



February 17, 2016

**VIA ELECTRONIC FILING AND US MAIL**

Jeffrey R. Gaudiosi, Esq.  
Executive Secretary  
Public Utilities Regulatory Authority  
Ten Franklin Square  
New Britain, CT 06051

**Re: Docket No. 15-08-24 – Joint Investigation of DPH and PURA Regarding Cedarhurst Association, Inc.'s Request to Cease Operations as a Water Company**

Dear Mr. Gaudiosi:

Enclosed please find Aquarion's responses to DPH-20 through DPH-27, EN-18, EN-19, RA-8 and RA-9.

We certify that this filing is being made electronically and that the electronic filing is complete. Should you have any questions concerning the foregoing, please contact me at your convenience at (203) 362-3001.

Sincerely,

Debra Kirven  
Controller

Aquarion Water Company of Connecticut  
Response to Interrogatories

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- Q.) DPH-20: Describe Aquarion's organizational structure. Please also provide the name and title of the person(s) who has the authority to enter into binding agreements on behalf of Aquarion and the document that provides such authority.
- A.) DPH-20: Aquarion owns and operates 67 public water supply systems serving 51 towns and cities throughout Connecticut. For rate purposes these systems are divided into four Divisions: Eastern, Western, Northern and Southern. Other than for ratemaking, there is generally no operational or regulatory distinction between the Divisions.

In regards to water system acquisition, subject to authorization by the Board of Directors, the officers of the Company have the authority to enter into binding agreements on behalf of Aquarion.

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- Q.) DPH-21: Describe Aquarion's geographical proximity to the Cedarhurst Association, Inc.'s ("Cedarhurst") water system in Newtown, Connecticut.
- A.) DPH-21: Refer to Page 6 of DPH-21 Attachment 1 for the Water System Assessment and Improvement Plan prepared by Aquarion Water Company dated February 17, 2016 for the geographical proximity to the Cedarhurst Association system.
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**Water System Assessment and Improvement Plan**  
**Prepared by Aquarion Water Company**  
**Cedarhurst Water System – Newtown, CT**

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## Water System Assessment and Improvement Plan

Prepared by Aquarion Water Company

Cedarhurst Water System – Newtown, CT

### I. Regulatory Timeline and Cedarhurst Actions to Cease Operations

- In a letter dated September 31, 2014, Cedarhurst Association requested assistance from PURA and DPH concerning the water system serving 17 active customers within the community.
- Previously, Cedarhurst had contacted Aquarion to inquire if the Company would be interested in acquiring the system. After performing a site visit on August 27, 2014, the Company concluded that the poor quality of the infrastructure (instances of above ground water mains and valves, lack of back-up generation, single supply source, - all described in detail below), coupled with the scant customer base would make any voluntary acquisition untenable.
- PURA and DPH opened joint **Docket No. 14-11-05** for the review of Cedarhurst Association, Inc. request to review the system's economic viability.
- On May 20, 2015, PURA issued a "Docket Closing Action Other than a Decision" by letter to Cedarhurst. Within the letter, pursuant to CGS 16-262n (b), PURA made recommendations to Cedarhurst, including the hiring of an outside entity to manage, maintain and operate the system.
- On June 1, 2015, Cedarhurst requested further consideration and assistance from PURA and DPH in the process whereby they would be able to cease and desist operations as a water company.
- On October 7, 2015, a Notice of Hearing was issued by the Public Health Hearing Office, which was the first indication that a re-opened Docket was created **15-08-24**.
- ***Aquarion was declared a party to Docket 15-08-24, and has prepared assessments of the technical, managerial and financial requirements of operating the Cedarhurst water system. Much of our analyses and conclusions are summarized in this document.***

### II. Overview

#### a. Water System Information

Water System Name: Cedarhurst Association

PWSID Number: CT0970512

Exclusive Service Area Holder: Cedarhurst Association

Number of Customers: 18 (17 active) – all customers are unmetered

Population of System: 144 (based on CTDPH Public Drinking Water Section Water Quality Monitoring and Compliance Schedule). The water system provides water to 17 active residences (approximately 40 to 50 people).

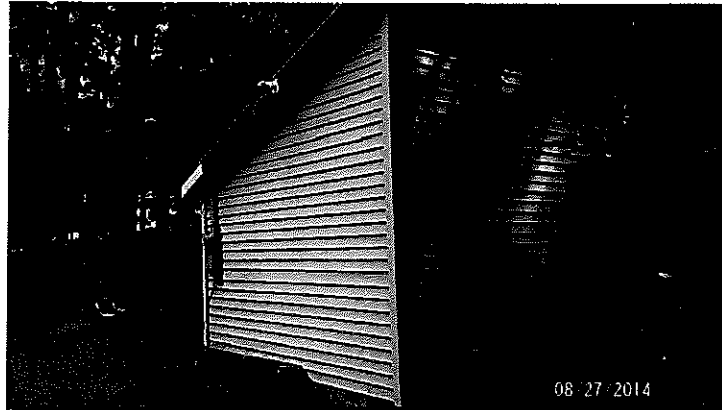
Existing Water Rate Structure: \$200 annually

**Water System Assessment and Improvement Plan**  
**Prepared by Aquarion Water Company**  
**Cedarhurst Water System – Newtown, CT**

**b. Water System Description**

**Water System Description**

The Cedarhurst Association Water System is a seasonal system. The water is normally turned on each year in mid April and is turned off Thanksgiving weekend. The Cedarhurst Association has a total of 65 homes, but only 17 are currently using water from the water system. The homes that use the water system pay \$200/year for water service. The homes that



do not use the water have their own private wells (approximately 2/3 of owners) and some of the homes that are using the water system also have private wells. The water system was built in the early to mid 1960's. The system has no hydrants and there is no generator or provisions for standby power for the well.

**Distribution**

- The distribution system is 2", 1 1/2" and 1 1/4" black plastic pipe that was installed in 2002, 2004 and 2006.
- The distribution piping is on the ground surface or minimally buried.
- Reportedly each home using water has an individual shut off valve.
- Shut off valves are of various types (ball valve observed).
- The system is one pressure zone served by one aboveground hydropneumatic tank.



**Operations**

- The well pumps to the hydropneumatic tank which pressurizes the water system.
- It was noted at the site visit that the well pump was producing 10gpm at 25psi.

