

**STATE OF NEW HAMPSHIRE  
PUBLIC UTILITIES COMMISSION**

**DW 08-098**

**In the Matter of:  
Aquarion Water Co.  
Permanent Rate Proceeding**

**Direct Testimony**

**of**

**Mark A. Naylor**

**June 9, 2009**

1    **I. INTRODUCTION**

2    **Q. Please state your name, occupation and business address.**

3    A. My name is Mark A. Naylor; I am the Director of the Gas & Water Division at the  
4    New Hampshire Public Utilities Commission (Commission). My business address is 21  
5    South Fruit Street, Suite 10, Concord, New Hampshire.

6    **Q. Please describe your education and work experience.**

7    A. My education and work experience are summarized as Attachment MAN-6 to this  
8    testimony.

9    **Q. Please describe the issues raised by this docket.**

10   A. This docket involves a petition filed by Aquarion Water Company of New  
11   Hampshire, Inc. (Aquarion) for temporary and permanent rate relief pursuant to RSA  
12   378. Aquarion's petition also requests Commission approval of new proposals for a  
13   water infrastructure and conservation adjustment (WICA), a system development charge  
14   (SDC), an inclining block rate for consumption charges, and a water balance plan (WBP)  
15   intended to encourage water conservation.

16   **Q. What is the purpose of your testimony in this proceeding?**

17   A. The purpose of my testimony is to provide Staff's recommendation for a revenue  
18   requirement for permanent rates for Aquarion, and to provide my opinion on the WICA  
19   and SDC proposals. I note that Staff witness James L. Lenihan will also be providing  
20   testimony on the WICA, SDC, inclining block, and WBP proposals.

21   **II. REVENUE REQUIREMENT**

22   **Q. Please summarize Aquarion's revenue requirement request in this docket.**

1 A. Aquarion seeks an increase in its revenue requirement of \$1,056,070 or 21.08%.  
2 Aquarion is using a test year ending March 31, 2008. In addition, Aquarion requests a  
3 step adjustment to its rates for the Mill Road standpipe project that became used and  
4 useful subsequent to the end of the test year. Aquarion indicates that this project totals  
5 about \$1.525 million, and the step adjustment requested would provide an additional  
6 \$222,607 in revenues or 4.52% over test year revenues. Aquarion's requested revenue  
7 requirement is calculated with a rate base of \$19,895,425 and a weighted average cost of  
8 capital of 8.16%. The cost of capital is based on a weighted average cost of debt of  
9 6.66% and a cost of equity of 10.23%.

10 **Q. Are temporary rates currently in effect in this docket?**

11 A. Yes. On February 13, 2009 the Commission issued Order No. 24,942 authorizing  
12 temporary rates for the pendency of this proceeding. Aquarion's existing rates were  
13 approved as temporary rates on a service rendered basis from December 15, 2008 through  
14 January 31, 2009. Beginning for service rendered on and after February 1, 2009,  
15 Aquarion was authorized to increase its rates by 7.65% overall until the investigation of  
16 Aquarion's permanent rate request is concluded.

17 **Q. What is Staff's recommendation for permanent rates in this docket?**

18 A. As indicated on Schedule 1 of Attachment MAN-1, Staff is recommending a revenue  
19 requirement of \$5,755,260. This represents an increase of \$833,950 or 16.95% over  
20 Aquarion's proforma test year operating water revenues of \$4,921,310. Staff  
21 recommends a rate base of \$19,644,680 as detailed on Schedule 2 of Attachment MAN-1.  
22 Staff recommends an overall cost of capital of 7.72% as shown on Schedule 1A of  
23 Attachment MAN-1. Staff's recommended weighted average cost of debt is 6.00%

1 which includes short-term inter-company debt in the capital structure. The amount of  
2 short-term debt included is \$2,600,000 at a cost of 4.05%. Staff is recommending a cost  
3 of equity of 9.75%. This equity recommendation should be reduced by 25 basis points to  
4 9.50% if Aquarion's WICA proposal is adopted, as discussed later in this testimony.

