

**STATE OF NEW HAMPSHIRE  
BEFORE THE  
PUBLIC UTILITIES COMMISSION**

**AQUARION WATER COMPANY OF NEW HAMPSHIRE  
DOCKET NO. DW 08-098**

**DIRECT TESTIMONY  
OF  
LARRY L. BINGAMAN**

August 27, 2008

1 Q. Please state your name and business address.

2 A. My name is Larry L. Bingaman and my business address is 900 Main Street,  
3 Hingham, Massachusetts, 02043.

4

5 I. **PROFESSIONAL BACKGROUND**

6 Q. By whom are you employed and in what capacity?

7 A. I am the Senior Vice President in charge of operations for Aquarion Water  
8 Company of New Hampshire and Massachusetts ("Aquarion" or the "Company").

9

10 Q. Please describe your educational background.

11 A. I have a Bachelor of Science Degree in Business Administration from California  
12 State University at Long Beach and an Executive Master of Business  
13 Administration Degree from the University of New Haven (Connecticut).

14

15 Q. Please describe your business and professional backgrounds.

16 A. On April 1, 2004, I was appointed Senior Vice President of Aquarion Water  
17 Company of New Hampshire and Massachusetts. Prior to this appointment, from  
18 April 2000 to April 2004, I served as Senior Vice President in charge of  
19 Corporate Relations and was the Corporate Secretary, at the parent company,  
20 Aquarion Company, as well as a Director of the parent company and its  
21 subsidiary boards. From 1993 to 2000, I served as Vice President, Corporate  
22 Relations & Secretary of Aquarion Company and its water company subsidiaries.  
23 I joined Aquarion Company in June 1990 as Vice President of Marketing and  
24 Communications after serving in human resources, communications, government

1 relations and management positions of increasing responsibility at Texaco, United  
2 Technologies and its Sikorsky Aircraft subsidiary.

3  
4 **Q.** Have you previously testified before the New Hampshire Public Utility  
5 Commission (the "Commission") or any other regulatory commission?

6 **A.** I have testified in New Hampshire, before the New Hampshire Public Utilities  
7 Commission on behalf of Aquarion's New Hampshire public water utility on rate  
8 matters. I have also testified in Massachusetts before the Massachusetts  
9 Department of Public Utilities and previously, on occasion, testified before the  
10 Connecticut Department of Public Utility Control.

11  
12 **Q.** Are you familiar with the facilities, operations and capital investments of  
13 Aquarion Water Company of New Hampshire?

14 **A.** Yes, I regularly review operational and financial reports prepared for internal use  
15 and for submission to regulatory agencies and take action as appropriate to ensure  
16 the proper level of service to the Company's customers. Additionally, my  
17 responsibilities include providing overall direction of the Company and daily  
18 assistance, as needed, to the Company's Operations Manager. Maintaining  
19 regular contact with the management team, including periodic site visits and  
20 regular communication, provides me close and continued familiarity with the  
21 Company's operations.

22  
23 **II. SUMMARY OF TESTIMONY**

24 **Q.** What is the purpose of your testimony?

1     **A.**     My testimony will provide an overview of Aquarion Water Company of New  
2             Hampshire's operations, summarize the capital improvements that the Company  
3             has made since its last rate case, discuss the size of the Company's requested rate  
4             increase and its impact on customers, discuss the Company's efforts at cost  
5             control, propose a water infrastructure and conservation adjustment (WICA)  
6             surcharge, propose a System Development Charge (SDC), discuss a proposal to  
7             implement conservation rates, propose a water balance conservation program,  
8             discuss the issues addressed in the Company's last rate order, and provide an  
9             overview of Aquarion's commitment to quality of service.

10  
11    **Q.**     Please describe briefly the other testimony offered by the Company in support of  
12             its requested rate increase.

13    **A.**     In addition to my testimony, the Company is also submitting testimony from  
14             Linda Discepolo, the Company's Director of Rates and Regulation regarding the  
15             pro forma operating and maintenance adjustments, revenue and rate-related  
16             exhibits and rate base. Ms. Discepolo will also testify as to the Company's  
17             capitalization ratios and overall cost of capital. Troy Dixon, Manager of  
18             Regulatory Compliance, will provide testimony related to the development of test  
19             year and pro forma operating revenues along with rate design. In addition, the  
20             Company has retained the services of the Floyd Browne Group to perform a  
21             depreciation study for this rate application. Jay W. Shutt of Floyd Browne will  
22             testify and provide exhibits as to the methodology and approach behind his  
23             findings.

1

2 **III. OVERVIEW OF THE COMPANY**

3 **Q.** Please provide an overview of Aquarion Water Company of New Hampshire.

4 **A.** Aquarion Water Company of New Hampshire, with its general office located in  
5 Hampton, New Hampshire, is a wholly-owned subsidiary of Aquarion Water  
6 Company, which in turn is a wholly-owned subsidiary of Aquarion Company.  
7 The Company was organized and incorporated on August 14, 1889 under Chapter  
8 247, Laws of 1889, of the New Hampshire Legislature. Water service to the first  
9 customers commenced on July 4, 1907. Since that time, the Company has  
10 continued to grow and currently provides water service to an approximate area of  
11 31 square miles. The Company serves approximately 8,770 customers in the  
12 Towns of Hampton and North Hampton and in the Rye Beach and Jenness Beach  
13 Precincts in the Town of Rye along the New Hampshire seacoast. The water  
14 system is hydraulically linked and designed to serve all three towns rather than  
15 three independent systems that service each town separately. Approximately,  
16 76% of the customers are in Hampton. There are few major industries in these  
17 seacoast towns. In the summer, the population increases and about 1,000 seasonal  
18 customers have their meters installed in the spring and summer and removed in  
19 the fall.

20 As of December 31, 2007, there were approximately 137 miles of main in the  
21 system. All meters and service connections are owned by the Company. The  
22 Company owns the land on which most of its structures are located. However,  
23 some source of supply land is leased through a long term lease agreement (Well

1 No. 14 in North Hampton and Well No. 16 in Stratham). Other parcels are held  
2 through easements. The administrative offices are also leased in Hampton.

3 The water supply for the Company is obtained from a total of 17 ground water  
4 wells, of which 10 are gravel packed wells in unconsolidated material (Wells No.  
5 5 through 12 and 14 and 16) and seven are deep bedrock wells (Wells No. 13A,  
6 13B, 17, 18, 19, 20 and 21). All wells are controlled by the Company's  
7 computerized Supervisory Control and Data Acquisition (SCADA) system.

8 During 2007, the average daily demand was 2.43 million gallons per day (MGD).

9 The maximum delivery record was set on August 4, 2007 when the demand was  
10 4.79 MG (million gallons). In 2007, there were 871 MG of water produced, of  
11 which 686 MG of water were sold, 13 MG were used for non-revenue producing  
12 purposes and 172 MG of water were classified as unaccounted. Consensus yield  
13 is 5.07 MGD.