## Water System Assessment and Improvement Plan

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Cedarhurst Water System – Newtown, CT

### Tank

- The system is served by one 2,000 gallon epoxy lined hydropneumatic tank.
- The tank is located above ground on stone & masonry cradles.
- The tank was installed in 2000 at a cost of \$6,000. It was inspected in 2010

All valves and piping associated with the tank are above ground



### Water Quality/Sanitary

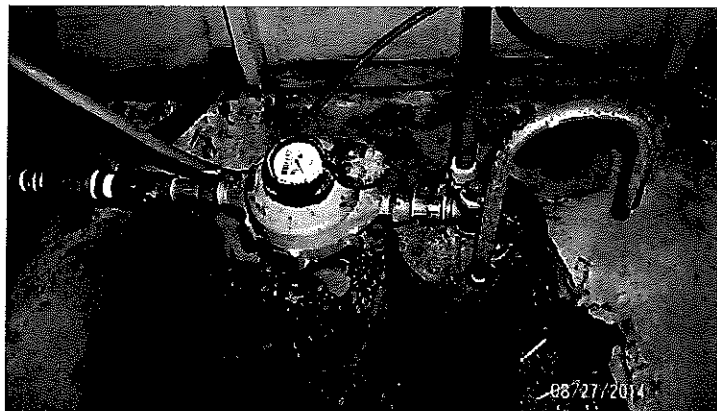
- The well water pH fluctuates between 5.8 and 6.4 and that copper action level was exceeded in 2009 and 2011.
- Aqua Environmental does the water quality testing for the Association.
- The facility has no water treatment.
- There is water flowing in a ditch 39-foot from the well and there is a small stream 78-feet from the well. The drainage ditch will need to be relocated and the well house site regraded.
- There is an unoccupied cottage on the property adjacent to the well. The closest source of pollution is the septic field of the house across the street which is more that 150' away.

## III. Infrastructure and Operational Assessment

### a. Water Supply Evaluation

Lake Zoar Well # 1 – DPH WSF ID 686

There is a single well serving the system. Well has an 8" casing and is 190' deep with the well pump set at 170'. A new well pump was installed in 1994. We were told that the well could pump 6,000 gallons per day multiple days in a row. The Association has indicated the pumping capacity is 5,000 to 6,000 gal/day and 300,000 gallons annually.



## Water System Assessment and Improvement Plan

Prepared by Aquarion Water Company

Cedarhurst Water System – Newtown, CT

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The average day and maximum day demands information provided by the Association are based on readings collected when the operator was at the system. Readings range from once every couple weeks to every day. Given the seasonal nature of the facility the average demands likely reflect a high usage during occupancy of the residences and little or no use during certain periods of the year. The estimated average day demand would be approximately 3,200 gallons (rounded) per day (17 residences X 75 gallons per day X 2.5 people per house). The estimated average day demand of 3,200 gallons per day will be used to evaluate the ability of the facilities to service the existing 17 residences in lieu of the values tabulated above.

The existing pumping rate of 10 gpm would provide an 18-hour pumping volume of 10,800 gallons and a 24 hour pumping volume of 14,400 gallons. This information will need to be confirmed as the existing pumping rate for the well pump is stated to be 10 gallons per minute.

The existing water system is required to meet peak hour demand, defined as 1/3 of the average day demand. Using an average day demand of 3,200 gallons, the peak hour demand would be 18 gpm. The existing system has a peak hour delivery of 10 gpm and no atmospheric. The system will need be modified to utilize atmospheric storage, booster pumping with variable frequency drives and a small vertical hydropneumatic tank to meet peak hour demands.

### **b. Property Rights**

- The well is on property owned by the Association.
- The sanitary radius for well number 1 is on the property associated with the well. If the sanitary radius extends beyond the property the Association will grant the needed easements to meet the sanitary radius requirements.
- The Association pays taxes for the land and personal property.
- The Association has rights over the roads which are contained in the deed. Easements will be granted for the existing and new piping.



**Water System Assessment and Improvement Plan****Prepared by Aquarion Water Company****Cedarhurst Water System – Newtown, CT****c. System Operation and Estimate of Operating Costs for Running System as a Satellite System**

Aquarion Water Company would operate the system as a stand alone satellite system. During the first year the system would utilize the existing well and pH and chlorination would be added to the water to address the water quality issues. The water system would be modified to convert the existing hydropneumatic tank to an atmospheric tank and add pumps with variable frequency drives and controls. Refer to Proposed Improvement Plan for the remainder of improvements to the water system.

The cost associated with operation and maintenance of the system is attached and results in an annual operating and maintenance cost of \$16,694. The detail of the Operation and Maintenance costs are summarized below:

Item	Total Cost
O&M Labor and overheads, including transportation	\$ 9,560
Chemicals: pH and Chlorine	168
Chlorine/pH Analyzer Accessories	560
Chlorine Feed Accessories	560
Caustic Feed Accessories	560
Miscellaneous Building Maintenance Supplies	1,680
Purchased Fuel	3,606
<b>Total O&amp;M Cost</b>	<b>\$ 16,694</b>

**d. Interconnection to Existing Aquarion Water System**

The Cedarhurst water system is located approximately 3.25 miles by road from Aquarion's Newtown system and 4.25 miles by road from the Olmsted system in Sandy Hook.

**e. Proposed Improvement Plan**

Based on Aquarion's initial inspection and initial due diligence of the system the following improvements are considered reasonable and necessary for operation of the Cedarhurst System within 3 years of ownership. Further due diligence may identify additional improvement needs. All of the improvements are necessary in the short term in order to bring this water system up to contemporary standards.

**Water System Assessment and Improvement Plan****Prepared by Aquarion Water Company****Cedarhurst Water System – Newtown, CT*****Detailed Summary of Proposed Improvements***

<b>No.</b>	<b>Description</b>	<b>Estimated Cost</b>	<b>Year</b>
1	Replace electrical and controls for the well.	\$10,000	1
2	Replace well pump and rehabilitate the well.	\$20,000	1
3	Installation of an emergency generator.	\$25,000	1
4	Convert the existing hydropneumatic tank to an atmospheric tank and add pumps with variable frequency drives and controls	\$30,000	1
5	The system currently has no remote alarming and relies on customer notification of system operational problems. Add a remote alarm system with phone line.	\$10,000	1
6	Build an insulated structure around the converted atmospheric tank and properly bury all piping between the well and the tank.	\$25,000	1
7	Expand existing pump house building to accommodate chlorination and pH control.	\$35,000	1
8	Install chlorination and pH control.	\$30,000	1
9	Regrade around well house to create positive drainage away from the site and relocate existing drainage ditch within 50-feet of well.	\$35,000	1
<b>Subtotal – Year 1 Improvements</b>		<b>\$220,000</b>	<b>NA</b>
10	Replace all 2,700 feet of distribution piping with 4" HPDE which will be buried to the proper depth below the frost line. Cost is estimated based on \$200/foot for the pipe and an additional \$50/foot for rock.	\$675,000	2
11	Install meters with meter pits and curb stops and connect to the existing services for each customer. Cost for meter installation with curb stop is \$2,200 each. 17 customers @ \$2,200 each - \$37,400.	\$37,400	2
<b>Subtotal Year 2 Improvements</b>		<b>\$712,400</b>	<b>NA</b>
12	Investigate location for additional well. Obtain land rights and easements.	\$25,000	3-5
13	Install a second production well, electrical, and control (it is expected the well can be located on the Association property in close proximity to the existing well house and that the Association will grant property rights).	\$50,000	3-5
14	Install piping to existing well house	\$35,000	3-5
<b>Subtotal – Year 3 to 5 Improvements</b>		<b>\$110,000</b>	<b>NA</b>
<b>TOTAL IMPROVEMENTS</b>		<b>\$1,042,400</b>	<b>NA</b>

**Water System Assessment and Improvement Plan****Prepared by Aquarion Water Company****Cedarhurst Water System – Newtown, CT***Summary of Improvements by Category*

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Mains	\$ -	\$ 675,000	\$ -	\$ -	\$ -	\$ 675,000
Source of Supply	190,000	-	35,000	75,000	-	300,000
Transmission & Distribution	-	34,000	-	-	-	34,000
Treatment	30,000	-	-	-	-	30,000
Meters	-	3,400	-	-	-	3,400
<b>Total Capex</b>	<b>\$ 220,000</b>	<b>\$ 712,400</b>	<b>\$ 35,000</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ 1,042,400</b>

**IV. Water Rates - Proposed Customer Water and Surcharge Rates**

The proposed water rates for Cedarhurst customers is determined by first calculating the cost of service, second calculating the amount of revenues that can be reasonably expected to be charged to Cedarhurst customers (i.e., affordable rates threshold), and then third, calculating and assessing the revenue requirement that must be borne by legacy AWC-CT customers as a result of Cedarhurst customers not being able to afford the full cost of service.

