Failure or refusal of the Customer to reimburse the Company for repairs to or loss of Company property on the Customer's property when such repairs are necessitated or loss is occasioned by the intentional or negligent acts of the Customer or his agents.
- ix. Failure of the Customer to furnish such service, equipment, permits, certificates or rights-of-way as shall have been specified by the Company as a condition to obtain Service, or if such equipment or permissions are withdrawn or terminated.
- x. Non-payment of a Delinquent Account, provided that the Company has notified the Customer of the delinquency and has made a diligent effort to have the Customer pay the Delinquent Account.
- xi. Failure of a non-residential Customer to fulfill any other obligation of the Customer's contract with the Company.
- xii. In the event unauthorized unmetered Service or unauthorized metered Service is found to be used.
- xiii. In the event of a person's failure to provide identification in the form of a social security number, state-issued identity card, or driver's license no later than 15 days after opening an Account.
- 3. Grounds for Which Termination is Prohibited

- a. Service to a Customer may not be terminated for any of the following reasons:
 - i. Residential Service to the home of any Customer during such time as any resident therein is seriously ill or in a life threatening situation, as certified to the Company by a registered physician in accordance with the procedures prescribed in Section 16-3-100 (e) of the Regulations.
 - ii. During the pending period of any complaint, investigation, hearing or appeal initiated by a Customer under Section 16-3-100(f) or Section 16-3-100(g) of the Regulations, provided that the Customer continues to pay any undisputed bill or portion thereof during the pending period of such complaint, hearing investigation or appeal.
 - iii. In any manner that would violate any provision of the General Statutes.
 - iv. Refusal to reinstate Service to the home of any former Customer if any resident therein becomes seriously ill or a life threatening situation occurs, and as certified to the Company by a registered physician in accordance with the procedures prescribed in Section 16-3-100 (e) of the Regulations.
 - v. Service (or denial of Service) for failure to pay for merchandise purchased from the Company.
 - vi. Service (or denial of Service) for failure to pay for a different type of utility service or for a different class of Service at the same or another location or for repair of Customer owned or rented equipment.
 - vii. Service (or denial of Service) for failure to pay the bill of another Customer as guarantor thereof.
 - viii. Failure to pay an estimated bill unless the Customer refuses to provide access for the reading of the Meter during the Company's normal working day or to provide a Customer reading, except where the Company may estimate the Customer's bill in accordance with Section 16-3-102 or Section 16-11-71 of the Regulations.
 - ix. Service (or denial of Service) for delinquency in payment for Service by a previous occupant of the Premises to be served.
 - x. For any of the reasons set forth in this Section G.4.a., to a Residential Account on a Friday, Saturday, Sunday, state or federal holiday or day before any state or federal holiday or at any time the business offices of the Company are not open to the public or within one hour before the closing of such offices.
 - xi. For any of the reasons set forth in this Section G.4.a., to a Commercial Account or Industrial Account on a Saturday, Sunday, state or federal holiday or day before any state or federal holiday or at any time the business offices of the Company are not open to the public or within one hour before the closing of such offices.

- xii. Because of non-payment of a Delinquent Account for Residential Service, for a period of 90 days, where the person seeking to retain or obtain Service is the unnamed Customer and is divorced or legally separated from or has an annulled marriage from, the named Customer of the Delinquent Account or where an action is pending for a divorce, legal separation, or an annulment of the person from the named Customer of the Delinquent Account, provided that the conditions set forth in Section 16-3-100 (j) (1) of the Regulations have been met.
- 4. Termination of Service to Tenants
 - a. The Company shall not terminate, without first complying with the Regulations and these Rules and Regulations, Residential Service to a Premises where it has actual or constructive knowledge that said Premises has tenants in addition to the Customer to whom Service is billed or members of his/her Family and/or household.
 - b. The Company will make a good faith effort prior to 13 days before Termination to notify the occupants of the Premises subject to Termination of their rights to continued Service.
 - c. Notification to Tenants.

Notification to tenants shall contain the following:

- i. The date of proposed Termination.
- ii. If the Premises are individually metered, the right of the tenant to establish Service in his or her own name without liability for the balance owed or a security deposit and the right to deduct his or her payment for such Service from his or her rent.
- iii. The intent of the Company to request the establishment of a receivership or other arrangement, if the Premises is provided Service via a master Meter.
- iv. The telephone number and address of the local office of the Company and the telephone number and address of the Consumer Assistance Information Unit of the PURA.
- d. Where Service is provided through a master Meter, the Company may, with the written agreement of all of the occupants, establish Service in the name of the occupants, pursuant to a plan for billing and payment agreeable to all parties. The agreement shall contain the following terms:
 - i. Service shall not be terminated if payment of the agreed share of any of the occupants is received on the Account.
 - ii. The arrangement may be discontinued by the Company thirteen (13) days after written notice of its intent to discontinue the arrangement to all parties.

- iii. Upon written request of any of the occupants of discontinuance of the agreement, the Company shall notify each of the occupants that the agreement shall be discontinued at any time after thirteen (13) days after the mailing date of the notice.
- e. Termination of Service to tenants shall be governed by the Section 16-3-100(i) of the Regulations.
- 5. Theft of Service Fee

In the event Aquarion finds that a customer, whose water service has been terminated for any of the reasons under Section G 2(a) or 2(b) above, has knowingly turned the water back on without authorization by the Company, the customer will be assessed a Theft of Service Charge as approved by the PURA and listed in Aquarion's miscellaneous charges.

H. TEMPORARY SERVICE

- 1. When the Company renders temporary or intermittent Service to a Customer, it may require that the Customer bear the entire cost of installing and removing the temporary facilities, including but not limited to any metering device, in excess of any salvage realized.
- 2. When service is provided for a temporary Service, construction or demolition purposes, the Company will require a deposit of \$4,000 in advance to cover the cost of removing and abandoning the facilities in the event the Customer fails to perform the abandonment.

If the temporary service is properly abandoned by the Customer, the Company will return the deposit. Deposits are subject to simple interest at the legal rates as subscribed under the General Statutes.

If the Customer fails to properly perform the abandonment within thirty days of a final meter reading, the Company will properly abandon the service and all costs incurred by the Company will be charged against the deposit. In the event the costs exceed the amount deposited with the Company, the Customer will be responsible to reimburse the Company for these costs. In the event the costs are less than the amount deposited with the Company will reimburse the Customer the remaining balance.

3. The charge for intermittent Service shall not be less than the applicable minimum charge.

I. METERED SERVICE

1. Obligatory Metered Service. Metered Service is required for all Premises not covered under Section J. of the Rules and Regulations.

2. Charges:

a. There is a minimum charge for Service which is determined by the size of the Meter. Water use is charged in accordance with rates filed with and

Page 14 March 22, 2013 approved by the PURA. All metered water, whether used or wasted, shall be paid for by the Customer.

b. If the Company cannot obtain an actual Meter reading, the water charge for the current billing period will be estimated.

In the event that the Company must issue an estimated bill to a customer for two consecutive billing periods, the company shall send to the customer through the mail, a notice which bears the legend "IMPORTANT NOTICE" and which informs the customer that it is imperative that the company obtain an actual reading in order to prevent error and hardship. The notice shall inform the customer of the next scheduled visit by a company representative in order to allow the customer to make arrangements for a company reading, if the customer chooses, or to allow the customer to make a customer reading on the same date.

- 3. Conjunctive Billing. When a Premises is provided Service by more than one Meter, the water charge will be calculated at the rate applicable to the total combined water use shown by all the Meters serving the Premises, except that the minimum charge will be applicable to each Meter.
- 4. Installation of Meters and Meter Vaults:

All new construction will require that a meter be installed at the time that the service connection is made to the main.

a. The Meter and any associated reading devices are the property of the Company and will be furnished and installed without charge to the Customer unless it is to be used for temporary or intermittent Service. All Meters installed for new and existing Residential Service or Commercial Service shall be the automated reading type equipped with a Radio Reading Device attached to the exterior

of the house or building and connected to the register by a multiple conductor cable or a Radio Reading Device attached directly to the meter. The Company will determine the appropriate size, type and number of Meters for each Premise. Separate Premises will be separately metered and billed. The Company will not furnish or maintain Meters for more than one measurement of water for a single Premises.

- b. Meter Pits or Meter Vaults, including the Meter Vault cover, become the property of the Customer upon installation, and the Customer is responsible for maintenance and repair of the Meter Vaults as needed from time to time. Meter Pits or Meter Vaults should be kept free of debris, which will help prevent the Meter from freezing or being otherwise damaged.
- 5. Location of Meters. The Company shall determine the location of Meters; all meters must be installed at the time the service is connected to the main.
 - a. **Single Family Residential Construction**. All meters must be installed in a Company approved meter pit. Any inside meter installation must be approved by the company prior to the service being connected to the main. Meters installed inside a building must be installed in a suitable location which will

provide adequate protection against freezing or other damage and ready access for testing and reading. Each inside meter setting must be located where the Service Line enters the building in a horizontal position not less than 18" or more than 36" above the floor.

b. Multi Family Residential Construction.

For multi family construction with less than six (6) individual living units, the Company will require an individual metered connection for each unit. The Company will allow the applicant to install one service connection to the main and manifold the individual unit connections to facilitate construction. The Company will size the service to insure proper service to each living unit. The Company will allow the following meter installation methods:

Inside Meter Installation. For meters installed inside of the premise, a separate meter room with outside access and key must be provided to the Company. Each individual meter must be installed with a locking style meter horn as approved by the Company. All meters must be installed in a suitable location which will provide adequate protection against freezing or other damage. Each inside meter setting must be located where the Service Line enters the building in a horizontal position not less than 18" or more than 36" above the floor.

Outside Meter Installation. All meters installed outside of the premises must be installed in a Company approved meter pit. Each individual living unit will have a dedicated meter pit setting.

For multi family construction greater than six (6) individual living units and due to construction constraints, the Company will allow the installation of one (1) metered connection to service the premises:

Inside Meter Installation. For meters installed inside of the premise, a separate meter room with outside access and key must be provided to the Company. All meters must be installed in a suitable location which will provide adequate protection against freezing or other damage. Each inside meter setting must be located where the Service Line enters the building in a horizontal position not less than 18" or more than 36" above the floor.

Outside Meter Installation. All meters, installed outside of the premises must be installed in a Company approved meter pit.

When it is determined by the Company that the required meter size is greater than 2", the customer will be required to install the meter with a inside meter setting only in order to comply with Confined Space Regulations.

c. Commercial Construction.

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For commercial construction, the following criteria will apply:

Inside Meter Installation. For meters installed inside of the premise, a separate meter room with outside access and key must be provided to the Company. All meters must be installed in a suitable location

which will provide adequate protection against freezing or other damage. Each inside meter setting must be located where the Service Line enters the building in a horizontal position not less than 18" or more than 36" above the floor.

Outside Meter Installation. All meters installed outside of the premises must be installed in a Company approved meter pit.

When it is determined by the Company that the required meter size is greater than 2", the customer will be required to install the meter with a inside meter setting only in order to comply with Confined Space Regulations.

- d. Industrial Construction. For industrial construction, meters must be installed inside of the building in a separate meter room with outside access and key must be provided to the Company. All meters must be installed in a suitable location which will provide adequate protection against freezing or other damage. Each inside meter setting must be located where the Service Line enters the building in a horizontal position not less than 18" or more than 36" above the floor.
- e. Service Reuse. In the event that an existing service connection and meter is to be reused due to a change in the original use of the property, the customer must apply to the Company for approval. The Company will evaluate the change in use and apply the appropriate metering requirements.
- f. If the Company determines that no suitable inside location can be made available, or if there is no existing structure to provide said suitable location at the time that the service connection to the main is installed, it will require that the meter be installed outside in a Meter Vault or a Company-approved aboveground enclosure, located and built in accordance with the Company's specifications at the Customer's expense.
- g. When a Premises is supplied by a Service Line judged by the Company to be unusually long, over 100 feet, the meter be installed outside in a Meter Vault or a Company-approved above-ground enclosure, located and built in accordance with the Company's specifications at the Customer's expense.
- 6. Damage to Meters.

The Customer shall be responsible for the Meter installed at a customer premise indoors or in a meter pit and shall provide for proper protection of the Meter against freezing, damage by hot water, and damage or loss by any other means. The repair of damaged Meters shall be done by the Company, and the Customer shall assume the costs of such repairs, or if necessary, the replacement of the Meter.

- 7. Accuracy of Meters.
 - a. All Meters will be tested for accuracy before installation and periodically thereafter. No Meter will be placed or kept in service unless it registers within the limits of accuracy specified by the PURA.
 - b. Upon written request of a Customer, the Company will test the accuracy of a Meter, without charge to the Customer, in use at the Customer's Premises

provided the Meter has not been tested by the Company within one year prior to such request and provided further that the Customer shall agree to abide by the results of such test as the basis for any adjustment of disputed charges. Upon receipt of such request, the Company shall notify the Customer in writing within one week of the request that such Customer or his or her authorized representative may be present at the Meter test. The Company will supply a written report of the test to the Customer.