14 All chemical treatment (principally chlorine for disinfection, potassium hydroxide  
15 at some wells for pH enhancement and sodium hexametaphosphate for corrosion  
16 control) of the ground well supplies is handled at each well station except Wells  
17 12, 13A, 13B, 16, 17, 18 and 19, for which treatment occurs at the new  
18 Winnacunnet Road treatment facility. The distribution system has three service  
19 gradients and four storage tanks.

20 The main service gradient serves the towns of Hampton and North Hampton and  
21 the southern portion of the Town of Rye. This gradient is controlled by the Exeter  
22 Road elevated tank (0.750 MG). The Mill Road Standpipe (0.315 MG), also on  
23 this gradient, is a pumped storage facility. A new storage tank (1.0MG) will

1 replace this tank and is expected to be in service the last quarter of 2008. The  
2 Hampton Beach Service gradient serves the Hampton Beach area, which is  
3 controlled by the Glade Path elevated tank (0.500 MG). This gradient is supplied  
4 by the Main Service gradient through the Tide Mill Road and the Kings Highway  
5 pressure reducing valve (PRV) stations, which are metered. The Jenness Beach  
6 Service gradient serves the Rye portion of the system and is controlled by the  
7 Jenness Beach Tank (0.500 MG). This gradient is supplied by the Main Service  
8 gradient through the Maple Avenue and the Willow Street PRV Stations, which  
9 are fully metered. Both PRV stations operate on pressure differentials.

10 All of the above tanks, pump stations, PRV's and chemical feed equipment are  
11 monitored and, all except the PRV's and some chemical feed equipment, are  
12 controlled by the SCADA system.

13  
14 **IV. OVERVIEW OF REQUEST FOR RATE RELIEF**

15 **A. Summary of Request for Rate Increase**

16 **Q.** Please summarize the Company's request for rate relief that is the subject of this  
17 proceeding.

18 **A.** The Company is seeking an increase in water revenues of \$1,056,070, or an  
19 overall 21.08% increase. Of this increase, approximately 4.85% relates to the  
20 Hampton Beach project for which a step increase was authorized in 2006, but the  
21 Company chose not to file an application. The customers have saved over  
22 \$400,000 by virtue of the Company's decision to delay implementing this  
23 increase.

1 As proposed, a typical residential customer's water bill using 67,000 gallons of  
2 water per year would increase \$0.21 per day from \$1.09 to \$1.30, or an increase  
3 of approximately 18.9%; on an annual basis that typical residential customer's  
4 water bill would increase from the current \$398 to \$473, or less than one cent per  
5 gallon delivered. Even with the proposed increase, the Company believes that the  
6 water and water service it provides remain an excellent value relative to other  
7 common household expenses the average family incurs.

8  
9 The Company's request for rate relief includes a step increase to account for its  
10 \$1.5 million rate base investment to replace the Mill Road Standpipe that  
11 originally was constructed in 1914. The new tank, with a storage capacity of 1.0  
12 MG, replaces the 0.315 MG Mill Road Standpipe and is constructed on the same  
13 site. This increases the storage capacity of the system while providing additional  
14 supply for fire protection. The New Hampshire Department of Environmental  
15 Services ("DES") recommended increasing storage in its January 6, 2004 letter  
16 that approved lifting a moratorium on new connections in the Hampton system.  
17 Additionally, the Company's engineering consultants, Tata & Howard, noted in  
18 the March 2007 Integrated Water Resource Plan prepared for the Company that  
19 the Company's system would experience a storage deficit of about 0.84 MG by  
20 2025. The new tank will address that deficit, comply with the DES  
21 recommendation, improve fire protection in the system and provide additional  
22 storage to help meet peak demands.



1 The new storage tank is scheduled to be placed into service in the last quarter of  
2 2008, very shortly after the filing of this rate application. Due to the size of this  
3 project, in relation to the Company's rate base, the Company is requesting a step  
4 increase on this investment. The computation of revenue requirements for this  
5 project can be found on **Schedule 6**. By the Commission approving a step  
6 increase as part of this application, the need for another rate case immediately  
7 following this one can be avoided.

8

9 **Q.** Why did the Company delay implementing the step increase for the Hampton  
10 Beach main replacement project in 2006?

11 **A.** When the project was completed, the Company was going through a particularly  
12 busy period in New Hampshire and generally given the change in ownership to  
13 Macquarie and other matters that required management's attention. We felt that,  
14 in addition to allowing management to focus on these other issues, delaying the  
15 increase was one way that the Company could demonstrate its commitment to its  
16 customers. The Company believes that that commitment has also been  
17 demonstrated by its continued investment in the system and the results of its 2007  
18 customer satisfaction survey, which are discussed later in my testimony.

19

20 **B. Reasons for Need for Rate Relief**

21

22 **Q.** What are the primary drivers behind the Company's need for rate relief?

1    **A.**    This rate application is driven primarily by the investments in source of supply  
2           and water utility infrastructure, such as the replacement of aging and undersized  
3           transmission and distribution mains, meters, services and hydrants along with  
4           other improvements that have been made since the Company file for its last rate  
5           increase in 2005. These investments have improved service reliability and quality  
6           as well as increased water supply, which is critical for the Company. The  
7           Company has increased its safe daily yield since 2003 by 0.5 MG, or 21% of its  
8           average daily production. The rate case is also necessitated by the related  
9           depreciation expense on those investments, as well as a change in depreciation  
10          rates. In addition, increased technology costs, higher wages and benefits,  
11          increased power costs and increased corporate insurance charges have all  
12          adversely affected the Company's expense levels since the last rate case. At the  
13          same time, increased revenues and lower corporate charges since 2005 have  
14          somewhat mitigated the above cost increases.

15  
16          The Company has sought to control its operating, maintenance and other expenses  
17          as much as possible. Total pro forma operating and maintenance expenses of  
18          \$2,576,464 proposed in this application are \$20,531 higher, or only 0.8% more  
19          than the amount expended by the Company for the 12 month period ended  
20          December 31, 2002, over six years ago. Although operating expenses have risen  
21          dramatically since 2002 for such expenditures as electric power, gasoline, health  
22          and liability insurances and wages, and the general effects of inflation have  
23          affected most of the Company's expenses, the Company has continued its efforts

1 to control operating and maintenance expenses by reducing management and  
2 workforce levels in order to operate as efficiently as possible. In 2002, when  
3 Aquarion took over operation of the Company, there were 16 full time employees  
4 in New Hampshire, versus the equivalent of 12 current employees. The cost for  
5 those four additional employees plus benefits would be at least \$300,000 today on  
6 an annual basis.

7  
8 **Q.** Mr. Bingaman, please provide additional detail regarding the capital expenditures  
9 that have led to the Company's filing for an increase in water rates.

10 **A.** Since the Company's last rate increase in 2005, approximately \$5.6M has been  
11 added to utility plant. Those additions offset by retirements, increases to  
12 accumulated depreciation, contributions in aid of construction and advances,  
13 deferred taxes and other items over the period result in an overall increase in rate  
14 base since the last case of approximately \$3.1M.