The table below presents the cost of providing service for the various surcharge periods to conform to PURA requests in similar acquisitions of non-viable systems. The cost of service consists of recovering the operating and maintenance costs of the system, projected to be approximately \$16,700 per year. In addition, the revenue requirement must provide for the return requirement, depreciation, property taxes and income taxes associated with the estimated \$1,042,400 capital investment. The cost of service is reduced by the revenues collected from base rates to derive the net cost of providing service to the Cedarhurst customers, which determines the surcharge assessed to Cedarhurst customers.

In each of these recovery periods, (20, 25, and 40 years), the cost of service associated with the entire capital investment is recovered, while the operation and maintenance costs represent only those costs incurred during that respective period.

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<b>Cedarhurst Improvements Revenue Requirement</b>	<b>20 Year Surcharge</b>	<b>25 Year Surcharge</b>	<b>40 Year Surcharge</b>	<b>40 Year Surcharge*</b>
<u>Cost of Providing Service over the life of the Asset</u>				
Required Return	\$ 1,383,911	\$ 1,383,911	\$ 1,383,911	\$ 1,383,911
Operating & Maintenance	333,880	417,350	667,760	667,760
Depreciation	1,042,400	1,042,400	1,042,400	1,042,400
Property Taxes	370,403	370,403	370,403	370,403
Income Taxes	642,179	642,179	642,179	642,179
Cost of Service	<u>\$ 3,772,773</u>	<u>\$ 3,856,243</u>	<u>\$ 4,106,653</u>	<u>\$ 4,106,653</u>
Less: Rev. Recovered thru Flat Rates	(221,462)	(276,828)	(442,925)	(442,925)
Net Cost of Service	<u>\$ 3,551,311</u>	<u>\$ 3,579,415</u>	<u>\$ 3,663,728</u>	<u>\$ 3,663,728</u>
Surcharge Effective Period	20	25	40	40
Average Annual Revenue Requirement	<u>\$ 177,566</u>	<u>\$ 143,177</u>	<u>\$ 91,593</u>	<u>\$ 91,593</u>
Number of Customers	17	17	17	17
Annual Surcharge per Customer	<u>\$ 10,445</u>	<u>\$ 8,422</u>	<u>\$ 5,388</u>	<u>\$ 5,388</u>
Monthly Surcharge/Cust. 50% Recovery	<u>\$ 435.21</u>	<u>\$ 350.92</u>	<u>\$ 224.49</u>	
Monthly Surcharge/Cust. 60% Recovery	<u>\$ 522.25</u>	<u>\$ 421.11</u>	<u>\$ 269.39</u>	
Monthly Surcharge/Cust. 75% Recovery	<u>\$ 652.81</u>	<u>\$ 526.38</u>	<u>\$ 336.74</u>	
<u>Calculation of Annual Cost</u>				
Monthly Surcharge/Cust. 11% Recovery				<u>\$ 50.00</u>
Monthly Surcharge/Cust. 100% Recovery	<u>\$ 870.42</u>	<u>\$ 701.85</u>	<u>\$ 448.99</u>	
Current Aquarion Flat Rate per month	<u>54.28</u>	<u>54.28</u>	<u>54.28</u>	<u>54.28</u>
Total Monthly Bill per customer	<u>\$ 924.70</u>	<u>\$ 756.13</u>	<u>\$ 503.27</u>	<u>\$ 104.28</u>
Annual Cost for Cedarhurst Customers	<u>\$ 11,096.39</u>	<u>\$ 9,073.51</u>	<u>\$ 6,039.20</u>	<u>\$ 1,251.36</u>

\*This column calculates the cost recovery from Cedarhurst customers with a \$50 surcharge per month.

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The first year revenue requirement is summarized below:

	<u>Cost of Providing Service-Year 1</u>	
Required Return		\$ 76,980
O&M		16,694
Depreciation		12,636
Property Taxes		22,924
Income Taxes		35,721
Total Cost of Service (Revenue Requirement)		<u>\$ 164,956</u>
<b><i>Revenues recovered from Cedarhurst customers:</i></b>		
Base Rates @ AWC-CT flat rates (\$54.28/mo)	<b>\$ 651.36</b>	\$ 11,073
Surcharge @ Max Affordability rates	<b>\$ 600.00</b>	10,200
Total revenues - Cedarhurst		<u>\$ 21,273</u>
% Revenues recovered - Cedarhurst customers:		<u>12.9%</u>
Revenues impact per Cedarhurst customer per year:		<u>\$ 1,251.36</u>
<b><i>Revenue shortfall recovered from other Aquarion customers:</i></b>		
Revenues from AWC Customers - Annual		\$ 143,683
% Revenues recovered - Aquarion customers:		<u>87.1%</u>
Revenue impact per AWC legacy customer per year:	<b>195,613</b> customers	\$ 0.73
Revenue impact per AWC legacy customer per month:		\$ 0.06

As can be seen in the table above, the annual revenue requirement is \$164,956 for the first year. In general, the Cedarhurst community consists mainly of very modest homes, some of which were originally summer bungalows that have been converted to year-round residences. Charging these customers such an amount would be a tremendous burden and one that frankly could not be expected to be recovered from the customers.

Therefore, AWC-CT has made a judgmental determination of what it believes is the maximum annual water bill that it believes could be levied on these customers. This amount was determined to be \$1,251.36, which consists of the Eastern division flat rate of \$651.36 per year plus an additional \$600 per year surcharge. This annual revenue amount per customer multiplied by 17 customers yields the recovery of \$21,273 per year toward the cost of providing service to the community. This represents approximately 12.9% of the first year's revenue requirement.

The remaining revenue requirement, \$143,683, or 87.1%, would be borne by the legacy AWC-CT customers in the first year. The impact on the typical AWC-CT legacy customer would be approximately \$0.06 per month, or \$0.73 per year.

We believe that these proposed rates are reasonable as they:

**Water System Assessment and Improvement Plan**  
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- 
- Hold Cedarhurst customers accountable for as much of the cost of providing a solution as they can bear without breaching the “affordability rate for water service”; and,
  - The overall burden shifted to AWC-CT customers, while significant in total, is relatively modest given the broad base of customers, and achieves the noble premise that all citizens of the State of Connecticut deserve clean and reliable water service.