- c. The provisions of this Section do not apply to Fire Service Line Meters owned by the Customer.
- 8. Tampering with Meters.

Meters shall not be opened, adjusted, removed, have devices attached, or interfered with in any way, by the Customer or his agent.

9. Vacancy of a Tenant Occupied Property.

In the event of a vacancy in a rented property, an owner may retain responsibility for the water bill at his rental property or have the new tenant contact the Company to establish service. The premise must have one meter and one curb valve supplying one residential residence.

In order to transfer billing to a new tenant and put the account in the name of the tenant, the tenant must complete an application for water utility service (available on the AWC website: <u>www.aquarionwater.com</u>). Applications for water service must be for a period of a minimum of six months and must be mailed to the Company along with an accompanying deposit. The application must be received before the start of the lease period in order to transfer billing to a tenant.

At the termination of the lease, the tenant will be final billed and the account put into the name of the owner. A letter will be mailed to the owner notifying him of the change and allowing him two weeks' notice in which he may contact the Company to have the service shut-off at no cost to the owner. At the time service is restored to the premise, the party requesting service will be billed the "turn-on at curb fee" in accordance with the Company's tariff schedule.

10. Vacancy of an Owner Occupied Property.

In the event of a vacancy in an owner occupied property, the owner has the option of either:

- a. Paying minimum quarterly charge; or
- b. Turning off the service at the curb and paying for the turn-on at curb fee when service is restored.
- 11. Abandoned Property

A minimum service charge will be billed unless the Service is shut at the curb box.

12. Theft of Service Fee – In the event Aquarion finds that a customer is receiving water service without a meter, the customer will be notified to install a meter and remedy

the situation. If the customer does not allow Aquarion personnel access to the property to install a meter, the customer will be assessed a Theft of Service Charge as approved by the PURA and listed in Aquarion's miscellaneous charges. In addition, a customer who knowingly and with purpose alters Aquarion Water Company's infrastructure in order to receive water without payment will be assessed the Theft of Service Charge.

13. Manual Meter Reading Fee – In the event a customer refuses to allow the installation of a meter equipped with a Radio Reading Device or requests that the Company install a manually read meter, the Company will do so and assess the customer a Manual Meter Reading Fee based on the Customers monthly or quarterly billing schedule.

J. FLAT RATE SERVICE

1. Limits of Service.

Flat Rate Service is no longer available to new Residential Accounts/Premises except in systems where only Flat Rate Service is available. Flat Rate Service is available to existing or acquired Accounts if Flat Rate Service presently exists for those Accounts and if the Company determines that converting to Metered Service is not practical or feasible. The Company reserves the right to convert Flat Rate Service to Metered Service at any time.

- 2. Establishment of the Rate.
 - a. The flat rate is the sum of specific charges for all fixtures serving the Premises. To establish the rate, a properly identified Company representative will inspect the Customer's Premises from time to time. The Customer agrees to provide permission for such inspections.
 - b. A minimum charge will apply to each flat rate Account in accordance with the current PURA-approved rate schedule.
- 3. Limits on Water Use.
 - a. Flat Rate Customers Agree:
 - i. To notify the Company of any changes or addition in fixtures, or in their use at the time the change is made. Consequent modifications in the rate, if any, will be pro-rated from the date of change. In this connection, no fixture is to be considered as discontinued until it has been disconnected.
 - ii. To maintain their plumbing and Service Line in good repair, and to make repairs promptly.
 - iii. Not to waste water.
- 4. Hose Use.

Hose use is covered under the charge for faucets, sill cocks, yard hydrants or other outside connections. The charge for the first faucet, hillock, or yard hydrant is

based upon the frontage of the property, in accordance with the rate schedule. For each additional such fixture, there is a supplemental charge.

K. ACCESS TO CUSTOMER'S PROPERTY

- 1. As a condition to continuing Service, the Customer agrees that the Company has the right of access during normal business hours to the Customer's Premises for the following purposes:
 - a. To inspect for possible cross-connections between the Customer's equipment and facilities and the public water supply and to test the proper functioning of backflow prevention devices and for any other condition which might be hazardous or detrimental to its equipment or service to others or to meet the requirements of Section I9-I3-B102 of the Regulations;
 - b. To read, inspect, repair, replace, or alter Meters and accessory equipment; or
 - c. To verify number of, condition of, and elimination of fixtures in a Premises on a flat rate.
- 2. The Customer agrees to provide such access by employees of the Company who have displayed proper identification.
- 3. **Missed Appointment Credit to Customers**. Aquarion is committed to providing on-time appointments and will meet the agreed-upon appointment time set with our customer or automatically credit the customer's account with a "missed appointment" fee as stated in Aquarion's miscellaneous charges when (a) the customer has scheduled the appointment at least 48 business hours prior to the date of the appointment; (b) the service person does not arrive for the appointment within the prescribed 4-hour appointment window; and (c) the service person or other company delegate does not call in advance of the 4-hour appointment window to cancel or reschedule the appointment.

Missed Appointment Fee to Customers. A customer who schedules an appointment will be charged a "missed appointment" fee as stated in Aquarion's miscellaneous charges when (a) the customer has scheduled the appointment at least 48 business hours prior to the date of the appointment; (b) the service person has arrived on-time during the 4-hour appointment window; (c) the customer is not home when the service person arrives, or the service person is otherwise denied access; and (d) the customer has not called the Company in advance of the 4-hour appointment window.

L. SERVICE LINE

1. Taps

The Tap is the property of the Company and will be installed by the Company at the Customer's expense, the charge determined by its size and the status of the Main to which it is to be connected. The Company will determine the size of the Tap on the basis of a Customer's estimated water use.

2. Tap Shut-Offs

When a Premises is to be abandoned or demolished or a Service Line is to be abandoned, the Customer agrees to notify the Company promptly and to close the Tap at the Customer's expense. The Customer must notify the Company to shut the Tap. Should the Customer fail to complete such work promptly, it will be done by the Company at the Customer's expense.

- 3. Service Connections
 - a. Customer Service Lines, including the curb box, are owned and maintained by the property owner. Any repairs will be at expense of the property owner.
 - b. All Service Connections shall have a curb valve, which is owned by the Company, and is accessible by means of a curb box which is owned by the customer, located at or near the property line. Combination Service Lines shall have individual curb valves for both the fire and domestic, commercial or industrial connection located at or near the property line. Any repairs will be at the expense of the property owner.
 - c. The Company owns and is responsible for the maintenance and repair to all Service Connections, which is the portion of the service line from the tap in the main up to and including the curb valve.
 - d. The Customer or other applicant shall pay the full cost of a new Service Connection including all excavation, backfill, removal and replacement of paving, walks, curbs, etc., when such connection is made to a Main subject to an Extension Contract.
 - e. The Company will bear the cost of a new Service Connection made to a Main not subject to a Main Extension Contract, except that the cost of excavation, backfill, removal and replacement of paving, walks, curbs, etc., shall be borne by the Customer or other applicant. The Company may also charge a fee for the Tap.
 - f. All excavation, backfill, removal and replacement of paving, walks, curbs, etc., shall be done in accordance with the Company's specifications, and in conformity with all applicable State and municipal regulations.
 - g. Replacements: The Company will determine if it is necessary to replace a Service Connection. Such replacements will be furnished, installed, owned and maintained by the Company at its expense including the cost of excavation, backfill, removal and replacement of paving, walks, curbs, etc.
- 4. Service Lines
 - a. It is the Customer's responsibility to furnish, install, own and maintain at his own expense the necessary curb box and Service Line from the Curb Stop to the Premises in accordance with the requirements of the Company. Any repairs will be at the expense of the property owner. A curb box meeting the specifications of the Company shall be installed at each Curb Stop.

- b. No new Service Line shall serve more than one Premises without the approval of the Company in advance.
- c. Where approval has been granted for two or more Service Lines to supply the same Premises, and the Service Lines are interconnected, the Customer must furnish, install and maintain a check valve on each line.
 - i. Each residential Service Line must have a Main valve (cellar valve or house valve) and each commercial or industrial Customer must have a full valve (gate valve or ball valve) immediately inside the cellar (if any) or foundation wall. The Company reserves the right to specify the location of any valve in order to ensure accessibility in case of an emergency.
 - ii. The Main valve and the backwater valve (valve after Meter) in addition to the adjacent piping in the vicinity of the Meter to the Premises shall be installed, owned and maintained by the Customer in good condition to permit operation of the valve in an emergency and to enable the Company to change Meters installed inside the Premises.
- d. Enlargements:
 - i. When a request is made for an enlargement of an existing Service Connection and the Company determines that the existing Service Connection is not in need of replacement, the Company may allow such enlargement to be made at the sole expense of the Customer.
 - ii. The existing Tap shall be shut off in accordance with the provisions of Subsection L.2. of these Rules and Regulations.
- e. Applications:
 - i. Service Connections 2" or less in Diameter

All applications for Service Connections 2" or less in diameter shall be made to the Company by the owner of the Premises to be supplied or by his authorized agent who may be his plumber. These applications must be made, and all necessary charges paid, at least five (5) days, excluding weekends and holidays, prior to the desired time of installation. The owner or his agent must make arrangements with the Company for scheduling the time of the installation of the Service Connection at least one week in advance of the desired date. These arrangements should be completed and confirmed before any excavation work is started. The Customer or other applicant directly or through his agent agrees to take water from the Company subject to the Rules and Regulations.

ii. Service Connections over 2" in Diameter

Application for Service Connections larger than 2" in diameter shall be made to the Company. Such requests shall include a sketch showing the desired size and location. The Customer or other applicant shall, if requested by the Company, furnish his estimated requirement as to fire flow, pressure, rate of consumption and such other pertinent data that will assist the Company in determining the adequacy of the size. The Company will furnish an estimate of the applicable charge for each Service Connection larger than 2" in diameter, and will schedule the installation upon receipt of payment of the estimated cost by the Customer or other applicant. Charges for such connection will be based on the actual cost.

- f. The Company will determine the size of the Service Connection on the basis of estimated water use.
- 5. Service Connection to Vacant Land

Without express approval of the Company, a Service Connection will not be made where there is no Premises or structure on the property.

- 6. Standards for Service Line Installation
 - a. Depth

Service Line shall be installed at a minimum depth of 4-1/2 feet or to a depth below the frost line if the frost can penetrate to deeper than 4-1/2 feet.

- b. Location
 - i. Service Line shall run at right angles to the Main in a straight line to the Premises to be served. The pipe shall not cross property which it does not serve nor be installed under a driveway. The approval of the Company shall be secured as to the proper location for the Service Line. Any exceptions to these requirements must comply with Section 16-11-64, Location of Service Pipe, of the Connecticut Agency Regulations of the PURA.
 - ii. The Customer is urged to obtain the Company's recommendation for the proper Customer Service Line size which shall in no case be less than 1" in diameter. The Company reserves the right to specify such diameter and may withhold the installation of the Service Connection until its specifications have been met.
- c. Materials
 - i. Service Line shall be of copper, cement-lined ductile iron, or other Company-approved material.
 - Copper shall be cold drawn or soft annealed, seamless copper type "K" which meets A.S.T.M. standard specifications for Lake copper B4-27 of standard weight and dimensions for copper service tube and able to withstand being flattened and then bent back on itself 180 degrees while cold, without cracking on the outside of the bent portion.
 - iii. Cement-lined ductile iron must meet American Water Works Association specifications for this use.

- iv. No other material may be used without the specific approval of the Company.
- d. Trenching
 - i. Service Line may be laid in the same trench with other underground utility facilities except oil or sewer pipes, provided twelve inches separation, in a horizontal plane, shall be maintained and provided such arrangements shall be mutually acceptable to the Customer and the Company. In order to avoid possible damage, the Customer or his agent performing the excavation for a new or renewed Service must notify the Company and any other companies or other agencies having sub-surface rights prior to commencement of work.
 - ii. The ditch underneath, around and over the pipe shall be backfilled with good material thoroughly tamped to secure a firm support. To disclose any settling of the backfill which may need correcting, newly filled ditches shall be re-inspected at intervals.
- 7. Inspection

The Customer Service Line must be left uncovered until inspected by a Company representative. The Service Connection to the Company Main will not be made until such inspection has been performed, a meter installed and the Service Line approved. Final approval of the Customer Service Line may be subject to a satisfactory hydrostatic test. A tamper proof lock will be installed in each curb valve at the time of Tap installation and will be removed by the Company at the time the service trench is inspected. The Company requests two (2) working days notice to schedule trench inspection and/or lock removal.

M. FROZEN SERVICE/METER

Charges for thawing of frozen services shall be paid for by the party owning the service. Where the main to inside the cellar wall is in part owned by the Company and in part owned by the Customer, the Company shall thaw out the frozen service, and one-half the cost shall be paid by the Customer.

If a meter installed at a customer premise indoors or in a meter pit should become damaged due to freezing or other customer negligence, the company shall repair and replace the meter and bill the customer for the repair or replacement of the Company meter under the approved rate.