15  
16 The \$5.6M in utility plant additions are in the following categories: water mains,  
17 \$3.0M, which includes the \$1.7M cost of the Hampton Beach project; wells and  
18 other water source plant, \$1.1M; meters, services, hydrants and other T&D plant,  
19 \$1.2M; treatment, pumping and other, \$0.3M.

20  
21 **Q.** Please summarize the reasons that the Company undertook these capital  
22 improvements.

1    **A.**    The capital improvements undertaken by the Company since its last rate filing  
2           include both the replacement of the Company's existing infrastructure as well as  
3           new plant additions. For transmission and distribution improvements, which  
4           include the replacement of new mains, these benefits include improved fire flows,  
5           the elimination of dead ends, and the ability of the Company to move water more  
6           efficiently throughout the system. Capital dollars expended on supply have  
7           helped to ensure adequacy of supply, improve water supply reliability and  
8           increase the Company's ability to meet peak day demands. Treatment  
9           expenditures benefit customers through improved water quality and enabling the  
10          Company to meet or exceed state and federal water quality regulations. General  
11          plant additions equip the employee with technology to manage the operations  
12          better. The investments in technology enable the Company's employees to better  
13          monitor system reliability through SCADA and improve customer service and  
14          response time and increase overall operating efficiency using the newly installed  
15          SAP information system.

16

17           **C.    Water Infrastructure and Conservation Adjustment, System**  
18           **Development Charge and Conservation Rate Proposals**

19

20    **Q.**    Are there changes to the water rate structure the Company is seeking as part of its  
21           filing?

22    **A.**    Yes. The Company is proposing that a Water Infrastructure and Conservation  
23           Adjustment Surcharge (WICA) be implemented to assist the Company in

1 systematically replacing its aging infrastructure (generally water transmission and  
2 distribution mains and related appurtenances), in a timely and cost-effective  
3 manner. The WICA, which is similar to the Distribution System Improvement  
4 Charge (DSIC) that has been implemented in a number of states, is intended to  
5 increase system reliability, improve service to the customer, and reduce water lost  
6 due to leakage. It is also intended to extend the time period between rate  
7 applications, while avoiding high percentage rate increases and rate shock for the  
8 customer.

9  
10 **Q.** Please provide the other states that have adopted a similar process.

11 **A.** The DSIC interim rate mechanism has been adopted in a number of other states  
12 including California, Connecticut, Delaware, Illinois, Mississippi, New York,  
13 Ohio and Pennsylvania.

14  
15 **Q.** Has the National Association of Regulatory Commissioners (NARUC) taken a  
16 position in regard to this type of surcharge mechanism?

17 **A.** Yes. On February 24, 1999, NARUC sponsored a resolution whereby they  
18 cosponsored and endorsed the DSIC that was approved by the Pennsylvania  
19 Public Utility Commission and the Pennsylvania legislature as a promising and  
20 unique regulatory approach that encourages the acceleration of needed  
21 remediation of an aging water utility infrastructure.

22  
23 **Q.** How is the WICA surcharge calculated?

1    **A.**    The WICA surcharge is based on capital spending. It is calculated as a  
2           percentage, based on the original cost of completed eligible projects, multiplied  
3           by the last allowed rate of return, grossed up for income taxes, plus associated  
4           depreciation and property tax expense; divided by the total retail water revenues  
5           approved in the most recent filing for the regulated activities of the Company.

6

7    **Q.**    What are the eligible projects?

8    **A.**    The eligible projects that are intended to improve or protect the quality and  
9           reliability of service to customers are as follows:

- 10           • Mains, valves, services, meters and hydrants
- 11           • Main cleaning and re-lining projects
- 12           • Relocations that are non-reimbursable
- 13           • Purchase of leak detection equipment
- 14           • Installation of production meters and pressure reading valves

15

16   **Q.**    Will the Company file with the Commission a report detailing the projects eligible  
17           for the WICA surcharge?

18   **A.**    If a WICA surcharge mechanism is implemented, the Company intends to file an  
19           initial infrastructure assessment report detailing the capital improvement projects  
20           eligible for the surcharge. The assessment would take into account asset  
21           management (break history, size of pipe, material, water quality, soil type, age,  
22           location, and town paving projects), hydraulic improvements and the need for  
23           redundancy. The report would be updated annually, as needed, and filed with the

1 Commission. It would be the Company's intent to work with the Commission on  
2 the form of the report, agree on the contents and detail, and have the Commission  
3 approve the proposed projects listed and the amounts contained in the report that  
4 is filed on an annual basis. The Company understands the use of the WICA is not  
5 an automatic entitlement, but must be fully justified and supported by the annual  
6 report filed by the Company and reviewed by the Commission.

7  
8 **Q.** How would the surcharge be implemented?

9 **A.** The Company would be eligible to file with the Commission on a semi-annual  
10 basis within 45 days of the close of the previous six month period, or by February  
11 15 and August 15, reporting on capital improvement projects eligible for the  
12 WICA surcharge completed and in service in the prior six month period  
13 (December 31 and June 30). The adjustment would be implemented following  
14 review and approval by the Commission within 45 days, ideally through an order  
15 nisi but also after a hearing if that is determined to be necessary in any given year.  
16 The surcharge would be limited to 5% in any 12 month period and capped at 7.5%  
17 in the aggregate before the filing of the next general rate application, at which  
18 time the WICA surcharge would be included in general rates and reset to zero.

19  
20 **Q.** Can you please summarize the Company's position concerning the Water  
21 Infrastructure and Conservation Adjustment?

22 **A.** The Company believes the WICA provides an important mechanism to address  
23 the need to replace certain water system infrastructure. This includes

1 infrastructure that is aged, or in such condition that it is likely to negatively  
2 impact water quality or reliability of service if it is not replaced. We feel it is a  
3 valuable tool to promote investment in infrastructure replacement that will  
4 provide a benefit to our customers' water quality and level of service, mitigate  
5 rate shock, and preserve natural resources by reducing lost and unaccounted for  
6 water. Equally important, it will reduce the frequency of rate cases, which impose  
7 a cost on customers, the Company and the Commission.

8

9 **Q.** Are there other changes in water rates the Company is seeking as part of its  
10 filing?

11 **A.** Yes, the Company is seeking authorization to implement a System Development  
12 Charge (SDC), also called a connection fee, to offset the cost of system  
13 improvements to accommodate new customers in the Company's service areas.  
14 While System Development Charges are more common among municipal water  
15 utilities, we are aware that in Massachusetts there are at least three DPU-regulated  
16 water companies that have received approval to implement a SDC.

17

18 To my knowledge, there are two approaches to calculating a SDC. Both  
19 approaches involve the issue of how to allocate the cost of service between new  
20 customers and existing customers. One approach focuses on the need to build  
21 new capacity. This concept establishes a system of charges that assigns a portion  
22 of the cost of new facilities directly to new customers and has been called the  
23 "incremental" approach.



1

2

The second approach focuses on the capacity of existing infrastructure available to new customers, the cost of which has previously been borne by existing customers, but which is really necessitated by anticipated growth in the system. This approach has been called the "buy-in" approach.

6

7

The Company believes that it is more equitable to ask new customers to help pay the cost of these facilities, which to date have been borne by existing customers. Therefore, we are proposing the buy-in approach for the System Development Connection Charge.