5 **Q. What is the basis of Staff's cost of capital recommendation?**

6 A. Staff is including short term debt in the capital structure of Aquarion for ratemaking  
7 purposes, since short term debt is regularly used as a financing source. In Aquarion's  
8 recent docket DW 09-045, Aquarion requested authority to increase its short term debt  
9 limit because it had exceeded the 10% limit contained in the Commission's  
10 administrative rules<sup>1</sup>. It became apparent to Staff that Aquarion uses short term debt  
11 frequently as a part of its capitalization, and Staff in its recommendation in that docket  
12 suggested the Commission consider including short term debt in Aquarion's capital  
13 structure in this rate case. In Order No. 24,959 the Commission agreed to consider it.  
14 Staff believes it is appropriate to include short term debt as a component of Aquarion's  
15 capitalization and Staff's recommendation for a cost of capital includes it. As for Staff's  
16 recommendation on a cost of equity, in the recently concluded Pennichuck Water Works,  
17 Inc. (PWW) rate proceeding DW 08-073, Staff engaged the services of a consultant to  
18 provide a cost of equity recommendation. Mr. David Parcell of Technical Associates,  
19 Inc. recommended a cost of equity in the range of 9% to 10%. Staff in settlement with  
20 PWW agreed to a 9.75% cost of equity and would otherwise recommend the same cost  
21 rate for Aquarion. As mentioned, in consideration of Aquarion's WICA proposal, Staff  
22 would recommend a cost of equity for this rate case of 9.50%.

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<sup>1</sup> N.H. Code Admin. Rules Puc 608.05 provides "No utility shall issue or renew any notes, bonds or other evidence of indebtedness payable less than 12 months after the date thereof if said short term debt exceeds 10% of the utility's net fixed plant without prior commission approval pursuant to Puc 201.05."

1 **Q. Please continue with your discussion of Staff's recommended revenue**  
2 **requirement.**

3 A. The series of schedules attached to this testimony as Attachment MAN-1 provide  
4 additional detail on Staff's recommendation. Recommended adjustments to rate base are  
5 illustrated on Schedule 2A. Recommended adjustments to revenue and expense accounts  
6 are detailed on Schedule 3A. All of these adjustments arise from either discovery  
7 conducted by the parties in this docket, or from the Staff's audit of Aquarion's books and  
8 records.

9 **Q. Are there particular rate base adjustments you would like to provide further**  
10 **explanation for?**

11 A. Yes. As illustrated on Attachment MAN-2, Staff has proformed Aquarion's test year  
12 plant additions for inclusion in rate base. Aquarion's filing provides for its plant in  
13 service and accumulated depreciation components to be included in rate base at their test  
14 year-end balances. Traditional ratemaking methodology has always called for the use of  
15 a 13-month average for rate base components, to reflect that the test year net income  
16 produced by that rate base is earned over the entire year. More recent practice for water  
17 utilities has been to recognize that test year plant additions can be segregated between  
18 those that produce additional revenue and those that do not, i.e. main replacements, etc.  
19 The Commission has been receptive to providing year-end balance in rate base for the  
20 non-revenue producing assets. In this filing, Aquarion does not distinguish between  
21 revenue producing and non-revenue producing assets and instead includes them all at  
22 year end value. Staff's recommendation provides year-end value only for Aquarion's test  
23 year non-revenue producing assets in accordance with recent Commission practice. In

1 addition to this adjustment, there are two other rate base adjustments recommended by  
2 Staff. Both result from findings by the Commission audit staff and are shown as  
3 adjustments 2 and 3 on Attachment MAN-1, Schedule 2A. The first adjustment is the  
4 removal of \$169,685 in rate base additions. The audit staff determined that these  
5 additions were not in service at the conclusion of Aquarion's March 31, 2008 test year.  
6 The second adjustment relates to plant assets which were retired but were not removed  
7 from plant in service accounts. These retired assets total \$156,893.

8 **Q. Are there particular adjustments to expense that you would like to provide**  
9 **further explanation for?**

10 A. Yes. Staff witness James Cunningham is providing testimony with respect to the  
11 depreciation study submitted by Aquarion with its rate filing. Mr. Cunningham's  
12 testimony recommends a reduction of \$80,021 in depreciation expense, and Staff's  
13 revenue requirement recommendation includes it.