N. RESPONSIBILITY FOR LEAKS AND REPAIRS

The Customer is responsible for repairing all leaks and for all other repairs, renovations and maintenance to all Customer-owned pipe, fixtures and equipment. If a leak develops in a Customer Service Line or a Customer-owned Service Connection, the Customer shall repair it within 7 (seven) days' notification by the Company by telephone, in-person or in writing to the Customer. If such repair work is not completed within such period, the Company will discontinue Service until the leak is repaired.

O. CUSTOMER'S PLUMBING STANDARDS

- 1. The plumbing in all Premises served by the Company must conform to all applicable State and municipal regulations.
- 2. Where a standpipe, tank or cistern is used, it shall:
 - a. Be constructed to protect the water from pollution;
 - b. Conform to the provisions of Regulation 119 of the Sanitary Code of the State of Connecticut, and to all other applicable regulations;
 - c. Provide means of access for annual inspection;
 - d. Be equipped with an adequate drain; and
 - e. Be equipped with an air gap or an approved backflow prevention device.
- 3. The Customer should be careful when opening a valve to let water through a Service Line. The valve should be opened gradually and a convenient faucet on the outlet side of the Service Line should be left open to allow air to escape.
- 4. Any device required for the regulation of pressure at the Customer's Premises shall be approved by the Company and shall be furnished, installed, owned and maintained by the Customer at his own expense.

P. SANITARY REGULATIONS, WATER

The Customer must comply with all sanitary regulations in the construction and use of his water pipes, fixtures and equipment.

For Sanitary Regulations, see Public Health Code of State of Connecticut and all other applicable State and Municipal Regulations.

Q. FIRE SERVICE - PRIVATE

1. Installation

Private Fire Service Lines, Private Fire Hydrants or Fire Sprinkler Systems will be installed in accordance with all State, municipal, Company and other applicable regulations covering Service Lines.

- 2. Meters and Reduced Pressure Devices (RPD)
 - a. All sprinkler systems and private Fire Service Lines shall be subject to current DPH and Company regulations concerning cross connections and backflow prevention. An RPD shall be installed on each Service that falls under these regulations.
 - b. Meters and RPD approved by the DPH and the Company for private Fire Service Lines shall be furnished by and installed at the expense of the property owner.
 - c. Fire Meters owned by the Customer will be tested and maintained by the Customer at his expense in accordance with the Company's requirements.

3. Access

Company representatives shall be granted access to fire Meters and alarm systems at all times.

4. Use

No person shall take water from any private fire hydrant, hose plug, sprinkler system, or Fire Service Line except for testing or in case of fire. In the event Aquarion finds that a customer is taking water from a private fire hydrant, hose plug, sprinkler system, or Fire Service Line for any purpose other than for testing or in the case of a fire, the customer will be assessed a Theft of Service Charge as approved by the PURA and listed in Aquarion's miscellaneous charges.

5. Abandonment

The customer shall provide the company with approval from the local fire marshal and a letter from their insurance carrier acknowledging that the fire service is being abandoned or disconnected before a customer's request for discontinuance of a private fire service can be processed by the company. The customer is responsible for billings until terminated.

6. Anti-Freeze Solutions

For sprinkler systems supplied with water by the Company, the use of antifreeze solutions other than water solutions of pure glycerin (C.P. or U.S.P. 96.5% Grade) or propylene glycol (U.S.P. Grade) is prohibited. The use of antifreeze solutions must conform to any applicable State or local health regulations.

- 7. Charges Private Fire Service Lines and Combination Service Lines
 - a. An annual charge will be made for each private Fire Service Line based on the size of the Service Line at the Main.
 - b. An annual charge will be made for each Combination Service Line based on the size of the Service Line at the first Fire Service Line.
 - c. The above annual charges are payable in equal quarterly or monthly installments.

R. FIRE SERVICE - PUBLIC

1. Charges - Inch-Feet

Each municipality served by the Company shall be charged annually for fire protection on the basis of the inch-feet of pipe in service on December 31 of the preceding year. The calculation of pipe in service shall be based on all pipe 6 inches and larger in diameter. This annual charge is payable in equal monthly or guarterly installments.

2. Charges - Hydrants

Each municipality also shall be charged annually for each public hydrant owned by the Company within the limits of the municipality as of December 31 of the preceding year. This annual charge is payable in equal monthly or quarterly installments.

3. Private Charges for Public Service

In areas where the municipality does not accept such charges for public fire service, the Customers covered by the service must pay the charges.

- 4. Repairs
 - a. Hydrants owned by the municipality will be repaired by the Company at the municipality's expense upon written order from the appropriate municipal authority.
 - b. Hydrants owned by the Company will be maintained by the Company at its expense.
- 5. Unauthorized Use

No water shall be taken from a public hydrant except for fire purposes, unless authorized by the Company in writing. Persons using water without permission of the Company shall be prosecuted to the full extent of the law. In the event Aquarion finds that a customer is taking water from a public fire hydrant, except as authorized by the Company, the customer will be assessed a Theft of Service Charge as approved by the PURA and listed in Aquarion's miscellaneous charges.

6. Fire Training/Equipment Testing

Fire departments desiring to use water from hydrants for training or equipment testing or for any other purpose except extinguishing fires must notify the company in advance.

S. INTERFERENCE WITH OPERATIONS

A Customer interfering with or endangering the proper operation of the Company's system or its Service to others is liable for any resulting damage. Further, if directed by the Company, the Customer shall without delay make such alterations to his plumbing system or water appliances as the Company shall require for the safe and proper operation of the Company's Service.

T. SPECIAL REQUIREMENTS

A Customer whose water needs cannot be met adequately or safely by the regular facilities of the Company may be required by the Company to install additional facilities at his own expense. This Section T. is intended to apply, but not to be limited to, the delivery of adequate pressure to multi-story buildings, to water-operated air-conditioning units, to equipment requiring high rates of supply for intermittent periods, and to equipment requiring ultra pure water for commercial or industrial processes.

U. LOW PRESSURE

A Low Pressure Service Agreement will be required of an applicant when in the opinion of the Company the Premises to be served is at such an elevation that normally satisfactory minimum average water pressure may not be available. Under a Low Pressure Service Agreement, the applicant agrees to accept Service furnished under such pressures as may be available. For further information see Addendum I.

V. HIGH PRESSURE

A High Pressure Service Agreement will be required of an applicant when in the opinion of the Company the Premises to be served is at such location that the pressure might be higher than 125 PSI. Under a High Pressure Service Agreement, the applicant agrees to accept Service furnished under the available conditions. For further information see Addendum II.

W. COMPANY RESPONSIBILITIES

- 1. The Company undertakes to supply its Customers with water which meets the requirements of the DPH, and which has such physical and chemical properties as to make it acceptable for domestic use. However, the Company does not undertake to render any special service, to maintain any fixed pressure, or to deliver any fixed quantity of water or special quality water.
- 2. The Company shall not be liable for any damage to person or property sustained as a result of any break, failure or accident in or to its system or any part thereof which is not the direct result of the Company's negligence, or which, despite being known to the Customer, was not reported to the Company by such Customer in time to avoid such damage.
- 3. No agent or employee of the Company shall have authority to bind the Company by any promise, agreement or representation not provided for in these Rules and Regulations.
- 4. From time to time the Company may temporarily discontinue Service to flush its Mains or to make necessary repairs or alterations. In such an event, the Company will make every reasonable effort to notify its Customers in advance of such interruption.
- 5. The Company will notify the Department of all planned or unplanned outages of 4 hours or more. The Company is required to provide written confirmation of all unplanned outages of 4 hours or more. In the event of an unplanned outage of less than 4 hours, the Company will advise the Department by e-mail of the outage as a courtesy.

X. CONSERVATION OF WATER

- 1. The Company maintains a water conservation plan in compliance with the Regulations concerning water conservation.
- 2. The Company may restrict the use of water by any Customer or class of Customers when in the Company's judgment such restriction is in the public interest.

3. A Customer shall repair or alter his Service Line, plumbing system or water using equipment when, in the Company's opinion, the Customer's installation operates wastefully.

Y. WATER MAIN EXTENSION

The Company has adopted specific contract documents which govern Main extensions. For further information, please see Addendum III.

Z. CROSS CONNECTION REGULATIONS

1. Section 19-13-B37 of the Regulations - Cross Connections Between Water Supplies Prohibited

No physical connection between the distribution system of a public potable water supply and that of any other water supply shall be permitted, unless such other water supply is of safe sanitary quality and the interconnection of both supplies is approved by the State Department of Public Health. No officer, board, corporation or other person or group of persons, owning or having the management or control of any potable water supply furnished to any municipality or water district, shall supply water to any person, firm or corporation who maintains such connection or is not in compliance with Section 19-13-B38a of the Regulations of Connecticut State Agencies. Upon written order by the local health department or the Department of Public Health, an officer, board, corporation or other person or group of persons, owning, managing or controlling any public water system shall terminate existing water service to a site where any person, firm or corporation 19-13-B38a of the Regulations of the Regulations of Connecticut State Agencies.

2. Categories of Concern – Swimming Pools and Tanks

Well Connections

1. A new service will be connected to property with an existing well service under the following conditions:

- a. The permanent abandonment of the existing well by removing of the pump, electrical systems and closure of the well with a bentonite type solution.
- b. Provide AWC a copy of the well abandonment permit from the applicable service town or city.

2. In the event the existing well owner request permission to maintain the existing well, the owner must perform the following:

a. Obtain permission from both the local health department and the State Department of Public Health authorizing the well to be used on the property. File proof of approval with AWC.

- b. Once approval is received from the local and state health departments the well must be physically removed from connection to the internal plumbing lines by means of an air gap and an approved cross connection device must be installed on the main line entering the property from the AWC's distribution system.
- c. The customer agrees to provide access to AWC cross connection inspectors annually for the purpose of testing the cross connection device as required by the State Department of Public Health. The customer will be responsible for all costs associated with the annual inspection and testing.
- d. Failure to comply with these regulations can result in termination of water service as approved by the Department of Public Health.

Swimming Pools and Tanks

Piping systems supplying swimming pools or other receptacles, shall be so arranged as to preclude water from re-entering the distribution system by siphonage or other means, and shall in each case be approved by the Company. In general, an air gap shall be provided so that the feed pipe discharge is well above the highest possible water level in the receptacle.

3. Plumbing Regulations

The plumbing on all Premises supplied from the Company's system shall conform with the State of Connecticut and municipal public health codes.

- 4. The Company is required to inspect all commercial, industrial, public authority, and residential sites where the potential for cross connections exist. Customer sites requiring cross connection inspections will be subject to the inspection and testing charge prescribed in our approved miscellaneous charges.
- 5. Conn. Agencies Regs. §19-13-B38a.(f)(6) requires homeowners to inform the public water system of any testable backflow prevention devices prior to installation of any of those devices.
- 6. State regulations administered by the DPH finds that Conn. Agencies Regs. § 19-13-B102(f)(2) requires a public water system, such as the Company, perform inspections at premises where irrigation systems are known to exist. This backflow inspection is performed by the Company, and any required testing of a backflow prevention devise will be subject to the charge prescribed in our approved miscellaneous charges.
- 7. The Company is required to ensure that all cross connection prevention devices have passed the required tests.
- 8. The Company reserves the right to terminate Service to Customers who do not provide access for inspection and testing, fail to correct cross connection violations, fail to repair backflow prevention devices or fail to pay for testing or repair services rendered.

ADDENDUM I

LIMITED SERVICE AGREEMENT

THIS AGREEMENT	("Agreement") made this	day of	, 20, by and
between	, loc	ated at	acting herein
by	, hereunto duly authorize	ed (the "Applicant"), and owner of a certain
parcel of land situated in the Town of, County of and State of			
Connecticut, and described as follows (the "Premises"):			

DESCRIPTION: _____

and AQUARION WATER COMPANY OF CONNECTICUT, a corporation specially chartered by the General Assembly of the State of Connecticut, and located in the City of Bridgeport, in the County of Fairfield, in said State (the "Company").

WHEREAS, Applicant has applied to the Company for water service and has entered into an agreement with Company to furnish water service to the Premises, and

WHEREAS, Applicant has been advised by the Company and acknowledges that the Premises are at such an elevation that normally satisfactory minimum average water pressure may not be available for supply by the Company to said premises, and

WHEREAS, Applicant agrees to file and record a copy of this fully executed Agreement in the Office of the City or Town Clerk to be attached to the property deed.

NOW, THEREFORE, Applicant, for itself and for its heirs, successors, and assigns, hereby agrees (i) to accept water service from the Company furnished under such water pressure, whether satisfactory or not, as may be made available at the Premises by the Company, (ii) should such system be determined by Applicant to be necessary and/or convenient for the Premises, to furnish, install, operate and maintain Applicant's own booster pumping system, to be located after the Company's water meter, in order to increase water pressure to the Premises, (iii) should such system be determined by Applicant to be necessary and/or convenient for the Premises, to furnish, install, operate and maintain an appropriate backflow prevention device and low pressure shutoff, (iv) to accept full responsibility for taking such action as may be necessary to increase water pressure at the Premises to an acceptable operating pressure and (v) to release the Company from any liability which may hereafter result from the provision by the Company of water service to the Premises at water pressures which may be less than normally satisfactory minimum average water pressure.