10

11

12

13

The Company has identified a need to upsize water mains and related appurtenances to improve service delivery and fire protection, which would benefit existing customers, but also help accommodate growth of new customers. We have assumed standard industry cost estimates for eight-inch and 12-inch mains and used the differential between the two to estimate the cost of increasing the size of the mains and related appurtenances in the system to better serve new customers.

14

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The "buy-in" approach calculation of the System Development Charge results in a charge of \$779 for per connection. The SDC for larger meter sizes have been increased using standard American Water Works Association ratios. Ms.

1 Discepolo will further discuss in her testimony the details of how the proposed  
2 SDC was calculated.

3  
4 **Q.** Does the proposed SDC result in new customers being charged for plant that is  
5 not in yet in service?

6 **A.** No. If the SDC is calculated based on the buy-in approach, it will cover only  
7 facilities that are already constructed and providing service to customers. The  
8 charge is intended to reflect the fact that before new customers can come onto the  
9 Company's system, the system had to be oversized to serve anticipated new  
10 customers. In order to ensure that existing customers are not charged for plant  
11 that would not have been necessary in the absence of future growth, the SDC is  
12 designed to assign a reasonable portion of these costs to new customers when they  
13 come on the system. Such a charge is somewhat lower than an SDC that is based  
14 on the incremental approach, which would also include future plant and  
15 equipment that are expected to be added to serve new customers. An example of  
16 additional investment that would be included under the incremental approach but  
17 not under the buy-in approach is the cost of developing new sources of supply

18  
19 **Q.** Are there other changes in the rate structure the Company is seeking?

20 **A.** Yes. The Company is seeking to implement an inclining block rate to promote  
21 water conservation in its service area. We have been encouraged by the New  
22 Hampshire DES since it lifted the growth moratorium on the Company in January  
23 2004 to implement such a rate structure as a way to help manage demand. The  
24 DES reiterated their position on conservation rates in a March 28, 2007 letter as a

1 follow up to the Company's semi-annual update on supply capacity, storage and  
2 water conservation. In its letter the DES stated:

3 *"At the meeting, the Department suggested that Aquarion more*  
4 *aggressively pursue water efficiency measures. . . . it is advisable for*  
5 *Aquarion to look at more advanced water conservation measures in part*  
6 *to meet future water supply needs. Such measures may include:*

7 *2) Implementing a rate structure that encourages water*  
8 *conservation by increasing the price of a unit volume used that*  
9 *exceeds certain thresholds or by using a seasonal rate structure that*  
10 *discourages excessive water use during the peak summer months."*

11  
12 The DES restated its support of conservation rates in a letter to the Company  
13 dated August 26, 2008. Accordingly, the Company is incorporating in this case a  
14 Conservation Rate Structure of inclining block rates that conforms to the request  
15 of the New Hampshire DES. Mr. Dixon will further address the particulars of the  
16 proposed conservation rate structure.

17  
18 **D. Proposed Changes to Terms and Conditions of Providing Service**

19  
20 **Q.** Is the Company proposing to add any revisions to its tariff aside from the  
21 proposals you have already discussed?

22 **A.** Yes. The Company is proposing to add a Water Balance Plan to its tariff that is  
23 also intended to encourage water conservation. The Company's Massachusetts

1 affiliate has successfully employed a Water Balance Plan program for about six  
2 years. The general goal of the program is to offset increases in water use created  
3 by the addition of new customers (e.g., residential, commercial, and industrial  
4 developments) with decreases in the water use of existing customers through  
5 conservation efforts. The proposed Water Balance Plan would require owners of  
6 new developments that come on to the Company's system to either implement  
7 approved conservation measures or pay a fee that is used to fund conservation  
8 programs that are implemented by the Company.

9 The Water Balance Program would apply to all new and expanded water use  
10 developments that are expected to use 100,000 gallons or more per year with the  
11 exception of: (1) residential developments with only a single service connection  
12 and (2) new and/or expanded water use developments that are expected to require  
13 less than 100,000 gallons per year of water. Applicants will have several options  
14 to comply with the Water Balance Program including:

- 15 • **Applicant-Directed Conservation** – Applicant identifies and implements  
16 water conservation activities. These could include retrofitting public  
17 buildings with low flow toilets and other fixtures to offset the projected usage;  
18 lowering a shallow water main(s) to eliminate “bleeding” the water main in  
19 the winter and thus saving water; installing demand reduction measures, such  
20 as independent irrigation systems, decreasing commercial and industrial  
21 consumptive use; or water audits of significant users
- 22 • **Water Banking** - Applicant provides funding for a Water Bank that will be  
23 used by Aquarion to fund conservation efforts. These efforts could include

1 such activities as: funding commercial and residential water use audits; paying  
2 for the purchase of rain detection sensors on irrigation systems; or funding a  
3 rebate program to encourage installation by customers of low flow appliances,  
4 etc. We have estimated the cost of the Water Banking option would be a one  
5 cost of \$5.20 per gallon of water consumed per day. For example, at the  
6 exclusion limit of 100,000 gallons per year, or 274 gallons per day, the  
7 required funding amount would be \$1,425.

- 8 • **Supplemental Source of Supply** – Applicant identifies and develops a  
9 supplemental source of supply for Aquarion.

10

11 **V. CUSTOMER SERVICE**

12 **Q.** Please provide an overview of the Company's efforts to maintain and improve the  
13 level of customer service it provides.

14 **A.** Aquarion is committed to continuing to provide its customers with high quality  
15 water and water service in the most cost-efficient manner. Consistent with this  
16 mission, since Aquarion's acquisition of Hampton Water Company in 2002, there  
17 has been a significantly increased commitment to improving the water system and  
18 customer service, while trying to carefully control costs.

19

20 The Company's commitment to customer service cascades from the top down. It  
21 is embodied in Aquarion Company's mission statement, is articulated to  
22 employees and customers in Aquarion's stated customer service philosophy and is

1 translated into business strategies and plans to enhance operational efficiency and  
2 increase customer satisfaction.

3  
4 The Company has complied with the request by the Commission and its  
5 customers to maintain a phone system locally in Hampton whereby New  
6 Hampshire customers can call to have their concerns and questions addressed  
7 and/or to schedule appointments. The Company has retained a telephone  
8 notification system to advise customers of planned interruptions of service, which  
9 can also be used for emergency notification regarding an interruption of service or  
10 water quality issues.

11  
12 Aquarion has also taken advantage of technology in order to continue to focus on  
13 improving service levels. Appointments are easily and quickly scheduled during  
14 a customer contact because each customer representative in the Hampton office  
15 has access to an on-line appointment calendar. Field service personnel are  
16 scheduled in two hour windows, are committed to arriving on time and record  
17 their arrival time electronically on each work order.

18  
19 Customer Service Representatives can send copies of invoices or payment  
20 information to customers via e-mail; and customers can also visit our website for  
21 information and are able to contact the Customer Service representatives or me  
22 directly via e-mail. Customers can also enroll in an electronic payment option  
23 that allows customers to view and pay their bills on line.