## **V. Final Observations and Conclusions**

### Final Observations:

- Based on our inspection of the Cedarhurst water system, we believe that extensive capital improvements are needed to ensure safe and reliable water service to the community.
- The on-going operating and maintenance costs to run the system will be higher than what has been incurred in the past, when little, if any maintenance was performed.
- The customer base consists of 17 homes, with an indication by Cedarhurst that “several of those use water as a convenience due to the inexpensive nature of the service and would no longer use it if there were a substantial increase in price,” (refer to Mary Ann Jacob letter to PURA dated June 1, 2015).
- Notwithstanding the Town of Newtown’s water system at Fairfield Hills, Aquarion is not aware of other water systems near the Cedarhurst system.
- A voluntary acquisition of the system is not viable.

### Conclusions:

- Cedarhurst should be held accountable, to the extent economically feasible, to pay for the improvements and cost to provide service to Cedarhurst. Aquarion estimates that increasing customer rates from \$200.00 to \$1,251.36 serves this purpose.
- The overall burden shifted to AWC-CT customers, while significant in total, is relatively modest given the broad base of customers, and achieves the noble premise that all citizens of the State of Connecticut deserve clean and reliable water service.
- If PURA and DPH determine that Aquarion should be ordered to acquire the system, Aquarion would comply.

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Q.) DPH-22: Provide a brief description of Aquarion's financial, managerial and technical resources to operate the Cedarhurst water system in a reliable and efficient manner and to provide continuous, adequate service to the persons served by the system.

A.) DPH-22: As recognized in recent decisions approving Aquarion's acquisition of other systems in Connecticut (e.g., Bedrock Water Association, Docket No. 10-03-18, Indian Fields Homeowner's Association, Docket No. 13-02-04, Dunham Pond, Docket No. 12-02-03, and Mechauer, Docket No. 11-09-01), Aquarion's knowledge, experience and access to financial markets presents financing opportunities, commitment to infrastructure improvements and top notch customer service for the Cedarhurst system.

Additionally, former Cedarhurst System customers will benefit from the wide range of skills and expertise present in Aquarion's workforce. Aquarion takes pride in its ability to answer customer inquiries and resolve customer concerns efficiently, quickly, and on the first contact. Customers will benefit from our focus on the continual improvements of the customer experience as well as our state-of-the-art technology.

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Q.) DPH-23: Provide a summary of Aquarion's experience acquiring and/or operating similar systems.

A.) DPH-23: Aquarion has a long history of acquiring and assimilating water systems into our operations. Aquarion has been, and continues to be, successful in acquiring water systems, addressing water issues within the region and improving customer service delivery through a program of prudent capital investments and efficient operations. The previous system acquisitions are listed below.

System	Year Aquired
Timber Trails	1988
Kent	1995
Lakeside	1997
Hawkstone	1997
Village Water Company	2001
Connecticut American Water Company	2002
Ball Pond	2003
Topstone Hydraulic Company	2011
Brookfield Water Company	2011
Rural Water Company	2011
Candlewood Acres	2011
Ron Black Water Systems	2012
Birchwood Water System	2011
Meckauer Water System	2012
Dunham Pond Water System	2012
United Water Connecticut	2012
Indian Fields Homeowner's Association	2013
West Service Corporation	2014
Valley View Water System	2014
East Derby Waterworks	2014
Bedrock Water System	2014

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- Q.) DPH-24: Describe any discussions Aquarion has had with Cedarhurst regarding a potential acquisition, including the substance of such discussions. Please also provide any documents relating to such discussions, including any correspondence or meeting minutes at which such acquisition was discussed.
- A.) DPH-24: Aquarion spoke to David Harlow in July, 2014. Mr. Harlow was running the Cedarhurst Association system at the time and arranged a site visit on August 27, 2014. Based on our initial inspection of the system, Aquarion recognized the extensive capital needed for system improvements and the on-going costs to run the system. Coupled with a small customer base, we indicated that a voluntary acquisition of the system was not viable. When asked about other potential options, Aquarion suggested that Cedarhurst reach out to PURA and the Department of Public Health ("DPH"). If PURA and DPH determine that Aquarion should be ordered to acquire the system, Aquarion would comply.
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- Q.) DPH-25: After Aquarion has inspected and done its due diligence on the Cedarhurst water system, describe how Aquarion will provide water service to the customers of the Cedarhurst water system if Aquarion was ordered to acquire it.
- A.) DPH-25: Aquarion Water Company would operate the system as a stand alone satellite system. Refer to Page 6 of DPH-21 Attachment 1 for the Water System Assessment and Improvement Plan prepared by Aquarion Water Company dated February 17, 2016 for the system operations.
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Q.) DPH-26: Provide Aquarion's current rate structure.

A.) DPH-26: Please refer to DPH-26 Attachment 1 for the Company's approved tariff pages.

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**Schedule of Approved Rates (issued and effective February 7, 2014 per docket 13-02-20 and 13-01-11)**

<b>Eastern Division - General Service, Public &amp; Private Fire</b>			
<b><u>Metered Rate</u></b>			
<b><u>Minimum Service Charge</u></b>			
<b><u>Meter Size</u></b>	<b><u>Quarterly</u></b>	<b><u>Monthly</u></b>	
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	
<b><u>Water Consumption Charge</u></b>			
<b>Customers Billed Quarterly</b>		<b>Customers Billed Monthly</b>	
<b><u>Per 100 Cubic Feet (CCF)</u></b>		<b><u>Per 100 Cubic Feet (CCF)</u></b>	
First 420 CCF	\$4.234	First 140 CCF	\$4.234
Over 420 CCF	\$2.083	Over 140 CCF	\$2.083
<b><u>Per 1000 Gallons (TG)</u></b>		<b><u>Per 1000 Gallons (TG)</u></b>	
First 314 TG	\$5.660	First 105 TG	\$5.660
Over 314 TG	\$2.785	Over 105 TG	\$2.785
<b><u>Private Fire Annual Charges</u></b>			
<b><u>Service Size</u></b>	<b><u>Annual</u></b>		
2"	\$181.38		
4"	\$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		
<b><u>Public Fire Annual Charges</u></b>			
Annual Charge per inch Foot of Mains	\$0.09242		
Company Owned Hydrant Charge	\$264.58		



**AQUARION**  
*Water Company*

*Stewards of the Environment*

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

<b>Eastern Division (Topstone) - General Service, Public &amp; Private Fire</b>			
<u>Minimum Service Charge</u>		<u>Metered Rate</u>	
<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

<u>Water Consumption Charge</u>			
<u>Customers Billed Quarterly</u>		<u>Customers Billed Monthly</u>	
<u>Per 100 Cubic Feet (CCF)</u>		<u>Per 100 Cubic Feet (CCF)</u>	
First 420 CCF	\$6.870	First 140 CCF	\$6.870
Over 420 CCF	\$6.870	Over 140 CCF	\$6.870
<u>Per 1000 Gallons (TG)</u>		<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