IT IS UNDERSTOOD that service under this agreement is subject to and governed by the prevailing rules, regulations, and rates of the Company.

Page 1 of 3

In the presence of:			
WITNESS:	<u>AQI</u>	JARION WATER COMPAN	Y OF CONNECTICUT
	By (GEORGE S. LOGAN DIRECTOR – ENGINEERING	G & PLANNING
WITNESS:	APF	PLICANT:	
	By		
STATE OF CONNECTICUT)	ss Bridgeport	20
COUNTY OF FAIRFIELD)	ss. Diagepoir	20
Personally appeared, GEORGE	LOGA	AN, DIRECTOR – ENGINEE AQUAR	RING & PLANNING, ION WATER COMPANY
OF CONNECTICUT, signer and same to be the free act and deer officer thereof, before me.	seale d of sa	r of the foregoing instrument aid Company and his free ac	t, and acknowledged the t and deed as such

(Notarial Seal)

Notary Public My Commission Expires _____

Page 2 of 3

STATE OF CONNECTICUT)	66	20
COUNTY OF FAIRFIELD)		20
Personally appeared, foregoing instrument, and ackno before me.	owledge	ed the same to be his or h	_, signer and sealer of the er free act and deed
(Notarial Seal)		Notary Public My Commission Expires	S
(Corporate Acknowledgement)			
STATE OF CONNECTICUT)	cc	20
COUNTY OF FAIRFIELD)		
Personally appeared, foregoing instrument, and ackno said corporation and his or her	owledge free act	ed the same to be his or h and deed as such officer	_, signer and sealer of the er free act and deed of thereof, before me.

(Notarial Seal)

Notary Public My Commission Expires _____

ADDENDUM II

HIGH SERVICE AGREEMENT

THIS AGREEMENT ("Agreement") made this	day of	, 20, by and	
between,I	ocated at,	acting herein	
by, hereunto duly author	ized (the "Applicant"), a	and owner of a certain	
parcel of land situated in the Town of	, County of	_ and State of	
Connecticut and described as follows (the "Premises"):			

DESCRIPTION:

and AQUARION WATER COMPANY OF CONNECTICUT, a corporation specially chartered by the General Assembly of the State of Connecticut, and located in the City of Bridgeport, in the County of Fairfield, in said State (the "Company").

WHEREAS, Applicant has applied to the Company for water service and has entered into an agreement with Company to furnish water service to the Premises, and

WHEREAS, Applicant has been advised by the Company and acknowledges that the Premises are at such an elevation that water service provided to the Premises by the Company will be at a water pressure which may exceed 125 PSI, and that such pressure may cause damage to and may result in rupture of the external service line and internal plumbing fixtures and equipment at the Premises, and that such rupture may result in flooding and general water damage at the Premises, and

WHEREAS, Applicant agrees to file and record a copy of this fully executed Agreement in the Office of the City or Town Clerk to be attached to the property deed.

NOW, THEREFORE, Applicant, for itself and for its heirs, successors, and assigns, hereby agrees (i) to accept water service from the Company furnished under such water pressure as may be made available at the Premises, (ii) to furnish, install, operate and maintain Applicant's own PRESSURE REDUCING SYSTEM, to be located between the curb valve for the Premises and Company's water meter, (iii) to accept full responsibility for taking such action as may be necessary to decrease water pressure at the Premises to a safe operating pressure, and (iv) to release the Company from any liability which may hereafter result from the provision by the Company of water service to the Premises at water pressures which may be in excess of 125 PSI.

IT IS UNDERSTOOD that service under this agreement is subject to and governed by the prevailing rules, regulations, and rates of the Company.

In the presence of: AQUARION WATER COMPANY OF CONNECTICUT WITNESS: <u>By</u> GEORGE S. LOGAN **DIRECTOR – ENGINEERING & PLANNING** APPLICANT: WITNESS: By STATE OF CONNECTICUT) ss. Bridgeport 20) COUNTY OF FAIRFIELD) Personally appeared, GEORGE S. LOGAN, DIRECTOR - ENGINEERING & PLANNING, AQUARION WATER COMPANY OF CONNECTICUT, signer and sealer of the foregoing instrument, and acknowledged the same to be the free act and deed of said Company and his free act and deed as such officer thereof, before me.

(Notarial Seal)

Notary Public My Commission Expires: _____

Page 2 of 3

STATE OF CONNECTICUT)	SS.	20	
COUNTY OF FAIRFIELD		_	
Personally appeared, foregoing instrument, and acknowledge before me.	d the same to be his or her	signer and sealer of the free act and deed	
(Notarial Seal)	Notary Public My Commission Expires		
(Corporate Acknowledgement)			
STATE OF CONNECTICUT)	ss.	20	
COUNTY OF FAIRFIELD			
Personally appeared, foregoing instrument, and acknowledge said corporation and his or her free act	d the same to be his or her and deed as such officer th	signer and sealer of the free act and deed of ereof, before me.	

(Notarial Seal)

Notary Public My Commission Expires _____

Page 3 of 3

ADDENDUM III

Deposit Contract

AQUARION WATER COMPANY OF CONNECTICUT DEPOSIT CONTRACT FOR WATER MAIN EXTENSION

THIS AGREEMENT ("Agreement") made this ______ day of ______, 20__, by and between AQUARION WATER COMPANY OF CONNECTICUT, a corporation specially chartered by the General Assembly of the State of Connecticut, and located in the City of Bridgeport, in the County of Fairfield, in said State (the "Company"), and ______, located at ______, acting herein by , hereunto duly authorized (the "Depositor).

WHEREAS, the Depositor desires and has applied for an extension of the water mains of the Company hereinafter described, and represents that he is the sole owner of record of the property to be served by such extension; and

WHEREAS, the Depositor represents that he has complied with all conditions and requirements of the Company's Rules and Regulations hereinafter referred to with respect to the extension applied for and with respect to this Agreement; and

WHEREAS, relying upon the representation of the Depositor as above set forth and otherwise, the COMPANY estimates the number of near future takers on said extension as _____; and

WHEREAS, the Company is willing to make such extension subject to all of the terms and conditions set forth in the Rules and Regulations for the Extension of Water Mains adopted by the Company on November 1, 1969, as amended (the "Rules and Regulations"), on file in the office of the Public Utilities Regulatory Authority of the State of Connecticut, a copy of which is annexed hereto as Schedule A, applicable provisions of which Rules and Regulations are made a part of this Agreement, reference thereto being had;, provided, however, that to the extent that the provisions of this Agreement are inconsistent with the Rules and Regulations, the provisions of this Agreement shall prevail.

NOW THEREFORE, the Company and the Depositor hereby agree as follows:

1. The Depositor hereby deposits with the Company the sum of 00/100 DOLLARS (\$_____00), receipt whereof is hereby acknowledged, which amount is the COST of the extension as defined and provided for in the Rules and Regulations and is subject to adjustment as and when therein- provided, and agrees to be bound in respect thereto by the applicable provisions of the Rules and Regulations.

2. In consideration of said Deposit and of this Agreement, the Company agrees to install and maintain water mains located and described as nearly as such location and description can be presently ascertained from data furnished by the Depositor, as follows:

Extension # STREET: TOWN/CITY: DESCRIPTION:

The Company further agrees to make such adjustments, re-allocations and refunds to the Depositor from said deposit, at such times and in such amounts as are provided for by said Rules and Regulations. The duration of this Agreement shall be as provided for in said Rules and Regulations.

3. The Depositor shall execute, acknowledge and deliver to the Company all such other documents, instruments and agreements which the Company may reasonably require from time to time in connection with the construction, installation, operation and maintenance of the extension.

4. The Depositor must provide when necessary, free of cost to the Company, a right of way or easement satisfactory to the Company, allowing it to install, maintain, extend and replace mains and other necessary facilities and make connections thereto. In addition, if applicable, all roads and access easements will be made suitable by the Depositor for the passage of heavy equipment and vehicles and for the construction and installation of the extension.

5. This Agreement shall be binding upon the respective parties, their heirs, representatives, successors and assigns, but neither the sale or transfer of his property by the Depositor, nor any assignment hereunder shall relieve the Depositor of his obligations under this Agreement, unless written consent of the Company is first obtained.

6. Any notice given hereunder shall be deemed sufficient if in writing and sent by registered mail to the Company at 600 Lindley Street, Bridgeport, CT 06610-5243 and to the Depositor at [_____].

7. Any address or name change made by the Depositor must be furnished to the Company in writing. The Company's inability to deliver refunds pursuant to the Rules and Regulations to the Depositor because of a changed address shall postpone all future refunds until an address change is received from the Depositor.

8. In the event any dispute arises under this Agreement, the parties shall attempt in good faith to resolve the dispute, and shall have the right to seek any remedies available to them at law or in equity.

9. Special Conditions: [INSERT, IF APPLICABLE]

10. This Agreement shall be governed by and construed under the laws of the State of Connecticut.

WITNESS:	AQUARION WATER COMPANY OF CONNECTICUT		
	By GEORGE S. LOGAN DIRECTOR – ENGINEERING & PLANNING		
 WITNESS:	DEPOSITOR		
	By		
	-		
STATE OF CONNECTICUT)	ss Bridgeport 20		
COUNTY OF FAIRFIELD)	ss. blidgepolit 20		
Personally appeared, GEORGE AQUARION WATER COMPAN	E S. LOGAN, DIRECTOR – ENGINEERING & PLANNING, Y OF CONNECTICUT, signer and sealer of the foregoing		

instrument, and acknowledged the same to be the free act and deed of said Company and his free act and deed as such officer thereof, before me.

Notary Public

STATE OF CONNECTICUT)) ss. Bridgeport 20___

COUNTY OF FAIRFIELD)

Personally appeared signer and sealer of the foregoing instrument, and acknowledged the same to be the free act and deed of said corporation and his free act and deed as such officer thereof, before me.

Notary Public

ADDENDUM IV

AQUARION WATER COMPANY OF CONNECTICUT CONTRIBUTORY CONTRACT FOR WATER MAIN EXTENSION

AGREEMENT, made this ______day of ______, 20___, by and between the AQUARION WATER COMPANY OF CONNECTICUT, a corporation specially chartered by the General Assembly of the State of Connecticut, and located in the City of Bridgeport, in the County of Fairfield, in said State, hereinafter referred to as the Company, and ______ hereinafter referred to as the Applicant acting herein by ______.

WITNESSETH: The Applicant agrees to pay Aquarion Water Company to install approximately _____ linear feet of _____ inch diameter water main in, per AQUARION WATER COMPANY of CONNECTICUT's specifications, in consideration of the contribution of \$_____, by the Applicant, which sum consists of the following:

Item	Description:	Estimated	
		Cost	
1	By payment, for the Company providing inspection, flushing, sampling, \$		
	pressure testing and engineering-(see attached detail estimate).		
2	By payment, for the Company to provide materials including linear feet	\$	
	of _ inch water main and necessary valves, tees, plugs, gate, boxes and		
	appurtenances (included attached initial materials list and item 4a or 4b).	<u></u>	
3	By payment, for the Company to provide materials and installation for	φ	
	service connections.	<u>ф</u>	
4a	By payment for the Company to provide all labor, superintendence, tools,	\$	
	equipment and materials necessary for properly performing and completing	:	
	the work as directed by the Company (also see attached detail job estimate		
	sneet) including, but not limited to:		
	- Installation of feet of inch water main (including excavation, main		
	Installation, and Dackill)		
	- Installation of service connections (including excavation, tapping,		
	Installation of necessary values tees plugs gate boxes and		
	- Installation of necessary valves, tees, plugs, gate, boxes and		
	Installation of fire hydrants		
	- Permite		
	- Permits		
	- Plating		
	- Removal and disposal of unsuitable material		
	- Removal and disposal of ledge and boulders		
	- Suitable backfill material		
	- Disinfection		
	- Dewatering		
	- Blasting		
	- Cleaning up site		
	 Grading and seeding of disturbed area 		
	- Bracing of utility poles		
	 Connections to existing AQUARION mains (including wet taps) 		
	- All temporary paving		
	 Conservation Requirements 		
	Page	911	

4b	Developer's contractor shall perform water main installation per Aquarion	\$
	specifications (Aquarion Water Company Miscellaneous Waterworks	
	Installation Sections F, G, and T) and as described in item 4a, with the	
	exception of Item 1 and Item 2 above.	
	Total	\$

The Company and the Applicant agree that the Applicant is to install the above described water main and appurtenances or pay the full cost to perform all the work described in Items 1, 2, 3 and 4a to the Company in advance of the start of any field work.