1  
2 Aquarion is also committed to being involved in the communities in which it  
3 operates. Aquarion strongly encourages its employees to participate in  
4 community events, charitable causes and non profit organizations. The  
5 Company's employees are cognizant of the Company's desire to support the  
6 communities in which it operates and have taken up that challenge by spending  
7 countless hours of their own personal time to support and improve the quality of  
8 life in those communities. Some of the activities our employees have supported  
9 include the Penguin Plunge, the Hampton Road Race, the North Hampton People  
10 Active in Learning, Hazardous Waste Collection days and various Chamber of  
11 Commerce events. Additionally, management has made a special effort to reach  
12 out to municipal officials, especially those in North Hampton, to enhance  
13 communications and work cooperatively.

14  
15 **Q.** Please describe the Company's ongoing efforts to further improve the level of  
16 service it provides to its customers.

17 **A.** In 2006, the Company implemented a plan to further improve our customers'  
18 interactions with the Company. The first category of the plan is Senior  
19 Management Leadership and includes several action steps, such as participation in  
20 a series of facilitated workshops about Aquarion's customer commitment.  
21 Among other things, these workshops provide exercises to identify, prioritize and  
22 create action plans to improve the internal work processes and encourage  
23 employees to work together to create enhanced customer service for customers.

1

2       The second category is Logistics and Internal Communication. The action plan  
3       for logistics includes the systemic review of all processes that were built into the  
4       Company's SAP information system (which I will discuss below) for work flow  
5       to ensure the processes are properly documented and are functioning properly. As  
6       the review continues, several processes will be targeted for enhancement, and  
7       "integrated business processes" – those processes that cross several departmental  
8       lines – will be reviewed for improvement as well.

9

10      The third category of the plan involves training, both initial customer service  
11      training and ongoing workshops. In addition, billing specialists from Connecticut  
12      visit the New Hampshire office on a regular basis to offer continued training on  
13      both the computer system and process change.

14

15      The fourth category of the plan involves standards for service delivery. Specific  
16      standards addressing response time for e-mails and phone calls, along with  
17      standards for extended messages for voicemail and e-mails, are some of the topics  
18      covered under Aquarion's standards. New employees are trained on standards,  
19      and performance appraisals address standard delivery and customer satisfaction.

20

21      Employee recognition is the fifth category of the plan. The Aquarion-wide  
22      bulletin board posting system features "Kudos" letters or comments provided by  
23      customers on their experience with Aquarion employees. Internally, fellow



1 Aquarion employees can thank each other through a Kudos or a People's Choice  
2 award, a recognition program featuring a certificate and ribbon for providing  
3 assistance or information or going above and beyond the call of duty.

4  
5 Lastly, the sixth category of the plan features customer feedback. In addition to  
6 our annual customer survey which provides an abundance of data on customers'  
7 perceptions of their contact with us, senior representatives and customer service  
8 department management review all calls designated in the SAP information  
9 system as "same issue" calls, which means that the customer issue, question or  
10 concern remained unresolved following contact with the Company. Personal  
11 phone calls are placed by Company personnel to solicit the customer's perception  
12 of their interaction with the Company to ensure that unresolved issues are  
13 investigated for a root cause.

14  
15 **Q.** Please describe how the Company tracks customer satisfaction levels.

16 **A.** The Company conducted a customer survey in October 2007 to ensure that we are  
17 achieving positive results in the delivery of service to our customers and  
18 improving the customer experience. The survey conducted by the Center for  
19 Research and Public Policy (CRPP), a recognized leader in developing and  
20 conducting customer service satisfaction surveys, was intended to provide a solid  
21 foundation to enable us to track the success of our efforts to improve customer  
22 service. Copies of the survey's Introduction, Methodology and Highlights are  
23 submitted as **Attachment LLB-1.**

1  
2 The survey design by CRPP was a careful and deliberate process to ensure the  
3 product was a fair, objective and balanced survey. Customers were asked  
4 questions related to rating the Company's water quality, satisfaction with the  
5 Company, perceptions of customer service, rating customer service and field  
6 personnel, customer expectations and public awareness of Aquarion's activities in  
7 the community.

8  
9 In 2007, the CRPP surveyed 400 randomly selected customers in all three New  
10 Hampshire towns we serve, yielding a statistically valid sample. The Customer  
11 Satisfaction Index of 92%, excluding 'don't know' responses, is an average of the  
12 overall customer satisfaction characteristics for three distinct areas: Aquarion as a  
13 company, our office personnel, and our field personnel. According to the Center  
14 for Research and Public Policy, companies with Customer Satisfaction index  
15 figures in the high 80s are considered to be providing excellent customer service.

16  
17 The following chart illustrates the components of the Customer Satisfaction Index  
18 and their corresponding results for 2007.

19

Customer Satisfaction Index (CSI)	92.0%
Aquarion as a Company	82.2%
Aquarion Office Personnel	93.3%
Aquarion Field Personnel	95.4%

1

2 **Q.** Please expand on how the Company has utilized technology to improve customer  
3 service.

4 **A.** In January 2007, the Company's parent company upgraded its management and  
5 customer service information systems by adopting SAP software. It is not  
6 uncommon for a customer calling a utility to have more information about what is  
7 happening in the field than the customer service representative responding to the  
8 phone. The new SAP system allows our field service personnel to use mobile  
9 technology to input real time information concerning what is happening in the  
10 field, which in turn allows the customer service representative in the office to  
11 communicate more effectively about distribution system and customer issues.

12

13 **Q.** Please describe the process undertaken to prepare for the implementation of the  
14 new SAP system.

15 **A.** As start ups of new software systems are implemented, it is typical to see a dip in  
16 performance as field personnel and office staff put into practice what they learned  
17 during formal training. It is expected to see an impact on both wait times on the  
18 phone and call handling times while customer service representatives learn to  
19 maneuver through the system; it is also typical to see an increase in missed field  
20 appointments as well as lower productivity in the field as personnel learn how to  
21 input data and properly close work orders on the mobile computer units. We were  
22 cognizant of the fact that we needed to properly prepare for the system  
23 implementation in order to ensure our service levels, and therefore customer

1 satisfaction, remained high. In preparation for going live with the SAP system,  
2 we worked extensively to ensure that representatives were ready to use the system  
3 as soon as business opened on January 2, 2007. Risk mitigation and contingency  
4 plans were developed for the call processing and billing operations.  
5 Comprehensive training was conducted, and our New Hampshire customer  
6 service representatives attended a minimum of 40 hours learning the various  
7 transactions and screens within SAP. "Sandbox" computers equipped with test  
8 environment data were available for representatives to practice and keep their new  
9 SAP skills fresh for the weeks following their training sessions and prior to  
10 implementation.

11  
12 An SAP mobile expert spent several weeks in the New Hampshire office to  
13 ensure immediate answers to field employee questions. In addition, senior  
14 representatives in Connecticut employed a computer shadowing software  
15 application so the more complicated customer billing adjustment transactions  
16 could be viewed simultaneously in New Hampshire and Connecticut; this training  
17 tool allowed a senior representative in Connecticut to train the New Hampshire  
18 customer service representative in real-time by following the transaction. Daily  
19 debriefing sessions were held before and after business hours with representatives  
20 during the first few weeks of implementation to capture questions and concerns  
21 and to debrief them on overnight fixes and the status of the transition.