<u>Private Fire Annual Charges</u>	
<u>Service Size</u>	<u>Annual</u>
2"	\$181.38
4"	\$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

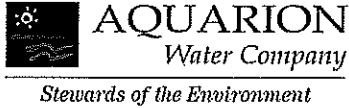
  

<u>Public Fire Annual Charges</u>	
Annual Charge per Inch Foot of Mains	\$0.02649
Company Owned Hydrant Charge	\$72.58



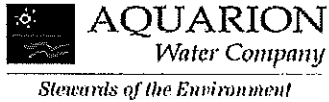
Schedule of Approved Rates (issued and effective February 7, 2014 per docket 13-02-20)

<b>Eastern Division (Rural) - General Service, Public &amp; Private Fire</b>			
<u>Minimum Service Charge</u>		<u>Metered Rate</u>	
<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
<u>Water Consumption Charge</u>		<u>Federal Road System Consumption Charge</u>	
<u>Per 100 Cubic Feet (CCF)</u>	\$4.234	<u>Per 100 Cubic Feet (CCF)</u>	\$4.234
<u>Per 1000 Gallons (TG)</u>	\$5.660	<u>Per 1000 Gallons (TG)</u>	\$5.660
<u>Non-Metered Flat Rate Year Round Service</u>			
<u>Per Month</u>	\$ 49.74		
<u>Per Quarter</u>	\$ 149.22		
<u>Seasonal Service</u>	\$ 298.45		
<u>Private Fire Annual Charges</u>			
<u>Service Size</u>	<u>Annual</u>		
2"	\$96.50		
4"	\$385.74		
6"	-\$868.25		
8"	\$1,543.49		
10"	\$2,411.74		
12"	\$3,472.73		
Private Hydrant - Company Installed	\$1,143.69		
Private Hydrant - Customer Installed	\$935.20		
<u>Public Fire Annual Charges</u>			
Company Owned Hydrant Charge		\$414.33	



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

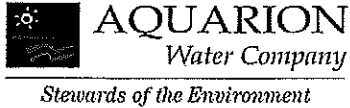
<b>Eastern Division (Brookfield Water) - General Service, Public &amp; Private Fire</b>			
<u>Minimum Service Charge</u>	<u>Metered Rate</u>		
	<u>Meter Size</u>	<u>Quarterly</u>	<u>Monthly</u>
	5/8"	\$38.67	\$12.89
	3/4"	\$58.02	\$19.34
	1"	\$96.66	\$32.22
	1 1/2"	\$193.38	\$64.46
	2"	\$309.39	\$103.13
	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
<u>Water Consumption Charge</u>			
<b>Customers Billed Quarterly</b>			
	<u>Residential Per 100 Cubic Feet (CCF)</u>		\$4.234
	<u>Residential Per 1000 Gallons (TG)</u>		\$5.660
	<u>Commercial &amp; Industrial Per 100 Cubic Feet (CCF)</u>		\$8.977
	<u>Commercial &amp; Industrial Per 1000 Gallons (TG)</u>		\$12.000
	<u>Public Authority Per 100 Cubic Feet (CCF)</u>		\$3.586
	<u>Public Authority Per 1000 Gallons (TG)</u>		\$4.793
<u>Private Fire Annual Charges</u>			
<u>Service Size</u>	<u>Annual</u>		
2"	\$96.50		
4"	\$385.74		
6"	\$868.25		
8"	\$1,543.49		
10"	\$2,411.74		
12"	\$3,472.73		
Private Hydrant - Customer Installed	\$935.20		
Private Hydrant - Company Installed	\$1,143.69		
<u>Public Fire Annual Charges</u>			
Company Owned Hydrant Charge	\$414.33		



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

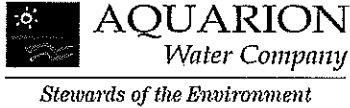
<b>Eastern Division (Olmstead, Judea, Tyler, Circle Drive &amp; Chestnut Tree Hill ) General Service</b>				
<b>Minimum Service Charge</b>				
<u>Meter Size</u>	<u>Metered Rate</u>		<u>Metered Rate</u>	
	<u>(Olmstead, Tyler -Woodrich, Clearview &amp; Indian Spring, Judea)</u>		<u>(Tyler Lake, Circle Drive &amp; Chestnut Tree Hill )</u>	
	<u>Quarterly</u>	<u>Monthly</u>	<u>Quarterly</u>	<u>Monthly</u>
5/8"	\$38.67	\$12.89	\$38.67	\$12.89
3/4"	\$58.02	\$19.34	\$58.02	\$19.34
1"	\$96.66	\$32.22	\$96.66	\$32.22
1 1/2"	\$193.38	\$64.46	\$193.38	\$64.46
2"	\$309.39	\$103.13	\$309.39	\$103.13
3"	\$580.11	\$193.37	\$580.11	\$193.37
4"	\$966.90	\$322.30	\$966.90	\$322.30
6"	\$1,933.80	\$644.60	\$1,933.80	\$644.60
8"	\$3,094.11	\$1,031.37	\$3,094.11	\$1,031.37
10"	\$4,447.74	\$1,482.58	\$4,447.74	\$1,482.58
12"	\$8,315.37	\$2,771.79	\$8,315.37	\$2,771.79
16"	\$11,022.66	\$3,674.22	\$11,022.66	\$3,674.22
<b>Customers Billed Quarterly</b>				
<u>Water Consumption Charge</u>		<u>Water Consumption Charge</u>		
<u>(Olmstead, Tyler-Woodrich, Circle Drive &amp; Chestnut Tree Hill)</u>		<u>(Tyler- Lake Water &amp; Judea)</u>		
<u>Per 100 Cubic Feet (CCF)</u>	\$3.736	<u>Per 100 Cubic Feet (CCF)</u>	\$4.234	
<u>Per 1000 Gallons (TG)</u>	\$4.994	<u>Per 1000 Gallons (TG)</u>	\$5.660	
<u>Water Consumption Charge (Tyler-Indian Spring &amp; Clearview)</u>				
<u>Per 100 Cubic Feet (CCF)</u>	\$2.214			
<u>Per 1000 Gallons (TG)</u>	\$2.959			
<b>Private Fire Annual Charges</b>				
<u>Service Size</u>	<u>Annual</u>			
2"	\$181.38			
4"	\$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			
<b>Public Fire Annual Charges</b>				
Public-Inch Foot Charge	\$0.0924			
Company Owned Hydrant Charge	\$264.58			





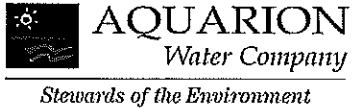
Schedule of Approved Rates (issued and effective February 7, 2014 per docket 13-02-20)