Two checks shall be provided by the Applicant to the Company. One "Check" shall be provided by the Applicant naming AQUARION WATER COMPANY OF CONNECTICUT the payee for the sum of \$______ which sum equals 10% of Item 4a. The funds will be released upon successful completion of the work to the Satisfaction of the Company. A second "Check" shall be provided by the Applicant naming AQUARION WATER COMPANY OF CONNECTICUT the payee for the sum of \$______ for Items 1, 2 and 3. Items 1, 2 and 3 will be adjusted to actual cost upon successful completion of the work to the satisfaction of the Company.

If within 10 years of installing the main extension, a party other than the APPLICANT makes a service connection to the main that the APPLICANT has paid for, the APPLICANT is entitled to an equitable reimbursement payment from that party. Under this Agreement, the payment is equal to one half of the unit cost of the pipeline installation multiplied by the party's property frontage. (Please note: unit cost of pipeline installation is equal to the total pipe installation cost divided by the total pipe installation linear footage.)

The Company and Applicant agree that they shall be bound by the Terms and Conditions Governing Extension of Water Mains Installed Under Contributory Plan, as accepted for filing by the Public Utilities Regulatory Authority, Division of Business Regulation of the State of Connecticut.

This Agreement shall be binding upon the respective parties, their heirs, representatives, successors and assigns.

In the presence of: CONNECTICUT AQUARION WATER COMPANY OF

By ____

GEORGE S. LOGAN DIRECTOR – ENGINEERING & PLANNING

Ву ____

AUTHORIZED CONTACT

AQUARION WATER COMPANY OF CONNECTICUT TERMS AND CONDITIONS GOVERNING EXTENSION OF WATER MAINS INSTALLED UNDER CONTRIBUTORY PLAN

- 1. Installation of new water mains in the systems of the AQUARION WATER COMPANY OF CONNECTICUT (hereinafter referred to as the Company) shall be made after execution of a contract, prepared by the Company, between the Company and the person, company or corporation requesting such installation (hereinafter referred to as the Applicant).
- 2. Installation of new water mains as above (hereinafter referred to as Extension(s)) will be made only (1) on streets accepted and maintained by the Town where the proposed Extension will be installed, (2) in streets which have been constructed to line and grade conforming to plans, profiles and specifications accepted by and properly recorded with the TOWN, and for which a proper bond has been posed to insure the satisfactory completion of said streets and their ultimate acceptance by the TOWN.
- 3. The Applicant and a duly qualified engineer and/or land surveyor shall, prior to the commencement of work on any extension, certify to the Company in writing, on forms prepared by the Company, that streets have been properly laid out and graded in compliance with paragraph 2. The Applicant shall erect and maintain stakes to indicate correct street and utility easement lines and grade to insure proper installation of the water mains, all without expense to the Company.
- 4. A valid and proper easement of way and use in, over and upon private property shall be granted to and filed with the Company by the Applicant and recorded in the Office of the City or Town Clerk for the purpose of installing, maintaining, extending, connecting and replacing water mains and appurtenances and making connections thereto, together with three (3) copies of a map of the property to be served, all without expense to the Company.
- 5. It is understood and agreed that the ownership of and title to all water mains installed in Extensions pursuant to executed contracts shall be and remain at all times vested in the Company.
- 6. The Extensions shall at all times remain under the sole control and jurisdiction of the Company. The owner of any land abutting upon the street in which said extension is made shall have the privilege of making connection with the water main for the purpose of taking water therefrom, and all takers of water therefrom shall be subject to the rates, rules, regulations terms and conditions of service of he Company as they may from time to time exist. The Company may extend and/or connect the water mains laid in the extension with the mains in any other portion of its distribution systems, and may convey water through said mains to or from said distribution systems and may connect any additional customers or appurtenances thereto without the consent of the Applicant or takers of water connected to the extension.
- 7. The determination of the required length and internal pipe diameter of any Extension shall in all cases be made by the Company.
- 8. For extensions to property located at such an elevation that, in the opinion of the Company adequate pressure cannot be furnished at all times, the Company will require the Applicant to install at his/her own expense pumping equipment, subject to the approval of the Company, to insure such adequate pressure. The Company will require the Applicant to agree on this provision upon execution of the contract which may be recorded, at the option of the Company, in the land records of the TOWN. Determination of the foregoing method procedure shall rest with the Company.
- 9. The cost of such fire hydrant installations as may be required of the Applicant by the Town Page 42 March 22, 2013

may or may not be included in this Agreement. Every effort will be made to coordinate the installation of such hydrants as may be ordered with the installation of the Extension. The Applicant will be responsible for material costs related to hydrant installations and shall be responsible for the installation cost of the hydrants.

- 10. Extensions will not be scheduled for construction until all conditions and contractual obligations herein set forth have been complied with by the Applicant. Said scheduling shall be in an orderly fashion, and in the reasonable discretion and judgment of the Company.
- 11. Applications for Extensions will be automatically canceled sixty days after date of the application if within this period all conditions required for acceptance of such applications have not been met or fulfilled, and any renewal thereof shall be subject to the rates, rules, regulations, terms and conditions for extensions in effect at date of renewal.
- 12. When Extensions are made in unfinished streets or in rights-of-way, the Applicant shall be fully responsible for damages to the water mains and to all fixtures and appurtenances such as hydrants, gate boxes, curb boxes, blow-offs, etc., located therein. If, after the water mains are installed, the grade of the street or right-of-way is changed reducing or increasing the covering of the mains, fixtures and appurtenances from the Company's requirements for depth of mains, fixtures and appurtenances, then the Applicant shall pay for the cost of lowering or raising the mains to depth required by the Company. This responsibility shall remain in force until such time as the street is officially accepted by the Town.
- 13. The Applicant shall pay all cost of the Extension necessary to meet the Applicant's requirements, but in no event shall the main be smaller than six (6) inches in diameter. If the Company elects to install water mains larger than otherwise required, the Company will assume the additional cost.
- 14. Upon completion of the construction including all restorations, the Company shall compute the actual cost of all work within the scope of this Agreement included but not limited to flushing, sampling, inspection, etc. If the cost is greater than the deposit received by the company, the Applicant shall pay the difference; if the actual cost is less, the Applicant will be refunded the difference.
- 15. The cost of all new service connections from water main to curb stop has not been assessed to the Applicant. Those lots, parcels or pieces of land for which service connection assessment is made shall be those under ownership of the Applicant which can, under the rules and regulations of the Company, be connected to water mains of this extension or to other water mains owned by the Company. The cost assessed for each service connection shall include the cost of the corporation stop or tap, pipe and/or tubing from main to curb stop, the curb stop itself, and all labor, tools and equipment necessary to install said service connection from main to curb stop. The cost assessed does not include the cost of excavation, backfill, and removal and replacement of pavement, curbing, lawns and/or other improvements to be incurred during installation of service connections from main to curb stop, as these expenses shall, under Public Utilities Commission Rules and Regulations, be done by the Applicant. The cost of the curb box and all other expenses incurred during extension of the service connection from curb stop to the meter locations and beyond shall at all times be borne by the owner of the property.
- 16. The Applicant, upon execution of a Contributory Plan Contract wherein the cost of the extension is paid by the Applicant to the Company, shall deposit with the Company a sum equal to the estimated cost of the Extension. Upon installation of a meter at each of the proposed homes, the Applicant will be given a refund in accordance with the provisions of Section 16-11-61 of the Connecticut Public Utilities Docket Number 10300. The refund per home is \$_____.

AQUARION WATER COMPANY OF CONNECTICUT CONSTRUCTION CONTRACT AND AGREEMENT

(Note: The sub-headings are for convenience of reference only and do not form a part of the Contract and Specifications.)

THIS AGREEMENT, made this _____ day of _____ in the year 20___ between the AQUARION WATER COMPANY OF CONNECTICUT, a corporation of the State of Connecticut, hereinafter called the Company, a party of the first part, and ______, a Connecticut business entity with a business address of ______, hereinafter called the "Contractor" or" party of the second part":

COVENANT

WITNESSETH: That the parties to these presents each in consideration of the undertakings, promises and Agreements on the part of the other herein contained, have undertaken, promised and agreed, and do hereby undertake, promise and agree, the party of the first part of itself, its successors and assigns, and the party of the second part for themselves and their heir, executors, administrators, successors and assigns as follows:

CONTRACT INCLUDES

The Contractor shall at his own sole cost and expense furnish all labor, materials and other services necessary for the completion of this contract and will complete and finish the same in the most thorough, workmanlike and substantial manner, in every respect to the commercially reasonable satisfaction and approval of the Company, in the manner and within the time hereinafter limited, and in strict accordance with the following items which are hereby made a part of this contract as fully as if the same were repeated at length herein:

- Information for Contractors
- <u>General Conditions</u> from AQUARION WATER COMPANY OF CONNECTICUT's Contract for Miscellaneous Water Works Installations, Section F
- <u>General Specifications</u> AQUARION WATER COMPANY OF CONNECTICUT's Contract for Miscellaneous Water Works Installations, Section G
- <u>Technical Specifications</u> AQUARION WATER COMPANY OF CONNECTICUT's Contract for Miscellaneous Water Works Installations, Section T

DEFINITIONS

The word "<u>Company</u>" or "<u>Party of the First Part</u>" as used herein shall mean the AQUARION WATER COMPANY OF CONNECTICUT acting through its properly authorized representatives.

The word "<u>Contractor</u>" shall mean the party of the second part of this Contract, or its duly authorized agents, including without limitation_____.

The words "<u>as directed</u>," "<u>as required</u>," "<u>as permitted</u>," "<u>as allowed</u>," or phrases of like effect or import as used herein shall mean that the direction, requirement, permission or allowance of the Company is intended, and similarly the words "<u>approved</u>," "<u>reasonable</u>," "<u>suitable</u>," "<u>properly</u>," "<u>satisfactory</u>", or words of like effect or import, unless otherwise particularly specified herein, shall mean approved, reasonable, suitable, proper or satisfactory in the reasonable judgment of the Company.

COMPANY'S DECISION

All work under this contract shall be done to the reasonable satisfaction of the Company who shall determine the amount, quality, acceptability and fitness of the several items of work and materials which are to be paid for hereunder. It shall also decide all questions which may arise as to the

fulfillment of the terms of the contract by the Contractor and as to the intent and purpose of the contract plans and specifications. The determination of the Company in all such matters shall be final and binding upon the parties thereto.

SEQUENCE OR ORDER OF WORK

The sequence of the work shall be in accordance with the directions and order of the Company.

INSPECTION

It is agreed that the Company may, appoint and employ at the CONTRACTORS expense such persons as may be necessary, who are to act as inspectors, or agents, for the purpose of inspecting, in said first party's interest, the materials furnished and the work done as the work progresses. Such persons shall have restricted access to all parts of the work and to other places at and in which the preparation of the materials and other parts of the work to be done under this contract are carried on and conducted and shall be given by the Contractor all facilities and assistance required to carry out their work of inspection.

The Inspector shall have authority to reject and shall reject any work or material, or any part thereof, which does not, in his reasonable opinion, conform to the plans, drawings, specifications and contract, and it shall be permissible for him to do so at any time during the progress of the work and until its acceptance.

Such inspection shall not relieve the Contractor from any obligation to perform said work strictly in accordance with the plans and/or specifications and work not so constructed in such a manner shall be removed and made good by the Contractor at his own expense, and free of all expense to the Company whenever so ordered by the Company without reference to any previous oversight or error in inspection.

OBLIGATION OF CONTRACTOR

The Contractor shall, at his own cost and expense, provide any and all manner of superintendence, insurance, taxes, labor, materials, apparatus, scaffolding, appliances, tools, machinery, power, transportation and whatever else may be required of every description necessary to do an complete the work, and shall be solely answerable for the same and for the safe, proper and lawful construction, maintenance and use thereof. The Contractor shall provide experienced superintendents and foremen on each part of the work and experienced persons. The Contractor acknowledges they will satisfy this criteria.

The Contractor shall, at his own expense, wherever necessary or required, maintain fences, provide watchmen, maintain lights, place additional timber and braces, and take such other precautions as may

be necessary to protect life, property and structures and shall be liable for all damages occasioned in any way by its act or neglect, or that of his agents, employees or workmen.

DEFENSE OF SUITS

In case an action at law or suit in equity may or shall be brought against the Company or any of its representatives or agents for or on account of the failure, omission or neglect of the Contractor or its sub-contractors or its employees or agents to do and perform any of the covenants, acts, matters or things by this contact undertaken or to be done or performed by the Contractor or its sub-contractors, or employees or agents or for any injury or damage caused by the negligence or alleged negligence of the Contractor or its sub-contractors, or its employees or agents, the Contractor shall indemnify and save harmless the Company and its representatives, agents and servants of and from all loss, cost, damage, expense, judgment or decrees whatever arising to of such actions or suits as may or shall be brought as aforesaid, provided, however, the Contractor shall not indemnify the Company for Company's negligence.