22  
23 **Q.** What are the benefits of the new system that customers will realize over time?

1    **A.**    The new SAP system includes a major component dedicated to customer service  
2           called Customer Care and Services (CSS). It includes utility specific functions  
3           for billing, account management, revenue management, device management and  
4           service orders, which are described below:

5

6           **One Stop Shopping**

7           The new SAP system greatly enhances our ability to provide the customer with  
8           “one stop shopping” when contacting the Company. Customers want to have  
9           their issue resolved when they call the first time, assuming a field visit is not  
10          required. SAP allows us to do this by providing a centralized repository of all  
11          relevant information. Customer service representatives have complete access to  
12          current and historical billing data by customer and premise. They also have  
13          complete visibility to the status of field work that impacts that customer. This  
14          includes future work such as periodic meter changes. Customer service  
15          representatives are also able to develop final bills in less than two minutes for  
16          customers who are moving. As a result, the billing information can be provided  
17          while the customer is on the phone. The Company’s previous customer and  
18          billing information system took approximately 12 minutes to perform this  
19          function, and as a result the information many times could not be provided while  
20          the customer was on the phone.

21

22          **Minimal Time on the Phone**

1 The improved organization of information available to the customer service  
2 representatives and the improved speed of the SAP system compared to the  
3 Aquarion legacy system have enabled customer service representatives to answer  
4 questions and process transactions in less time, reducing the time that customers  
5 have to spend on the phone.

6  
7 **Scheduling and Visibility of Field Work**

8 SAP is expected to reduce the number of non productive field visits. For  
9 example, the system will allow customer service representatives to combine  
10 customer requested work with Company generated work such as periodic meter  
11 changes, eliminating a second field visit that would have required the customer to  
12 be present. Also, if follow up work is required, as in the case of restorations, the  
13 scheduling of this work is shown on SAP, and the representative can inform the  
14 customer of the schedule.

15  
16 **Customer Appointments**

17 When a field visit is needed that requires the customer to be present, the SAP  
18 system provides an improved scheduling capability that allows an appointment to  
19 be set that meets the customer's needs. Customer service representatives are able  
20 to review available appointment slots that can be matched to the customer's  
21 availability and can be easily changed if required. In addition, the SAP system  
22 improves the Company's ability to meet scheduled appointments. The  
23 appointment schedule is set up by geographic areas, which increases the

1 productivity of the field workers by reducing travel time and covers our service  
2 area in a more consistent manner.

3  
4 **Mobile Technology**

5 Mobile computer units, called Toughbooks, are used by each field employee to  
6 receive work orders and field service notifications, as well as transmit data  
7 wirelessly back to customer records in the customer database. This technology  
8 allows real-time data to be viewed by both the field and customer service  
9 representatives, reducing the number of calls between the two work groups and  
10 allowing customer service representatives to discuss field activities on a real-time  
11 basis with customers. In addition, the barcode scanners employed by the mobile  
12 users increase the accuracy and streamlines recording of meter serial numbers.

13  
14 **Responding to Customers**

15 With the installation of SAP and its mobile capability with field workers, the  
16 Company's ability to respond to emergencies is greatly improved. For customer  
17 premise emergencies, such as leaks, SAP allows the emergency report to be  
18 dispatched immediately to the field worker. This reduces the time the first  
19 responder takes to get to the emergency and begin corrective action.

20  
21 For system emergencies that are not associated with a particular customer's  
22 premise, the notification of the emergency to the call center can be associated  
23 with a town and is visible to all customer service representatives. Therefore,

1 when other customers call in to inquire about a system emergency, prior calls that  
2 have already been recorded in SAP are available to the representative to respond  
3 to the customer.

4  
5 **Improved Bill Accuracy**

6 During the process of converting to the SAP system, we employed a team of “data  
7 scrubbers” who spent several months improving the quality of customer data.  
8 This included standardization of street names, towns and zip codes, as well as  
9 verification of meters on premises. This will ensure bills are sent to the correct  
10 customer address and the billing information is accurate.

11  
12 **Reporting and Measurement**

13 The installation of SAP also provides enhanced reporting and measurement  
14 capabilities. This will allow us to continuously improve our level of customer  
15 service. A number of performance measurements, such as the number of missed  
16 appointments, were established that assisted us through the SAP start up period.

17 SAP also provides enhanced capabilities with regard to reporting. We are  
18 developing a set of reports to track water consumption that will allow us to  
19 monitor and take action to reduce the rate of unaccounted water. It will allow us,  
20 for example, to identify premises that have water consumption but no established  
21 customer account.

22  
23 **VI. FOLLOW UP ON ISSUES FROM SETTLEMENT IN DW 05-119**



1   **Q.**   As part of the Settlement Agreement approved in DW 05-119, the Company  
2           agreed to file a number of reports and other information with the Commission.  
3           Has the Company submitted this information and the reports?

4   **A.**   In DW 05-119, the Company agreed as follows:

5           1.     The Company agreed to conduct an engineering review of its system and  
6           provide recommendations within nine (9) months on the following subject areas:

7               a.   A review of the overall physical adequacy of the Company's existing  
8               hydrants, including compatibility and interchangeability issues, wet versus dry  
9               hydrants, the need to replace or update older styles, nozzle types, nozzle and  
10              valve opening sizes; and

11             b.   The adequacy of the current hydrant inspection and maintenance program.

12           2.     The Company agreed to provide staff with a copy of each of the following  
13           when completed:

14               a.   Integrated Water Resource Plan;

15               b.   Feasibility Study, Mill Road Treatment Center; and

16               c.   Source of Supply Study

17           3.     The Company agreed to file the following, in accordance with  
18           Commission rules or as otherwise indicated:

19               a.   Form E-17, annual Report of Hydrant Inspection;

20               b.   Form E-22, Report of Proposed Expenditures for Additions, Extensions  
21               and Capital Improvements to Fixed Capital;

22               c.   2007-2008 Capital Improvements Plan, when completed;

23               d.   Five-year Capital Improvements Plan, when completed; and

1 e. Summary of lost water (water produced, water billed, non revenue usage  
2 and lost water) by quarter, to be filed annually in conjunction with the Annual  
3 Report.

4 With regard to the first item, the Company submitted the requested information  
5 on March 23, 2007.

6  
7 With respect to the second item, the Company has provided staff with the  
8 following as listed below:

9 The Integrated Water Resource Plan on April 4, 2007;

10 The Feasibility Study, Mill Road Treatment Center also on April 4, 2007;

11 The Source of Supply Study is contained within the Integrated Resource  
12 Plan.

13 With respect to the third item, the Company has filed Form E-17 annually since  
14 the last rate case. The Company also filed Form E-22 and the 2007-2011 Capital  
15 Improvement Plan (which contained the plan for 2007-08) as well as the  
16 Summary of Lost Water.