14 **Q. Is Staff supporting Aquarion's request for a step adjustment?**

15 A. Yes, Staff believes a step adjustment for Aquarion's Mill Road standpipe project is  
16 appropriate. This capital project totals about \$1.525 million and Staff understands that it  
17 was completed in 2008 in the months following the end of the test year. If this project is  
18 not recognized, it would cause an immediate deficiency in Aquarion's earnings following  
19 this rate case. Such circumstances are appropriate for consideration of a significant plant  
20 investment.

21 **Q. What is Staff's specific recommendation for Aquarion's step adjustment?**

22 A. Commission audit staff has begun a review of the plant records associated with the  
23 proposed step adjustment. It is anticipated that this review will be completed before the

1 final hearing in this rate case, and Staff will make a further recommendation when a final  
2 audit report is issued.

### 3 **III. WATER INFRASTRUCTURE AND CONSERVATION ADJUSTMENT**

#### 4 **(WICA)**

5 **Q. Please describe the WICA proposal Aquarion has made in this docket.**

6 A. As described in the prefiled testimony of Larry L. Bingaman, Aquarion proposes a  
7 WICA be implemented which would permit Aquarion to add a surcharge to customer  
8 bills in-between formal rate proceedings. The proposed WICA is based on capital  
9 spending. It is proposed by Aquarion as a way of providing incentive for the company to  
10 systematically replace aging infrastructure in a timely and cost-effective manner such that  
11 system reliability is enhanced, service to customers is improved, and lost water is  
12 reduced. Mr. Bingaman's testimony also suggests that employment of a WICA surcharge  
13 will mitigate rate shock to customers by more gradually raising rates, and will reduce the  
14 frequency of formal rate cases. The WICA surcharge is calculated as a percentage based  
15 on the original cost of completed eligible projects, multiplied by Aquarion's last found  
16 rate of return, grossed up for income taxes, plus related depreciation expense and  
17 property taxes, all divided by Aquarion's total retail water revenues approved in this  
18 proceeding. As Staff understands the proposal, based on Mr. Bingaman's testimony as  
19 well as through discovery responses from Aquarion, this calculated percentage would be  
20 applied to customer bills and the resulting amount would be added as a surcharge to the  
21 bill. This surcharge would be applied only after the company requested approval from  
22 the Commission. Projects eligible for WICA rate treatment would be previously  
23 submitted and approved by the Commission, and would include capital projects intended

1 to improve or protect the quality and reliability of service to customers. Aquarion's  
2 proposal indicates that such projects would include mains, valves, services, meters, and  
3 hydrants; main cleaning and re-lining projects; relocations of infrastructure that are not  
4 reimbursable; purchase of leak detection equipment; and installation of production meters  
5 and pressure reducing valves. Aquarion proposes that the WICA surcharge be limited to  
6 5% of each customer bill in any 12 month period, and capped at 7.5% in total prior to the  
7 filing of its next general rate case. Following completion of that rate case, the WICA  
8 surcharge would be subsumed into the new permanent rates and be reset to zero.

9 **Q. What benefits to customers does Aquarion cite in this WICA proposal?**

10 A. Aquarion cites mitigation of rate shock, less frequent rate cases, and reduction of lost  
11 water as benefits to customers. In addition, Aquarion has told the parties to this docket  
12 that Aquarion, and water utilities in general, need to be further incented to speed up  
13 critical infrastructure replacement. Aquarion points to the endorsement of the  
14 distribution system improvement charge (DSIC), a similar measure, by the National  
15 Association of Regulatory Utility Commissioners (NARUC) in 1999. That endorsement  
16 also cites benefits such as improved water quality, increased pressure, and fewer main  
17 breaks and service interruptions.

18 **Q. Has the WICA surcharge mechanism been previously approved in New**  
19 **Hampshire?**

20 A. No it has not. The DSIC has been approved for use in a number of other jurisdictions,  
21 including Pennsylvania, California, Delaware and others, as cited in Mr. Bingaman's  
22 testimony.