PERMITS, LAWS AND ORDINANCES

The Contractor shall keep itself fully informed of all existing and current ordinances and regulations and Town, County, State or Federal Laws in any way limiting or controlling the actions or operations of those engaged upon the work or affecting the materials supplied to or by it. The Contractor shall at all times observe and comply with all such valid and legally binding ordinances, law and regulations and shall protect and indemnify the Company, its representatives and against any claim or liability arising from or based on any violation of the same. The Contractor shall take out and carry appropriate employer's liability insurance and public liability insurance. It shall obtain and pay for all necessary permits and pay all fees required in connection with the contract.

ASSIGNMENT OF CONTRACT

The Contractor shall have no right or power to assign this contract, in whole or in part, nor to assign any right arising or monies due or to grow due thereunder, without formal approval of the Company.

SUBLETTING

The parties acknowledge that	shall be the General Contractor
employed to do the work hereunder on behalf of _	

COMPLETION OF WORK BY COMPANY

If the work to be done under this contract shall be abandoned by the Contractor, or if this contract shall be assigned, otherwise than as herein specified, or if at any time the Company shall be of the opinion that the performance of the contract is unnecessarily or unreasonably delayed, or that the Contractor is willfully violating any of the conditions or covenants of this contract, or of the specifications, or is executing the same in bad faith or not in accordance with the terms thereof; or if the work be not fully completed within the time named in this contract for its completion, or within the time to which the completion of the contract may be extended by the Company, the Company may notify the Contractor to discontinue all work, or any part thereof under this contract, by written notice to be served upon the Contractor, as herein provided; and the Contractor shall within five (5) days of the service of said written notice, discontinue the work, or such part thereof, and the Company shall thereupon have the power to contract for the completion of the contract in the manner prescribed by law, or to place such and so many persons it may deem advisable, by contract or otherwise to work, and complete the work herein described, or such part thereof; materials and equipment for the completion of the same, and to charge the expense of said labor and materials to the Contractor. The expense so charged shall be deducted and paid by the Contractor under and by virtue of this contract, or any part thereof. And in case such expense shall exceed the amount which would have been payable under the contract if the same had been completed by the Contractor, the Contractor his surety shall pay the amount of such excess to the Company; and in case such expense shall be less than the amount which would have been payable under this contract if the same had been completed by the Contractor, the Company shall pay such difference to the Contractor.

CLAIMS FOR LABOR AND MATERIALS

The Contractor shall indemnify and save harmless the Company from all claims for labor done and for materials furnished under this contract or any alterations or modifications thereof, and shall furnish the Company with satisfactory evidence, when called for by it, that all persons who have done work, or furnished materials under this contract, for which the Company may become liable under the Laws of the State of Connecticut, have been fully paid or satisfactorily secured, and in case such evidence is not furnished, an amount necessary or sufficient within the discretion of the
Company to meet the claims for the persons aforesaid shall be retained, in addition to any other monies that are to be retained, as herein specified, from the money due the Contractor under this contract, until the liabilities aforesaid shall be fully discharged or satisfactorily secured.

MODIFICATIONS

There will be no modifications to this contract unless agreed upon in writing by both interested parties.

EXTRA WORK

The Contractor shall and will do any work and furnish any materials not herein provide which may be found reasonably necessary or advisable for the proper completion of the work or the purposes thereof, or any modification or reasonable alterations. All extra work and materials shall be ordered in writing by the Company, and in no case will any work or materials be paid for unless so ordered.

PAYMENT

The Company in consideration of the faithful performance by the Contractor of all his covenants, promises and Agreements contained herein, agrees to pay the Contractor for the full completion by him of the work embraced in this contract in the manner and within the time herein specified and limited and to the satisfaction and approval of the Company, the prices stipulated in the Proposal.

FINAL ESTIMATES

The Company shall, after the completion of the project, make a final certificate of the entire amount of work done under said project. Any overage on inspection, flushing and filling of mains will be paid by developer. If amount is less than original estimate, developer will be refunded.

LIABILITY OF CONTRACTOR FOR EMPLOYEES

Each and every employee of the Contractor, and each and every of his sub-contractors engage in the said work shall, for all purposes, be deemed and taken to be the exclusive servants of the Contractor and not for any purpose or in any manner in the employment of the Company. The Contractor shall in no manner be relieved from responsibility or liability on account of any fault or delay in the execution of the said work, or any part thereof, by any such employee or any sub-contractor, or any material men, whatsoever.

NO WAIVER OF RIGHTS

No certificate given or payment made under this contract, except the final certificate or final payment, shall be evidence of the performance of the contract either wholly or in part, and no payment shall be constructed to be an acceptance of defective work or improper materials. No act of the Company or of any representative of it in supervising the work, nor any extension of time for the completion of the work, shall be regarded or taken as an acceptance of such work or any part thereof, or of materials used therein or therefore, either wholly or in part; but such acceptance shall be evidenced only by the final certificate of the Company(acceptance of final payment shall be deemed acceptance of the Company in accordance with this Agreement). Before any final certificate shall be allowed, he Contractor will be required, and he hereby agrees, to sign and attest on said certificate a statement that he accepts the same in full payment and settlement of all claims on account for work done and materials furnished under this contract, and furthermore that all claims for materials provided or labor performed have been paid and satisfied in full. No waiver of any breach of this contract by the Company or anyone acting for it or on its behalf shall be held as a waiver of any other or subsequent breach thereof.

VERBAL STATEMENTS NOT BINDING

It is understood and agreed that the written terms and provisions of this Agreement shall supersede all prior verbal statements of the representatives of the Company, and such statements shall not be effective or be construed as entering into or forming a part of, or altering in anyway whatsoever the Agreement.

RELEASE OF LIABILITY

No person or corporation other than the signer of this contract as Contractor, now has any interest hereunder, and no claim shall be made or be valid, and neither the Company or any employee or agent thereof, shall be liable or be held to pay any money, except as hereinbefore provide. The acceptance by the Company of the last payment shall operate as and shall be a release to the Contractor and every representative and agent thereof, from all claims and liability against the Contractor for anything done or furnished for, or relating to the work, or for any act or neglect of the Contractor or any person relating to or affecting the work.

EXECUTION OF CONTRACT

IN WITNESS THEREOF, the said parties hereto have caused this instrument to be executed by their respective duly constituted officers, attested and sealed pursuant to proper resolutions.

Signed and sealed in the presence of:	AQUARION WATER COMPANY OF CONNECTICUT
	By GEORGE S. LOGAN DIRECTORENGINEERING & PLANNING
Signed and sealed in	the presence of:
	Ву
	NAME: TITLE:

INFORMATION FOR CONTRACTORS

SCOPE OF WORK

The work considered under this contact consists of the installation of the below listed items.

ITEM DESCRIPTION and QUANTITY

Install approximately _____ linear feet of _____ ductile iron water main and all valves and appurtenances.

The above listed quantities constitute an estimate of the work to be performed during the Contract and are not to be considered as accurate.

The Contractor shall also provide all labor, superintendence, tools, equipment and materials necessary for properly performing and completing the work as directed by the Company including:

- Installation of water main (including excavation, main installation, and backfill)
- Installation of service connections (including excavation, tapping, service line installation, and backfill)
- Installation of necessary valves, tees, plugs, gate, boxes and appurtenances
- Installation of fire hydrants
- Traffic Control
- Permits
- Barricades
- Plating
- Removal and disposal of unsuitable material
- Removal and disposal of ledge and boulders
- Suitable backfill material
- Dewatering
- Disinfection
- Blasting
- Cleaning up site
- Grading and seeding of disturbed area
- Bracing of utility poles
- Connections to existing AQUARION WATER COMPANY mains (including wet taps)
- All temporary and permanent paving

All of the above materials will conform to the specifications of the AQUARION WATER COMPANY OF CONNECTICUT. There will be no deviation.

-SCHEDULE A Rules and Regulations

AQUARION WATER COMPANY OF CONNECTICUT

RULES, REGULATIONS AND RATES GOVERNING THE EXTENSION OF WATER MAINS Effective Nov. 1, 1969 (Modified February 8, 1991)

Deposit Contract for Real Estate Developments and Sub-Divisions

DEFINITIONS

Definitions and terms as hereinafter used shall be as outlined under the current Rules, Regulations and Rates of Aquarion Water Company of Connecticut, and in addition the following terms and definitions shall apply.

EXTENSION is the term used to designate the lineal footage of pipe required in order to serve property(ies) according to conditions and regulations as herein outlined.

APPLICANT shall mean the party entering into a contract with the Company for an EXTENSION.

TAKER shall mean any party who connects to and who will receive water service through a metered service connection from the original existing EXTENSION on which a DEPOSIT CONTRACT as hereinafter outlined is in effect.

ESTABLISHED CUSTOMER shall mean any TAKER who is an occupant and/or owner of record of premises equivalent to not less than one single-family dwelling. Qualification as an ESTABLISHED CUSTOMER shall in all cases be subject to the final determination of the Company.

PROSPECTIVE CUSTOMER shall mean any owner of record of premises equivalent to not less than one single-family dwelling abutting on that part of a street in which there exists or is to be installed a water main of the Company, who is occupying or will occupy said premises and who, in the sole opinion of the Company, will qualify as an ESTABLISHED CUSTOMER.

DEPOSITOR shall mean any party to a DEPOSIT CONTRACT.

GENERAL RULES

1. Applications for extensions will be accepted only when filed by the owner of public record of the property which the EXTENSION will serve.

2. Applications shall be made at the offices of the Company on forms provided and will not be accepted until all the information as outlined on said forms is supplied.

3. Extensions will be made only on streets that are either (a) accepted and maintained by the town or city or (b) new streets which have been constructed to line and grade conforming to plan and profile as accepted by and recorded with the town or city and for which a bond has been posted with the city or town by the owner of record to insure satisfactory completion of said streets according to specifications of the town or city and ultimate final acceptance of said streets by the town or city; all of which will be subject to written confirmation by the proper municipal authority.

4. The determination of the required length of any EXTENSION shall in all cases be made by the Company, but in general shall be based on the following two principles; (a) the terminal point shall be the point opposite the curb line which is equidistant from the side property lines of the last lot to be served, or (b) a point approximately 5 feet beyond where the customer service line for the last premises to be supplied will intersect the curb line, whichever distance may be greater and taking into account the fact that the customer service line must be laid in a straight line from the point of connection of the main to the premises to be served and at right angles to the curb line.

5. Applications for the extension of water mains will be automatically cancelled sixty (60) days from the date of application, if, within this period, all conditions required for acceptance of such applications as set forth in the rules, regulations and rates governing extension of water mains are not fulfilled.

6. Upon cancellation of an extension application the APPLICANT may renew said application. However, the renewed application will be subject to and governed by the rules, regulations and rates for extension of water mains in effect at the date of renewal.

7. Extensions will not be scheduled for construction until all conditions and contractual obligations herein set forth have been fully complied with by the APPLICANT for said EXTENSION.

8. Extensions will normally be assigned for construction in the order in which all requirements as herein outlined have been met; however, the Company reserves the right to exercise its judgment in the scheduling of construction in order to integrate timing with other projects which may have been approved and are waiting for construction and to take due consideration of weather conditions, availability of materials and immediacy of need.

9. The APPLICANT shall be required to furnish with his application three copies of a map of the property to be supplied which map must be a facsimile copy of one approved and filed with the proper municipal authority.

10. If requested by the Company, the APPLICANT shall further furnish plan and profile of the street in which the main is to be installed as approved by and filed with the town, which plan and profile shall show, in addition to the street grade as approved, existing grade at street center line and each property line, or at such other location as may be designated by

the Company, giving the date at which the profile of said existing grade was made. Only maps, plans, profiles or other drawings prepared and stamped by a licensed engineer or surveyor will be acceptable.

11. Further, if requested by the Company, the APPLICANT shall erect and maintain stakes to indicate correct street lines and grades to facilitate proper installation of the mains.

12. All requests for the installation of public fire hydrants shall be made directly to the municipality and shall be subject to order by the municipality.

13. Title of ownership in an extension shall at all times be and remain vested in the Company.

14. An EXTENSION shall at all times remain under the sole control and jurisdiction of the Company. This includes the right to connect additional customers without the consent of the APPLICANT, make further extensions beyond or running laterally from said EXTENSION or connect said EXTENSION with a portion of the distribution system of the Company, without incurring any obligations to the APPLICANT or TAKERS receiving service from said EXTENSION except as hereinafter provided.

15. Not applicable to DEPOSIT CONTRACT.

16. The number of potential TAKERS to be used in setting up rates and charges under DEPOSIT CONTRACTS as hereinafter outlined shall be based on a conservative estimate of the number of near future TAKERS, which number shall in all cases be determined by the Company.

17. If property to be supplied by an EXTENSION is at such an elevation that, in the opinion of the Company, normally satisfactory minimum average water pressure may not be available for supply by the Company to said premises, the APPLICANTS for such an EXTENSION will be obliged to execute a LIMITED SERVICE AGREEMENT prior to final acceptance by the Company of the application for such EXTENSION.