<b>Eastern Division (United) - General Service, Public &amp; Private Fire</b>			
<u>Minimum Service Charge</u>	<u>Metered Rate</u>		
	<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
<u>Water Consumption Charge</u>			
<b>Residential</b>			
<i>Per 1000 Gallons (TG)</i>		\$6.264	
<b>Commercial &amp; Public Authority</b>			
<i>Per 1000 Gallons (TG)</i>		\$5.660	
<b>Industrial</b>			
<i>Per 1000 Gallons (TG)</i>		\$5.208	
<u>Private Fire Annual Charges</u>			
<u>Service Size</u>		<u>Annual</u>	
2"		\$134.75	
4"		\$539.36	
6"		\$1,213.47	
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	
<u>Public Fire Annual Charges</u>			
Annual Charge per Inch Foot of Mains		\$0.06903	
Company Owned Hydrant Charge		\$264.58	
Public Sprinkler 6"		\$1,213.47	



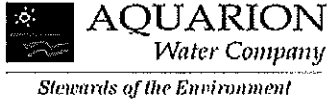
Schedule of Approved Rates (issued and effective February 7, 2014 per docket 13-02-20)

<b>Western Division - General Service, Public &amp; Private Fire</b>			
<u>Minimum Service Charge</u>		<u>Metered Rate</u>	
<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
<u>Water Consumption Charge</u>			
<u>Customers Billed Quarterly</u>		<u>Customers Billed Monthly</u>	
<u>Per 100 Cubic Feet (CCF)</u>		<u>Per 100 Cubic Feet (CCF)</u>	
First 420 CCF	\$3.361	First 140 CCF	\$3.361
Over 420 CCF	\$2.083	Over 140 CCF	\$2.083
<u>Per 1000 Gallons (TG)</u>		<u>Per 1000 Gallons (TG)</u>	
First 314 TG	\$4.493	First 105 TG	\$4.493
Over 314 TG	\$2.785	Over 105 TG	\$2.785
<u>Private Fire Annual Charges</u>			
<u>Service Size</u>	<u>Annual</u>		
2"	\$181.38		
4"	\$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		
<u>Public Fire Annual Charges</u>			
Annual Charge per Inch Foot of Mains		\$0.09748	
Company Owned Hydrant Charge		\$264.58	



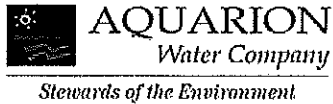
Schedule of Approved Rates (issued and effective February 7, 2014 per docket 13-02-20)

<b>Northern Division - General Service, Public &amp; Private Fire</b>			
<u>Minimum Service Charge</u>	<u>Metered Rate</u>		
	<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
<u>Water Consumption Charge</u>			
<u>Per 100 Cubic Feet (CCF)</u>			
All Consumption		\$2.448	
<u>Per 1000 Gallons (TG)</u>			
All Consumption		\$3.272	
<u>Private Fire Annual Charges</u>			
<u>Service Size</u>	<u>Annual</u>		
2"	\$181.38		
4"	\$476.15		
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		
<u>Public Fire Annual Charges</u>			
Annual Charge per Inch Foot of Mains		\$0.04435	
Company Owned Hydrant Charge		\$264.58	



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

<b>Southern Division - General Service, Public &amp; Private Fire</b>			
<u>Minimum Service Charge</u>		<u>Metered Rate</u>	
<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
 <b><u>Water Consumption Charge</u></b>			
<b>Residential Customers-Billed Quarterly</b>		<b>Residential Customers-Billed Monthly</b>	
<i>Per 100 Cubic Feet (CCF)</i>		<i>Per 100 Cubic Feet (CCF)</i>	
First 420 CCF	\$4.234	First 140 CCF	\$4.234
Over 420 CCF	\$3.679	Over 140 CCF	\$3.679
<i>Per 1000 Gallons (TG)</i>		<i>Per 1000 Gallons (TG)</i>	
First 314 TG	\$5.660	First 105 TG	\$5.660
Over 314 TG	\$4.918	Over 105 TG	\$4.918
<b>Non-Residential Customers-Billed Quarterly</b>		<b>Non-Residential Customers-Billed Monthly</b>	
<i>Per 100 Cubic Feet (CCF)</i>		<i>Per 100 Cubic Feet (CCF)</i>	
First 420 CCF	\$4.234	First 140 CCF	\$4.234
Over 420 CCF	\$2.585	Over 140 CCF	\$2.585
<i>Per 1000 Gallons (TG)</i>		<i>Per 1000 Gallons (TG)</i>	
First 314 TG	\$5.660	First 105 TG	\$5.660
Over 314 TG	\$3.456	Over 105 TG	\$3.456
 <b><u>Private Fire Annual Charges</u></b>			
<u>Service Size</u>		<u>Greenwich Annual</u>	<u>Mystic Annual</u>
2"		\$96.50	\$134.75
4"		\$385.74	\$539.36
6"		\$868.25	\$1,213.47
8"		\$1,543.49	\$2,157.26
10"		\$2,411.74	\$3,370.53
12"		\$3,472.73	\$4,853.67
Private Hydrant		\$1,143.69	\$1,213.47
 <b><u>Public Fire Annual Charges</u></b>			
Annual Charge per Inch Foot of Mains		\$0.07706	\$0.09242
Company Owned Hydrant Charge		\$222.00	\$222.00



Schedule of Approved Rates (issued and effective February 7, 2014 per docket 13-02-14, 13-02-20 and 13-01-11)

<b>Flat Rate Service</b>	
<b><u>Quarterly Minimum Charge</u></b>	
Includes one sink, one water closet, one bathtub or stall shower, and one wash bowl.	<b><u>Quarterly</u></b> \$96.40
<b><u>Additional Fixtures</u></b>	
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
<b><u>Outside Fixtures</u></b>	
First faucet, sillcock, or yard hydrant; on lots 50' in frontage or less	\$24.25
For lots in excess of 50' frontage for each additional 10' or part thereof	\$3.91
For each additional faucet, sillcock, or yard hydrant	\$5.36
<b><u>Monthly</u></b>	
Ball Pond Customers	\$54.28
Birchwood Customers (unmetered) <sup>1</sup>	\$54.28
Meckauer Customers (unmetered) <sup>2</sup>	\$43.42
Dunham Pond Customers (unmetered) <sup>2</sup>	\$43.42
Dean Heights Tax District (unmetered) <sup>3</sup>	\$46.28
Indian Fields Water System Customers (unmetered) <sup>2</sup>	\$42.63
Valley View Customers (unmetered) <sup>2</sup>	\$43.42
<b><u>Quarterly</u></b>	
Greenridge Tax District (unmetered) <sup>3</sup>	\$127.89
Candlewood Terrace - Carmen Hill (unmetered) <sup>3</sup>	\$127.89
Forest Hills Estates, Inc. (unmetered) <sup>3</sup>	\$127.89
<b><u>Surcharges</u></b>	
<b><u>Quarterly</u></b>	
Greenridge Tax District - Mortgage Pay-down	\$40.50
Greenridge Tax District - Twenty-year Capital Expenditure	\$75.00
Candlewood Terrace - Carmen Hill Orchards	\$25.00
<sup>1</sup> Upon metering, customers will be charged Southern Division rates	
<sup>2</sup> Upon metering, customers will be charged Eastern Division rates	
<sup>3</sup> Upon metering, customers will be charged Eastern Division (United) rates	



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

Sales for Resale	
<u>Sales for Resale to United Water Westchester Inc.</u>	
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	
<u>Size of Meter</u>	<u>Service Charge Per Month</u>
6"	\$644.60
8"	\$1,031.37
10"	\$1,482.58
16"	\$3,674.22



**AQUARION**  
*Water Company*

*Stewards of the Environment*

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

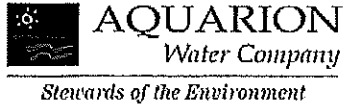
**Economic Development (All Divisions)**

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.