17  
18 **Q.** Pages 4 and 5 of the Settlement Agreement in DW 05-119 addressed a number of  
19 issues that the Company indicated it was in the process of resolving or would  
20 resolve subsequent to the Settlement Agreement. Those issues were as follows:

- 21 1. The Company was undertaking a process of computerizing its hydrant  
22 maintenance records and implementing steps to ensure that those records

1 comprehensively reflect the hydrant maintenance program of the  
2 Company.

3 2. The Company indicated it had begun a program of hydrant beautification,  
4 including painting of hydrants and removal of weeds and other vegetation  
5 in the immediate vicinity of the hydrants. Painting was anticipated to be  
6 completed in 2006, and in subsequent years the Company intended to  
7 follow a four-year rotating schedule.

8 3. The Company indicated it planned to continue its efforts to limit growth  
9 around hydrants and that those efforts were being undertaken with the fire  
10 chiefs of the town it serves.

11 4. The Company indicated it planned to continue flushing on an annual basis  
12 with maintenance being provided at that time.

13 5. The Company indicated it planned to provide general hydrant  
14 maintenance, and back pressuring and winterization each fall.

15 6. The Company indicated it planned to discuss matters related to the  
16 operation and maintenance of fire hydrants on a quarterly basis with fire  
17 chiefs and any other interested public officials from the towns in which it  
18 serves.

19 Has the Company addressed these issues, and or implemented plans to begin each  
20 program?

21 A. The Company has responded to each of the above numbered issues. The  
22 Company has either completed the project as described in the settlement or  
23 implemented a plan that calls for action on either a quarterly or annual basis.

1

2 **VII. CONCLUSION**

3 **Q.** Is there anything else you would like to add to your testimony?

4 **A.** Yes. To summarize, this rate application is primarily driven by the capital  
5 investments made to infrastructure to improve system reliability, provide  
6 enhanced fire protection and ensure the water distributed by the Company meets  
7 or is better than state and federal water quality standards.

8

9 In March 2007, Tata and Howard, engineering consultants completed an  
10 Integrated Water Resource Plan (IWRP) for the Company. This Plan, which was  
11 filed with the Commission, helps to identify and prioritize areas in the water  
12 system where additional investment is needed to improve service. The IWRP is a  
13 comprehensive review of the treatment, storage, and distribution components of  
14 the water system. It includes the following components: description and  
15 inventory of the existing water system; population projections, service area  
16 projections, water demand projections; water supply projections and new source  
17 needs; improvements needed to meet 20 or more years usage demands;  
18 recommended system improvements; a map showing infrastructure improvement  
19 components and service area; and documentation and description of costs  
20 associated with the system improvements.

21

22 Management meets monthly with its engineering firm to review current projects  
23 and prioritize new projects that are within the scope of the capital budget.

1

2

Although the Company has experienced increased operating expenses since its last rate case, its efforts to control costs have been quite successful, and that has mitigated the need for rate relief. At the same time as it has continued to increase the efficiency of its operations, the Company has focused on continuing to maintain and improve the level of customer service it provides.

3

4

5

6

7

8

**Q.** Does this conclude your testimony?

9

**A.** Yes, it does.

AFFIDAVIT

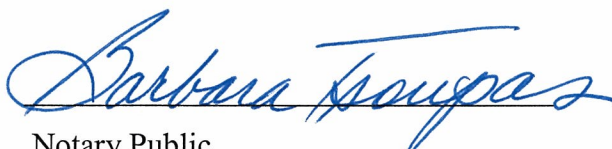
STATE OF NEW HAMPSHIRE PUBLIC UTILITY COMMISSION

LARRY L. BINGAMAN, being first duly sworn, deposes and states:

That he is the Larry L. Bingaman whose direct testimony accompanies this Affidavit, that said direct testimony is a true and accurate statement of his answers to the questions contained herein, and that he adopts those answers as his sworn testimony in this proceeding.

  
LARRY L. BINGAMAN

SWORN TO and SUBSCRIBED before me this 27 day of August.

  
Notary Public

**BARBARA TSOUPAS**  
**NOTARY PUBLIC**  
My Commission Expires July 31, 2009





2007  
CUSTOMER SATISFACTION STUDY  
\*FINAL REPORT\*

*Prepared on behalf of*

Quality Water for Life



AQUARION

*New Hampshire  
November 2007*



## INTRODUCTION

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The Center for Research & Public Policy ("CRPP") is pleased to present the results to a 2007 *Customer Satisfaction Survey* conducted on behalf of Aquarion Water Company ("AWC").

The study included a telephone survey among New Hampshire customers from Aquarion Water Company's Hampton, North Hampton and Rye service areas. Each group is represented proportionally to customer population contribution.

This report summarizes statistics collected from a telephone survey that was administered between October 15 – 20, 2007. The survey is comprised of 400 completed interviews among the three service areas.

The *Customer Satisfaction Survey* included the following areas for investigation:

- Rating water quality;
- Satisfaction with Aquarion Water Company as a company;
- Perceptions of customer service;
- Rating customer service and field personnel;
- Awareness of Aquarion Water Company's activities in the community;
- Customer expectations;
- Public awareness of Aquarion Water Company's activities; and
- Demographics.

Following this introduction, Section II – contains and explains the methodologies employed in completing this *Customer Satisfaction Survey*, the margins for error and the confidence level for the statistics collected.

Section III – contains Highlights made after a careful analysis of the data which is presented in narrative format in the Summary of Findings, Section IV.

Section V – is the Appendix containing copies of the survey instrument utilized, the composite aggregate data and a crosstabulation table.

## METHODOLOGY

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A total of 400 Aquarion Water Company customers from Hampton, North Hampton and Rye, New Hampshire provided complete responses to a telephone survey administered in October of 2007.

The 400 respondents who completed the survey lived within the three specified service areas. Each town contributed to the 400 sample based on its actual proportional contribution to the overall customer base.

Using a list of customers provided by Aquarion Water Company, CRPP developed an *nth* name stratified sample. This sample was used by CRPP researchers to call prospective respondents.

Survey design at CRPP is a careful, deliberative process to ensure fair, objective and balanced surveys. Staff members, with years of survey design experience, edit out any bias. Further, all scales used by CRPP (either numeric, such as one through ten, or wording such as strongly agree, somewhat agree, somewhat disagree or strongly disagree) are balanced evenly. And, placement of questions is carefully determined so that order has minimal impact.

One survey instrument was used to elicit information from all respondents. Skip patterns were developed to further question specific groups of respondents based on certain answers. For example, those respondents not having had contact with Aquarion Water Company personnel could not rate them on such issues as "courtesy."

CRPP achieved an 82% completion rate among the original sample. Completion rates are a critical aspect of any research study. Because one group might be easier to reach than another, it is important that efforts are made to reach all groups to an equal degree. A high completion rate means that a high percentage of the households within the sample were actually contacted, and that the resulting sample is not skewed to one potential audience. This percentage is considered high and can reflect on the level of interest the respondents place on the topic for study.