18. If property to be supplied an EXTENSION is at such an elevation that, in the opinion of the Company, water service will be at a water pressure which may exceed 125 PSI, which may cause damage to and/or result in rupture of the external service line and internal plumbing fixtures and equipment at the property, and that such rupture may result in flooding and general water damage, the APPLICANTS for such an EXTENSION will be obliged to execute a HIGH SERVICE AGREEMENT prior to final acceptance by the Company of the application for such EXTENSION.

19. When water main extensions are made in unfinished streets, the APPLICANT(S) shall be fully responsible for damage to the mains and all such fixtures and appurtenances as hydrants, gate boxes, and blow off boxes, including the relocation thereof, if such damage results from or such relocation is necessitated by acts of the APPLICANT or his agents. This responsibility shall remain in force until such time as the street is officially accepted by the proper town or municipal authority.

DEPOSIT CONTRACT

Extensions for Real Estate Developments or Subdivisions as these terms are generally understood – whether or not planned for partial or total development in the immediate future – will be made under a DEPOSIT CONTRACT. Applicants for such extensions do not qualify as PROSPECTIVE CUSTOMERS as above defined. Provisions of said DEPOSIT CONTRACT shall include the following:

1. COST

- A. COST shall be based on a lump sum estimate from the Company's contractor.
- B. The Company may waive its requirement for the inclusion in COST of the estimated cost of paving in the case of a properly bonded street which is not paved at date when the Company makes its field investigation of the proposed EXTENSION. However, if any such street is found to have been paved at the date when the EXTENSION is assigned for construction, COST shall be adjusted to reflect the Company's estimate of the cost of the required paving.
- C. Where pavement replacement costs are incurred, COST shall be adjusted to reflect actual cost of pavement.
- D. Upon completion of construction, the Company will calculate the actual COST for the EXTENSION. If the actual COST is less than the estimated COST, a refund will be given to the APPLICANT. If the actual COST exceeds the estimated cost, an additional payment will be required.
- E. If for any reason it is necessary to install pipe larger than 8" to satisfy requirements of APPLICANT, COST shall reflect the actual installation COST.
- F. Where, under conditions of paragraph E, if the particular installation will in the judgment of the Company involve unusual construction problems or special provisions such as pumping equipment to satisfy requirements of APPLICANT or any other conditions which would create extraordinary costs of installation, COST shall be based on an estimate of construction cost for the particular EXTENSION as prepared by the Company and shall be adjusted following completion of the work to reflect actual cost of construction.
- 2. The APPLICANT upon execution and delivery of a DEPOSIT CONTRACT shall deposit with the Company a sum equal to the COST of the EXTENSION as above defined:
 - G. The DEPOSITOR shall further deposit with the Company upon demand any additional amount which may result from any adjustment of COST as may be determined in accordance with preceding paragraph 1, and the Company reserves the right to delay installation of the EXTENSION or service taps in the EXTENSION until it has received such additional amount.
 - H. The Company will refund to the DEPOSITOR any amount which may become due him as a result of adjustment of COST as provided for under preceding paragraph 1.
- 4. The Company shall make a STANDARD REFUND to the DEPOSITOR for each ESTABLISHED CUSTOMER connected to said EXTENSION. Such STANDARD

REFUND shall be determined from time to time in accordance with Connecticut Public Utilities Commission Docket 10,300, Section 16-11-61, Appendix A.

- 5. Upon written application to the Company by the DEPOSITOR, the Company may refund to the DEPOSITOR an amount to be determined by the Company based upon the actual annual average water consumption for three consecutive calendar years for an ESTABLISHED CUSTOMER such as an industrial or commercial establishment whose water consumption would warrant a larger refund than the above stipulated standard refund.
- 6. In no event shall the total of all refunds exceed the deposit as above specified.
- 7. All liability for payment of refund shall terminate ten years from the date of execution of the DEPOSIT CONTRACT, and any part of the deposit not refunded within such ten-year period shall be forfeited by the APPLICANT and shall become the property of the Company.
- 8. No interest shall be paid on the deposit or any part thereof.
- 9. A DEPOSIT CONTRACT or any interest therein shall not be assigned without the written consent of the Company.
- 10. All TAKERS connected to extensions installed in accordance with the terms of a DEPOSIT CONTRACT shall be subject to the applicable rates, rules, regulations, terms and conditions of service of the Company. However, when the municipality does not pay the fire service charges for a particular EXTENSION, said charges shall be paid on a pro rata basis by all TAKERS on such EXTENSION in addition to their charges for water.
- 11. Where an extension, made under the terms of a DEPOSIT CONTRACT, will in accordance with the Company's Rules and Regulations, serve property which is owned by a party other than the original DEPOSITOR, the Company may require that said party advance an amount to the Company prior to becoming a taker on such EXTENSION, which, in the judgment of the Company, represents his equitable share of the COST of such EXTENSION. Such amount will in turn be refunded to the original DEPOSITOR.
- 12. The Company reserves the right to require that a DEPOSIT CONTRACT cover all water mains needed to supply a real estate development or subdivision in its entirety, the length of such mains to be determined according to paragraph 4 of the General Rules as herein set forth.

ATTACHMENT D

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INCENTIVE PAYMENT MEMORANDUM



MEMORANDUM

TO: Bud Butler, WPCA Chairman

FROM: Mike Crawford, Derek Albertson

DATE: December 18, 2017

SUBJECT: New Hartford Wastewater Contract Operations Incentive Payment

As outlined in the Wastewater System Operation and Maintenance Services Agreement between the New Hartford Water Pollution Control Authority (WPCA) and Aquarion Water Company (AWC), an Incentive Payment of one third the amount of savings introduced by AWC shall be payable to AWC. The cost savings for any given year are to be compared to the baseline cost for the same expenditures for the 12-month period immediately preceding the effective date of this contract (i.e., September 1, 2015 through August 31, 2016). The cost savings are to be reviewed and agreed upon by the WPCA and AWC. This Memorandum outlines a number of cost savings for the period September 1, 2016 through August 31, 2017 (First Year of Base Contract) and serves as a preliminary synopsis for discussion purposes.

Sludge Disposal Savings. Sludge disposal costs were reduced during the first year of the base contract as a result of proactive gravity thickening on a daily basis, modifications to process control to reduce sludge yield and by dosing the sludge with polymer to obtain a thicker sludge for disposal. As outlined on Table 1, 53 trucks each with approximately 6,500 gallons were sent off-site for disposal at the Veolia Naugatuck facility during 2015-16 while 31 trucks were sent off-site during 2016-17 (i.e., 41 % reduction). Sludge disposal cost is \$0.12 per gallon or roughly \$780 per truck load. During this period two drums of polymer were purchased at a cost of about \$990 per drum. The net cost savings is estimated at \$15,180.

Electrical Cost Savings. Electrical cost savings are attributed to two process modifications: changing the process control of the SBRs based on minimum dissolved oxygen content monitoring (recommendation from Fluidyne who was contracted by AWC without charge to the WPCA) and reducing the number of UV disinfection lamps from 48 to 16 based on implementing the findings of the UV Optimization Study completed by AWC (without charge to WPCA). Table 1 summarizes the month by month kw-hr usage for the baseline and first year of the AWC contract. The estimated kw-hr savings is roughly 30,986 kw-hr (about a 9 % reduction) that represents approximately a \$5,023 cost savings.

Chemical Cost Savings. AWC uses bleach to control filamentous bacteria in the SBRs and reduce odors at the screenings dumpster and trash dumpster. After several months of purchasing roughly 10 gallons of bleach per month, AWC was able to stockpile about 30 gallons of off-spec bleach from another AWC operation, thus eliminating this cost. It does not appear that the previous operator purchased bleach during the baseline period. During 2016-17 it is estimated that about 10 gallons of bleach procured by AWC were used at the WPCF. The estimated unit cost of the bleach is \$2.50 per gallon representing about a \$25 cost savings.

Ultraviolet Light Disinfection Optimization Cost Savings. AWC completed an UV Disinfection Optimization Study during the winter and spring of 2017 in an effort to demonstrate acceptable bacteriological inactivation using fewer UV lamps and to make the case for eliminating the existing

NPDES permit requirement for UV intensity. The findings of the study showed that at reduced flow rates only 16 lamps (instead of 48 lamps used during the baseline period) were required to obtain the necessary inactivation. Further, the report was shared with CTDEEP and the UV intensity requirement was eliminated from the updated NPDES permit. While the majority of the cost savings are associated with the energy reductions already noted, secondary cost reductions will be realized due to the need for fewer lamps, ballast, and instrumentation and control monitoring being required in the future. Although there is secondary cost savings associated with the process modifications implemented, the cost savings are not readily quantifiable and therefore no cost savings are included as part of this incentive payment calculation.

NPDES Permit Renewal Cost Savings. Beginning in February AWC staff prepared the NPDES permit renewal application for the WPCA. The cost for a consultant to prepare such a permit renewal package can range from \$10,000 to \$15,000. AWC personnel prepared this permit renewal as time allowed throughout February, March and April. During this period the WPCA was charged a nominal amount of overtime when staff met with CTDEEP in Hartford and when time was expended beyond normal work hours. The estimated cost charged to the WPCA was \$1,510, thus representing about an \$8,500 cost savings. AWC does not propose to include this cost saving as part of the incentive payment calculation.

Analytical Testing Savings. At the outset of the AWC contract, four commercial laboratories were contacted to obtain quotes for providing analytical services, including the incumbent – Phoenix Laboratory. Table 2 provides a summary of the obtained quotes and compares these costs to the baseline costs in place during 2015-16. The estimated cost savings is \$750 due to a reduced unit cost negotiated for E. coli analysis.

Equalization Tank Cleaning. At the outset of the AWC contract it was observed that significant legacy solids had accumulated in the post SBR Equalization (EQ) tank over the past six years. AWC drained the tank on several occasions and attempted to remove as much solids from the tanks as possible without entering the tank. The results were modest and it was identified that a confined space entry would be required. The lowest quote to complete the tank cleaning were \$7,000. AWC personnel attended and were certified in confined space entry, borrowed health and safety equipment from other AWC operations, and rented the necessary pressure washer and miscellaneous equipment to complete the tank cleaning. The estimated cost for equipment rental and nominal overtime to compete this task was about \$700, thus representing a \$6,300 cost savings. AWC does not propose to include this cost saving as part of the incentive payment calculation.

After you have time to review the above and the attached tables, please let me know if there is a convenient time for us to meet to discuss this preliminary summary. AWC is delighted to partner with the WPCA and we look forward to continuing our relationship with the Town and the WPCA.

WPCF
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Invento
ectricity
s and El
e Trucks
Sludge
Table 1.

	SL	UDGE TRUCI	KS		ELECTRICTY			
		Baseline		kw-hr	kw-hr	Cost	Ave	rage
<u> Month</u>	<u> 2014 - 2015</u>	2015 - 2016	<u> 2016 - 2017</u>	<u> 2015 - 2016</u>	2016 - 2017	2016-17	<u>\$/k</u>	w-hr
september	Ч	4	ы	26,496	22,656	\$ 3,737.22	Ŷ	0.16
October	0	4	7	27,456	26,112	\$ 4,174.51	ŝ	0.16
Vovember	ю	ы	m	31,488	25,152	\$ 4,213.10	ŝ	0.17
December	თ	ъ	сı	35,591	32,448	\$ 5,168.74	ŝ	0.16
anuary	12	4	4	42816	34,560	\$ 5,412.48	Ŷ	0.16
⁼ ebruary	10	4	7	37,824	35,712	\$ 5,591.60	ጭ	0.16
March	10	4	4	32,835	32,832	\$ 5,346.49	ŝ	0.16
April	9	9	4	36,480	34,560	\$ 5,461.29	Ŷ	0.16
Иау	4	4	m	22,848	23,616	\$ 3,800.14	ŝ	0.16
lune	Ω	4	-1	26,304	26,496	\$ 4,344.38	ŝ	0.16
luly	ß	ъ	ल	26,880	24,000	\$ 3,890.35	Ŷ	0.16
August	ъ	4	ч	24,384	22,272	<u>\$</u> 3,844.58	ŝ	0.17
Monthly Avg	5.8	4.4	2.6	30,950	28,368.0	\$ 4,582.07	Ŷ	0.162
lotal Annual	20	53	31	371,402	340,416	\$ 54,984.88		
	Sept 2015 - Au	lgust 2016	53	Sept 2015 - Aug	tust 2016	371,402		
	Sept 2016 - Aı	lgust 2017	31	Sept 2016 - Aug	çust 2017	340,416		
	Truck Reductio	u	22	kw-hr Reductior	c	30 986		
	Cost per Truck		\$780	\$/kw-hr	:	\$ 0.162		
	Cost Reductio	F	\$ 17,160	Cost Reduction		\$ 5,023		
	Number of Dri Cost per Drum	ums Polymer 1	2 \$990					
	Polymer Cost		\$1,980					
	NET SAVINGS		\$ 15,180	NET SAVINGS		\$ 5,023		