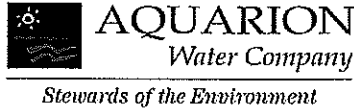
Both the volumetric and fire incentive charges will be subject to periodic effects of a general rate increase and/or Construction Work in Progress surcharge.



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

<b>Miscellaneous Charges (All Divisions)</b>		
<b><u>Tapping Fees (mains greater than 10 yrs old)</u></b>		
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
<b><u>Tapping Fees (mains less than 10 yrs old)</u></b>		
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
<p>\$75 charge assessed for job sites not prepared in accordance with specifications within 1/2 hour of the tap/service connection appointment time.</p>		
<b><u>Tap Shut-Off</u></b>		
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
<b><u>Service Calls</u></b>		
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
<b><u>Turning on Service at Curb Box</u></b>		
Normal Hours		\$72.00
Outside Normal Hours		\$129.00
<b><u>Turning on Service at Main by Excavation</u></b>		
(which had been terminated due to non-payment of water services)		
Cost of labor, material and equipment with damage claim additives applied.		
<b><u>Fire Flow Test</u></b>		
Normal Hours		\$377.00
Outside Normal Hours		\$493.00
<b><u>Backflow Prevention Device Test</u></b>		
Fee for collection at customer premise		\$50.00
Fee if billed		\$55.00
Fee for 9 or more devices		\$45.00
<b><u>Tank Truck Sales</u></b>		
Per load		\$51.00
Per load (within the former United Water service territory)		\$85.00





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

<b>Miscellaneous Charges (All Divisions)</b>	
<b><u>Meter Vault Charges</u></b>	
Customer requests outside vault at time of installing meter (5/8", 3/4", 1") for new account. Meter pit provided by customer.	\$225.00
Customer requests moving existing meter to outside vault installing meter (5/8", 3/4", 1") for new account. Meter pit provided by customer.	\$1,050.00
Vaults for other size meters by customer request.	by estimate
<b><u>Repair or Replacement of Company Meters</u></b> (due to customer negligence)	
Cost of labor, equipment and materials used with appropriate overheads applied.	
<b><u>Hydrant Rig Charge</u></b>	
\$20.00 per rig per calendar day, plus \$2,000 deposit required per rig., plus all meter usage	
<b><u>Return Check Charge</u></b>	\$25.00
<b><u>Collection Fees</u></b>	
Collections at Customer Premise	\$45.00
Assessor's Fee	\$25.00
Onsite Inspection	\$25.00
Letter Series	\$10.00
Lien Filing/Release	\$53.00
Late Payment Fee	1 1/2% per month on the outstanding balance
Manual Meter Reading Fee	\$25.00
<b><u>Missed Appointment Fee</u></b>	\$57.00
<b><u>Theft of Service Fee</u></b>	\$500.00
<b><u>Testing and repairing fire meters</u></b>	
Cost of labor, equipment and material used with appropriate overheads applied.	
<b><u>Service of company employees, inspectors, etc (on non-company work)</u></b>	
Cost of labor, equipment and material used with appropriate overheads applied.	
<b><u>Material purchases</u></b>	
Material cost with appropriate overheads applied.	
<b><u>Repair/cleaning of curb box (due to customer negligence)</u></b>	
Cost of labor, equipment and material used with appropriate overheads applied.	

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- Q.) DPH-27: After Aquarion has inspected and done its due diligence on the Cedarhurst water system, provide an estimate of the monthly cost to provide water service and operate the Cedarhurst water system as described in Interrogatory DPH-25 and the proposed monthly rate that Aquarion would charge the current customers of the Cedarhurst water system in Aquarion were ordered to acquire the system.
- A.) DPH-27: Please refer page 9 of DPH-21 Attachment 1 for the calculation of the proposed monthly charge to the Cedarhurst customers based on the Company's current tariff pages and the necessary investment for the system.
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- Q.) EN-18: (CAPITAL IMPROVEMENTS) After Aquarion has inspected and done its due diligence on the Cedarhurst water system, if Aquarion is selected to own and operate the Cedarhurst water system, will Aquarion operated it as a satellite water system or will it be interconnected to the Aquarion water system by a main extension. Provide the estimated cost(s) associated with the operation and maintenance of the Cedarhurst water system by each option.
- A.) EN-18: Aquarion Water Company would operate the system as a stand alone satellite system. Refer to Page 6 of DPH-21 Attachment 1 for the Water System Assessment and Improvement Plan prepared by Aquarion Water Company dated February 17, 2016 for the costs to operate the system as a satellite system. The annual operating and maintenance cost is approximately \$16,700.
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- Q.) EN-19: (CAPITAL IMPROVEMENTS) After Aquarion has inspected and done its due diligence on the Cedarhurst water system, provide a list of capital improvements that will be needed to the Cedarhurst water system within the next five years. In addition, provide the following information:
- a. Identify the capital improvements, date(s) of completion and cost estimates.
  - b. Identify which of the capital improvements are short-term or long term capital improvements to the Cedarhurst water system.
- A.) EN-19: Refer to Page 7 of DPH-21 Attachment 1 for the Water System Assessment and Improvement Plan prepared by Aquarion Water Company dated February 15, 2016 for the list of capital improvements.
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- Q.) RA-8: (RATES) After Aquarion has inspected and done its due diligence on the Cedarhurst water system, provide the base rate structure (before surcharge) that Aquarion would charge the Cedarhurst customers if it is required to involuntarily acquire the Cedarhurst water system. Include unmetered and metered rates.
- A.) RA-8: As per the decision in Docket 13-02-20, all newly acquired systems will be billed at the Company's Eastern Division rates, therefore, the Cedarhurst customers would be assessed the Company's Eastern Division monthly flat rate of \$54.28 similar to Ball Pond. Upon the installation of metering, the Company's Eastern Division rates will be applicable to the Cedarhurst customers. Please refer to DPH-26 Attachment 1 for the Company's tariff pages.
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Q.) RA-9: (RATES) In reference to the responses to interrogatories EN-18 and EN-19, and post inspection, provide the following information:

- a. Provide a rate surcharge and revenue requirement over a 20, 25 and 40 year recovery period. Calculate the cost recovery at 100%, 75%, 60% and 50% of the costs over the specified time periods.
- b. Provide a breakdown between the Water Infrastructure and Conservation Adjustment (WICA) eligible and non-WICA eligible projects for any capital improvement. Indicate how these improvements would tie into the proposed surcharge in (a) above.