CRPP used a callback procedure to ensure the randomness of the sample and to reduce non-response bias. When a randomly selected customer was not available during the first telephone contact, additional callbacks were made in order to complete the interview.

All telephone interviews were conducted from CRPP headquarters, located in Trumbull, Connecticut. Research was conducted primarily during the hours of 5:00 p.m. and 9:00 p.m. weekdays and 10:00 a.m. and 4:00 p.m. on weekends. The survey was conducted October 15 – 20, 2007.

All aspects of this project including questionnaire design, sample design, testing and fielding, coding, programming, data entry, editing and analysis were completed by CRPP staff in the Trumbull, Connecticut headquarters.

Statistically, a sample of 400 completed interviews represents an accuracy level of  $\pm 5.0\%$  at the midpoint of a 95 percent confidence level. This level of accuracy pertains to the composite data of "like" questions asked of all respondents. The accuracy level would be lower for questions posed only to respondents, for example, who had contact with Aquarion Water Company personnel. Further, the accuracy level will be lower when viewing the results by town separately.

In theory, a sample of Aquarion Water Company customers will differ no more than  $\pm 5.0\%$  than if all customers were contacted and included in the survey. That is, if random probability sampling procedures were reiterated over and over again, sample results may be expected to approximate the larger population values within plus or minus 5.0% -- 95 out of 100 times.

Readers of this report should note that any survey is analogous to a snapshot in time and results are only reflective of the time period in which the survey was undertaken. Should concerted public relations or information campaigns be undertaken during or shortly after the fielding of the survey, the results contained herein may be expected to change and should be, therefore, carefully interpreted and extrapolated.

Furthermore, it is important to note that all surveys contain some component of "sampling error." Error that is attributable to systematic bias has been significantly reduced by utilizing strict random probability procedures. This sample was strictly random in that selection of each potential customer was an independent event, based on known probabilities.

Each qualified customer had an equal chance for participating in the study. Statistical random error, however, can never be eliminated but may be significantly reduced by increasing sample size.

## HIGHLIGHTS

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The 2007 Customer Satisfaction Index ("CSI") percent derived from the Customer Satisfaction Survey is 92.0% (without don't know responses). This number serves as a benchmark for future tracking studies.

The CSI percent is an average of the overall characteristic ratings for Aquarion Water Company as a company (87.2%), Aquarion Water Company office personnel (93.3%) and Aquarion Water Company field personnel (95.4%). Service organizations strive to attain and maintain numbers in the high eighties.

### ON WATER QUALITY...

- When rating the five features of tap water in their home such as "appearance/clarity," "safe to drink," "water pressure," "smell" and "taste," the highest positive rating was recorded for "water pressure" (92.0%). The tap water feature receiving the lowest positive rating was "taste" (70.3%).
- Importantly, the clear majority of all 2007 respondents surveyed, 91.0%, feel their water has either "improved" (2.5%) or "remained good" (88.5%) over the past year.

### ON RATING AQUARION WATER COMPANY...

- Aquarion Water Company enjoys a strong customer satisfaction level among its New Hampshire residential customers. When rated on 9 different company characteristics, (with "don't know" responses removed from the data) Aquarion Water Company received an overall positive average of 87.2% in 2007.
- The highest positive rating was recorded for "maintaining an adequate supply of water" (94.4%), while the lowest positive rating was recorded for "providing good service and value for the cost of water" (76.3%).

### ON CUSTOMER SERVICE...

- The average positive rating for the 13 customer service personnel characteristics measured (with "don't know" responses removed from the data) is 93.3% in 2007.

- The highest positive ratings were recorded for the following: “friendly greeting” (96.7%) and “demonstrating a willingness to be helpful to you” (96.7%).
- While still impressive, the lowest positive ratings were recorded for “responsiveness or listening carefully to you and then acting” (90.0%) and “providing you with results in a reasonable amount of time” (89.8%).
- Among those having an interaction with a customer service representative, more than three-quarters, 77.8%, reported the “first person” who worked with them was able to find a solution to the purpose for the contact. Another 7.9% suggested the “second person” found a solution to the purpose for the contact.
- The average positive rating for the 11 field service personnel characteristics measured (with “don’t know” responses removed from the data) is 95.4% in 2007.
- The highest positive ratings were recorded for the following: “overall appearance” (100.0%), “arriving on time for the work to be performed” (100.0%), “having proper identification available” (100.0%) and “being courteous to you and treating you with respect” (100.0%).

#### ON AQUARION WATER COMPANY IN THE COMMUNITY...

- Awareness of Aquarion Water Company’s taxpayer status is moderate among New Hampshire customer respondents. When asked, more than two-fifths of all respondents, 44.0%, correctly identified Aquarion Water Company as a taxpayer.
- When asked, nearly two-thirds of all respondents, 60.3%, reported having seen “WaterWatch” enclosed with their bills. Of this group, a majority, 74.7%, reported reading either “all of the newsletter” (20.7%) or “some of the newsletter” (53.9%).
- When asked to rate the level of trust they have in Aquarion Water Company with regard to the accuracy and honesty of communication materials, three-quarters of all respondents, 74.8%, reported having either a “great deal” (41.5%) or “some trust” (33.3%) in Aquarion communication and materials.

#### ON EXPECTATIONS...

- In declining order, 2007 New Hampshire customers reported their top five expectations to be: “good quality/clean water,” “nothing specific,” “low rates,” “adequate supply of water” and “prompt response to problems.”

- Importantly, the percentage of respondents who reported Aquarion Water Company is meeting and exceeding their expectations either “all the time” or “most of the time” is 88.8% in 2007.
- Clear majorities of respondents reported “nothing/satisfied” when asked to indicate any “safety & quality concerns” (83.5%) or “service comments” (94.5%) with regard to Aquarion Water Company.

#### ON PUBLIC AWARENESS...

- Among those respondents reporting current or future internet access (67.5%), more than two-fifths are reporting a willingness to use the Aquarion Water Company website for the following services:
  - Access water quality information (49.3% willing)
  - Access customer service information (48.1% willing)
  - Access information on rates (45.6% willing)
  - Access payment information (44.8% willing)
  - Access educational materials (41.1% willing)

#### ON AQUARION WATER COMPANY ISSUES...

- When asked to consider that 1 gallon of water from Aquarion Water Company costs less than one penny, nearly three-quarters of all 2007 respondents, 73.5%, reported water costs from Aquarion Water Company are either “very reasonable” (26.3%) or “somewhat reasonable” (47.3%), while another 14.8% suggested the costs are “somewhat unreasonable” (11.3%) or “not at all reasonable” (3.5%).
- When discussing their current relationship with Aquarion Water Company, the large majority of all respondents, 92.8%, reported to be either a “satisfied customer” (74.0%), a “loyal customer” (15.3%) or an “advocate for Aquarion Water Company” (3.5%).
- Finally, two-fifths of all respondents reported to be either “very willing” or “somewhat willing” to pay higher water rates for the following: “improve water quality” (45.5%), “replace aging infrastructure to maintain reliability and integrity of the distribution system” (44.5%) and “improve security of water sources and treatment facilities” (41.0%).