TABLE 2. ANALYTICAL COST ANALYSIS SUMMARY - NEW HARTFORD WPCF (AUGUST 2016)

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				PHOENIX LAB	5				AQUA LABS		Tabat		act not	MICRO-BAC		Total		Fi Cost per	(OENIX 8/ Numbe	SEUN	E Total
		د م	iost per <u>maivsis</u>	Number of Sample/Year		<u>Cost</u>	2	ost per Analysis	Number or Sample/Year		Cost	Į	lost per Inalysis	Sample/Year		Cost		Analysis	Sample/	(ear	Cost
Conventio	nal/Non-Conventional Parameters for Dat	<u>.</u>		101		4 000 00		22.00	104		1.020.00	÷	20.00	104		2 080 00	ځ	17.50	104		\$ 1.820.00
	Biochemical Oxygen Demand(S) Total Suspended Solids	\$ \$	17.50	104 104	\$ \$	1,820.00	ş	20,00 10.00	104	ې \$	1,040.00	\$	12,00	104	ş	1,248.00	ŝ	10,00	104		\$ 1,040.00
	Total Nitrogen	Ča	fculated	64	š	-,	G	iculated	64	\$	· -	Ġ	louiated	64	\$	- 1	c	alculated	64		. -
	Ammonia as Nitrogen	\$	18.00	64	\$	1,152.00	\$	17.00	64	\$	1,088.00	\$	15.00	64	\$	960.00	\$	18.00	64		\$ 1,152.00
	Nitrate as Nitrogen	\$	9.00	64	\$	576.00	\$	10.00	64	\$	640.00	\$	10.00	64		640,00	ş	9,00	64		\$ 576.00
	Nitrite as Nitrogen	\$	9.00	64	\$	576.00	\$	10.00	64	\$	640.00	\$	10.00	64	5	640.00	ş	9.00	64		\$ 576.00
	Total Kjeldahi Nitrogen	\$	19,00	64	\$	1,216.00	ş	17.90	64	ş	1,086,00	ş	20.00	64	÷	1,280.00	ş	19.00	24		\$ 240.00
	Ortho-Phosphate	ş	10.00	24	ş	240,00	ş	10.00	24	ş	240.00	ې د	15.00	24		360.00	ŝ	14.00	24		\$ 335.00
	Total Phosphorus	ş	14,00	24	ş	335.00	e e	10.00	24	2 4	240.00	š	12.00	24	š	288.00	š	10.00	24		\$ 240.00
	Auxalinity 5 Coll	्र	15.00	30	ś	450.00	š	20.00	30	š	1,040.00	Ś	15,00	30	ŝ	780,00	\$	40,00	30		\$ 1,200.00
	Dissolved Oxygen	*	NA	NA	*		•	NA	NA	•	-	-	NA	NA		-		NA	NA		-
	pH		NA	NA		-		₩A	NA		-		NA	NA		-		NA	NA		-
	Settleable Solids		NA	NA		÷		NA	NA		-		NA	NA		-		NA	NA		-
	Temperature		NA	NA		-		NA	NA		-		NA	NA		•		NA	NA MA		-
	Turbidity		NA	NA		-		NA	NA				NA	NA NA		-		NA	NA		-
	UV latensity Subtotal Wet Chemistry		NA	NA	\$	7,646,00		NA	(VA	\$	8,456.00		114	45	\$	8,564.00		101			\$ 8,396.00
	,					-															
<u>Acute Aq</u>	atle Toxicity Testing																				
<u>Metals</u>			0.00	,	~	21.00	ė	7.00		ć	78.00	¢	700	4	ŝ	28.00	Ś	8.00	4	2	\$ 32.00
	Total Astimony	ç	8.00	4	ې د	32.00	è	7.00	4	ŝ	28.00	ś	7.00	4	Ś	28.00	ŝ	8,00	4	1	\$ 32,00
	Total Anumony Total Arsenic	ŝ	8.00	4	ś	32,00	ŝ	7.00	4	ŝ	28,00	\$	7.00	4	\$	28.00	\$	8.00	4	;	\$ 32.00
	Total Bervillum	ŝ	8.00	4	ŝ	32.00	ŝ	7.00	4	\$	28.00	\$	7.00	4	\$	28.00	\$	B.00	4	:	\$ 32.00
	Total Cadmium	ŝ	8,00	4	\$	32,00	\$	7.00	4	\$	28.00	\$	7.00	4	\$	28,00	\$	8,00	4	1	\$ 32,00
	Hexavalent Chromium	\$	25,00	4	\$	100.00	\$	10,00	4	\$	40,00	\$	20.00	4	\$	80.00	\$	25.00	4	:	\$ 100.00
	Total Chromium	\$	8.00	4	\$	32.00	\$	7.00	4	\$	28.00	Ş	7.00	4	ş	28.00	ş	8,00	4		\$ 32.00
	Total Copper	\$	8.00	4	ş	32.00	ş	7.00	4	ş	28.00	ş	7.00	4	2 6	80.00	è	20.00	4		\$ 80.00
	Total Cyanide	ş	20.00	4	ş	80.00	ې خ	20,00	4	ş	80.00	ŝ	25.00	4	š	100.00	š	23.00	4	;	\$ 92.00
	Amenable Cyanice	ŝ	23.00	4	ś	32.00	š	7.00	4	š	28.00	Ş	7,00	4	\$	28,00	\$	8,00	4	;	\$ 32,00
	Total Lead	ŝ	8.00	4	\$	32.00	Ś	7.00	4	\$	28,00	\$	7.00	4	\$	28.00	\$	8.00	4	;	\$ 32.00
	Total Mercury	\$	17.50	4	\$	70.00	\$	25.00	4	\$	100.00	\$	15,00	4	\$	60,00	\$	17.50	4		\$ 70.00
	Total Nickel	\$	8,00	4	\$	32.00	\$	7.00	4	ş	28.00	Ş	7,00	4	Ş	28.00	ş	8,00	4		5 32.00
	Total Selenium	ş	8.00	4	ş	32.00	÷	7,00	4	ę	28,00	ş	7.00	4	ŝ	28.00	ŝ	8,00	4		\$ 32.00
	Total Thailium	ş	8.00	4	ś	32.00	š	7.00	4	š	28.00	\$	7.00	4	\$	26,00	\$	8,00	4	;	\$ 32.00
	Total Zinc	ŝ	8.00	4	\$	32.00	\$	7.00	4	\$	28,00	\$	7.00	4	\$	28.00	\$	8.00	4	1	\$ 32.00
Other Par	maters																				
	Total Phenois	\$	20,00	4	\$	80.00	\$	25,00	4	ş	100.00	Ş	25.00	4	Ş	100.00	ş	20.00	4		5 80.00
	Total Chlorine Residual	\$	10.00	4	Ş	40.00	Ş	5,00	4	ş	20,00	ş	15.00	4	÷ Š	872.00	2	10.00			\$ 910.00
Tovicity	sublicities metals/acute loxicity				*	210,00				۷	011.00				,						
JOGERY	NOAEL Static 48-hr Acute D. Pulex	\$	-	4	\$	-	\$	-	4	\$	-	\$	-	4	\$	-	\$	-	4	;	÷ -
	NOAEL Static 48-hr Acute Pimephales	\$	-	4	\$	-	\$	-	4	\$	-	\$	-	4	ş	-	ş	-	4	ŝ	ş -
	Subtotal Toxicity Testing				\$	-				Ş	-				Ş	-				*	, .
	Subtotal Acute Aquatic Toxicity				\$	910,00				\$	812.00				\$	872.00				ş	910,00
				PHOENIX LAB	s				AQUA LABS					MICRO-BAC				PH	OENIX BA	SELINE	
		G	ost per	Number of		Total	c	ost per	Number of		Total	c ·	ost per	Number of		Total	6	lost per	Number	of	Total
<u>Residuals</u>	Sludge) Testing	A	<u>nalysis</u>	Sample/Year		<u>Cost</u>	A	<u>naiysis</u>	Sample/Year		Cost	Δ	natysis	Sample/Year		COST	ŧ	unaiysis	Şample/1	ear	<u>cost</u>
Metals																					
	Total Arsenic	\$	8.00	1	\$	8.00	\$	10,00	1	Ş	10,00	\$	7.00	1	ş	7.00	ş	8.00	1	2	8.00
	Total Beryllium	\$	8.00	1	ş	8.00	ş	10.00	1	ş	10,00	ş	7.00	1	ڊ خ	7.00	ç	8.00	1	4	8.00
	Total Cadmium	ş	B,00	1	ş	8,00	ې د	10.00	1	ę	10.00	ş	7.00	1	ŝ	7.00	ś	8.00	î	Z	8,00
	Jotal Chromium	ě	8,00 8,00	1	ě	800	š	10.00	1	ś	10.00	š	7.00	1	ŝ	7.00	\$	8.00	1		8.00
	Total Lead	š	8,00	1	ŝ	8,00	\$	10.00	1	\$	10.00	\$	7,00	1	\$	7,00	\$	8.00	1	Ş	8.00
	Total Mercury	\$	17,50	1	\$	17.50	\$	10.00	1	\$	10.00	\$	15.00	1	\$	15.00	\$	17,50	1	\$	\$7,50
	Total Nickel	\$	8.00	1	\$	8.00	\$	10,00	1	\$	10.00	\$	7.00	1	\$	7.00	\$	8.00	1	ş	8.00
	Total Zinc	\$	8.00	1	\$	8,00	\$	10.00	1	\$	10,00	\$	7,00	1	ş	7.00	\$	8.00	1	\$	8.00
Other Para	meters	¢	31.00	1	ę	12:00	¢	10.00	1	s	10.00	Ś	15.00	1	\$	15.00	\$	11.00	1	\$	11.00
	total Solids Total Fixed Solids	÷	10.50	1	ś	10.50	ś	10.00	ĩ	Ś	10,00	š	20.00	1	Ś	20.00	\$	10.50	1	\$	10.50
	Total Volatile Solids	š	14.00	1	ŝ	14,00	\$	10.00	1	\$	10.00	\$	20,00	1	\$	20,00	\$	14.00	1	\$	14.00
	Polychlorinated Biphenyls	\$	58,00	ĩ	\$	58.00	\$	70,00	1	\$	70.00	\$	60.00	1	\$	60.00	\$	58.00	1	\$	58,00
	Total Nitrogen (*)	Cal	culated	1	\$	-	Ca	lculated	1	ş	-	Cal	culated	1	Ş	-	Ça	Iculated	1	\$	-
	Ammonia as Nikrogen (*)	\$	18.00	1	\$	18,00	\$	20.00	1	ş	20.00	ş	15.00	1	ş	10,00	è è	18.00	1	5 ¢	18.00
	Nitrate as Nitrogen (*)	ş	9,00	1	ş	9,00	ş	12.00	1	ç	12.00	è	10,00	1	÷	10.00	ś	9.00	1	ŝ	9.00
	Nitrite as Nitrogen (*) Tabul Kialdahi Nitrogen (*)	ş	9.00	1	ş	19.00	4	20,00	1	ş	20.00	ş	20.00	1	ŝ	20.00	ŝ	19.00	1	ŝ	19.00
	ndi njelozni nitrogen (*)	Ś	5.00	1	ŝ	5.00	Ś	5.00	î	\$	5.00	ŝ	15.00	1	\$	15,00	\$	5,00	1	\$	5,00
	subtatal Sludge Zetting Cost			_	\$	235.00	•			Ś	259.00	-			\$	256.00				\$	235.00
	SUCCOUNTRY ANALYTICAL COST				¢	8791.00				5	9,527,00				\$1	9,692.00				\$	9,541,00
	ATHER COSTS (Delivery and				¢			\$50.00	52	Ś	2,600.00				Ś					\$	-
	ornen cuara (penvery, etc.)					8 701 00				ć	2 127 00				Ś	9.692.00				\$	9,541.00
	IDIALLOSIS				~	0,151.00				~ ~ ~						,				-	-

(*) - Required if sludge to be ultimately disposed via composting or land application.

ATTACHMENT E

WPCF SYSTEM PERFORMANCE AND CONDITION ASSESSMENT Table of Contents

NEW HARTFORD WASTEWATER POLLUTION CONTROL FACILITY SYSTEM PERFORMANCE AND CONDITION ASSESSMENT

Prepared for Town of New Hartford Water Pollution Control Authority 530 Main Street – PO Box 316 New Hartford, CT 06057

Prepared by Aquarion Water Company of Connecticut 835 Main Street Bridgeport, CT 06604

Contacts Derek Albertson, Superintendent Chris Labrie, Shift Operator Michael Crawford, P.E. Project Manager

March 2017

SYSTEM PERFORMANCE AND CONDITION ASSESSMENT REPORT New Hartford Water Pollution Control Authority

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- A. NPDES Permit Limits
- B. Photographs of Managed Wastewater Assets
- C. Hour Log Summary for Unit Operations
- D. SBR Pre-Set Settings at Initiation of Contract September 1, 2016
- E. Fluidyne Service Report October 25, 2016
- F. Process Control Summary Log
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