A.) RA-9:

- a. Refer to Page 9 of DPH-21 Attachment 1 for the Water System Assessment and Improvement Plan prepared by Aquarion Water Company dated February 17, 2016 for the calculation of the rate surcharge for recovery of the cost of capital improvements and operating and maintenance costs to operate the system as a satellite system. The total cost of service (revenue requirement) is based on revenues generated over the composite life of the asset categories (42 years as per the depreciation rates authorized in docket 07-05-19 for the asset categories). Refer to RA-9 Attachment 1 for the detail calculation of the revenue requirement.

The Company calculated the surcharge for a 20, 25 and 40-year period and at a cost recovery of 100%, 75%, 60% and 50% over these specified time periods. Based on the calculations presented in DPH-21 Attachment 1, Aquarion would propose a surcharge of \$50 per month per customer for 40 years.

- b. The Company included all costs associated with running the Cedarhurst system and the needed capital improvements into the surcharge calculation. If the Departments determine the Cedarhurst customers will not receive a surcharge for the full cost recovery of the needed improvements, the Company reserves the right to include any WICA eligible projects in future WICA proceedings.
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Ref.	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10
Total Plant Investment	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400
Accumulated Depreciation	(12,636)	(37,908)	(63,180)	(88,452)	(113,724)	(138,995)	(164,267)	(189,539)	(214,811)	(240,083)
Deferred Taxes <sup>(1)</sup>	(2,874)	(8,623)	(14,371)	(20,120)	(25,868)	(31,616)	(37,365)	(43,113)	(48,862)	(54,610)
Rate Base	\$ 1,026,890	\$ 995,869	\$ 964,849	\$ 933,829	\$ 902,808	\$ 871,788	\$ 840,768	\$ 809,747	\$ 778,727	\$ 747,707
Rate of Return	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Required Return	\$ 76,980	\$ 74,655	\$ 72,330	\$ 70,004	\$ 67,679	\$ 65,353	\$ 63,028	\$ 60,702	\$ 58,377	\$ 56,052
Operating and Maintenance	16,694	16,694	16,694	16,694	16,694	16,694	16,694	16,694	16,694	16,694
Depreciation	12,636	25,272	25,272	25,272	25,272	25,272	25,272	25,272	25,272	25,272
Property Taxes	22,924	21,717	19,304	16,891	14,478	12,065	9,652	7,239	7,239	7,239
Income Taxes	35,721	34,642	33,563	32,484	31,405	30,326	29,247	28,168	27,089	26,010
Total Annual Revenue Requirement	\$ 164,956	\$ 172,981	\$ 167,163	\$ 161,346	\$ 155,528	\$ 149,710	\$ 143,893	\$ 138,075	\$ 134,671	\$ 131,266
Flat Rate Revenues (Annually)	\$ 651.36	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073

(1) Deferred taxes are calculated by taking the difference between book (2.42%) and tax depreciation (4.0%) rates multiplied by statutory Federal Tax rate of 35%.

**Capital Structure Authorized in DN 13-02-20**

	(a) Weighted Cost	(b) Tax Multiplier	(c) Pre tax Cost	(d) Tax Gross Up Col (c) - Col (a)
Debt (Short Term)	0.01%	1.000	0.01%	0.00%
Debt (Long Term)	2.53%	1.000	2.53%	0.00%
Equity	4.96%	1.701	8.44%	3.48%
	7.50%		10.98%	3.48%

**Property Tax Calculation over the life of the asset**

	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8-93
Direct Plant Costs	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400
Depreciation Factor	95%	90%	80%	70%	60%	50%	40%	30%
Net Depreciated Value	\$ 990,280	\$ 938,160	\$ 833,920	\$ 729,680	\$ 625,440	\$ 521,200	\$ 416,960	\$ 312,720
70%								
Assessed Value	\$ 693,196	\$ 656,712	\$ 583,744	\$ 510,776	\$ 437,808	\$ 364,840	\$ 291,872	\$ 218,904
Mill Rate (Newtown)	33.07	33.07	33.07	33.07	33.07	33.07	33.07	33.07
Property Tax	\$ 22,924	\$ 21,717	\$ 19,304	\$ 16,891	\$ 14,478	\$ 12,065	\$ 9,652	\$ 7,239

Ref.	Y11	Y12	Y13	Y14	Y15	Y16	Y17	Y18	Y19
Total Plant Investment	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	\$ 1,042,400
Accumulated Depreciation	(265,355)	(290,627)	(315,899)	(341,171)	(366,443)	(391,714)	(416,986)	(442,258)	(467,530)
Deferred Taxes <sup>(1)</sup>	(60,359)	(66,107)	(71,855)	(77,604)	(83,352)	(89,101)	(94,849)	(100,598)	(106,346)
Rate Base	\$ 716,686	\$ 685,666	\$ 654,646	\$ 623,625	\$ 592,605	\$ 561,585	\$ 530,564	\$ 499,544	\$ 468,524
Rate of Return	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
Required Return	\$ 53,726	\$ 51,401	\$ 49,075	\$ 46,750	\$ 44,424	\$ 42,099	\$ 39,774	\$ 37,448	\$ 35,123
Operating and Maintenance	16,694	16,694	16,694	16,694	16,694	16,694	16,694	16,694	16,694
Depreciation	25,272	25,272	25,272	25,272	25,272	25,272	25,272	25,272	25,272
Property Taxes	7,239	7,239	7,239	7,239	7,239	7,239	7,239	7,239	7,239
Income Taxes	24,931	23,852	22,773	21,693	20,614	19,535	18,456	17,377	16,298
Total Annual Revenue Requirement	\$ 127,862	\$ 124,457	\$ 121,053	\$ 117,648	\$ 114,244	\$ 110,839	\$ 107,435	\$ 104,030	\$ 100,626
Flat Rate Revenues (Annually)	\$ 651.36	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073	\$ 11,073

Direct Plant Costs	\$ 311	\$ 314	\$ 316	\$ 343	Total
Depreciation Rate	2.85%	5.34%	2.10%	1.60%	
Depreciation Expense	\$ 2,993	\$ 10,146	\$ 735	\$ 11,398	\$ 25,272
Depreciable Life	35.1	18.7	47.6	62.5	
			Depreciation Composite Rate	2.42%	
			Book Life	41.25	







	Ref.	Y40	Y41	Y42	Cumulative
Total Plant Investment		\$ 1,042,400	\$ 1,042,400	\$ 1,042,400	
Accumulated Depreciation		(998,240)	(1,023,512)	(1,042,400)	
Deferred Taxes <sup>(1)</sup>		(19,879)	(11,033)	(2,188)	
Rate Base		\$ 24,281	\$ 7,855	\$ (2,188)	
Rate of Return	DN 13-02-03	7.50%	7.50%	7.50%	
Required Return		\$ 1,820	\$ 589	\$ (164)	\$ 1,383,911
Operating and Maintenance		16,694	16,694	16,694	701,148
Depreciation	Table	25,272	25,272	18,888	1,042,400
Property Taxes	Table	7,239	7,239	7,239	370,403
Income Taxes	3.48%	845	273	(76)	642,179
Total Annual Revenue Requirement		\$ 51,870	\$ 50,067	\$ 42,581	\$ 4,140,041
Flat Rate Revenues (Annually)	\$ 651.36	\$ 11,073	\$ 11,073	\$ 11,073	\$ 455,071