23 **Q. What is your view of the proposed WICA surcharge?**



1 A. I believe the WICA proposal proffered by Aquarion in this proceeding has merit, but I  
2 can only support it with a corresponding adjustment to Aquarion's cost of equity.  
3 Aquarion has suggested that the WICA mechanism has substantial benefits to customers.  
4 Mr. Bingaman's testimony suggests that customers will benefit through a more reliable  
5 system with improved water quality, through the mitigation of rate shock since rate  
6 increases based on capital spending will occur to some extent between rate cases, and  
7 through less frequent rate cases and their associated cost to prosecute. Although I agree  
8 that these all represent some level of benefit to customers, it is my opinion that the utility  
9 receives much greater benefit. The benefits to the utility include enhanced cash flow and  
10 a reduction in regulatory lag. There are also other likely impacts of implementing a  
11 WICA surcharge that are of concern.

12 **Q. Please elaborate on your other concerns with the WICA surcharge.**

13 A. Approval of a WICA surcharge where customer rates can be increased between rate  
14 cases is a significant change to the traditional method of ratemaking. It is my view that  
15 the existing framework for setting rates has worked well. Well managed utilities with  
16 capital budgets implement system improvements in an orderly way, by acquiring the  
17 needed capital, deploying that capital in the field, and seeking rate adjustments all in a  
18 coordinated manner. The rate of return granted by regulatory bodies is reflective of the  
19 level of risk inherent in the provision of traditional utility service. It is my opinion that  
20 the introduction of a WICA mechanism alters the relative risk of a utility in the utility's  
21 favor because it will speed up its cash flows, reduce regulatory lag, and will mitigate its  
22 litigation risk in future rate proceedings.

1 Another concern with implementation of a WICA surcharge is that the introduction of a  
2 mechanism such as a WICA can open the door to other similar pass-through of costs.  
3 Although I recognize that Aquarion's proposal includes Commission scrutiny not only of  
4 the list of eligible projects, but of the calculated surcharge to be applied to customer bills,  
5 I do not believe that mechanisms that provide for changes to customer rates without a full  
6 analysis of all of the utility's costs are particularly fair to customers, and may further  
7 upset the balance of risk in utility ratesetting.

8 **Q. Do you have a recommendation for addressing your concerns with a WICA**  
9 **surcharge?**

10 A. Yes. I believe that if the Commission finds that a WICA surcharge is appropriate for  
11 Aquarion, the terms of its implementation be carefully defined. Most of all, however,  
12 consistent with my earlier comments that I believe that the WICA surcharge provides  
13 greater benefits to the utility than to the customer, I believe that implementation of a  
14 WICA surcharge should be accompanied by a reduced return on the company's equity  
15 capital. It is difficult to quantify the amount of reduction in return that would return the  
16 balance between the utility and its customers. I am recommending a starting point of 25  
17 basis points, and thus Staff's recommendation for a cost of equity in this proceeding  
18 would be 9.50% if a WICA proposal is adopted. Staff looks forward to discussing these  
19 issues with the parties at our scheduled settlement conference on June 16.

20 **IV. SYSTEM DEVELOPMENT CHARGE (SDC)**

21 **Q. Please describe the SDC proposal that Aquarion has made in this proceeding.**

22 A. As explained in Mr. Bingaman's testimony, Aquarion proposes a SDC, also known as  
23 a connection charge, to offset the cost of system improvements needed to accommodate

1 new customers. Mr. Bingaman indicates that, while an SDC is more common among  
2 municipal water utilities than rate-regulated utilities, he is aware that at least three  
3 regulated water utilities in Massachusetts have received permission to implement an  
4 SDC. He describes the two approaches to calculating an SDC, one which assumes that  
5 SDC funds collected would be focused on the need to build new capacity to  
6 accommodate new customers. This approach is known as the incremental approach. The  
7 second method focuses on the capacity of existing infrastructure available to new  
8 customers, the cost of which has previously been borne by existing customers. This  
9 approach has been labeled as the buy-in approach. Aquarion has determined that its  
10 request for a SDC be modeled as a buy-in approach. See response to Staff data request 2-  
11 54, attached as Attachment MAN-4, for how Aquarion distinguishes between the two  
12 approaches in terms of actual plant facilities. Fees collected from all new connections to  
13 the system will be considered as contributions in aid of construction (CIAC) and will be  
14 considered as “compensation” to existing customers who paid, according to Mr.  
15 Bingaman, for “oversizing” the system in order to be able to accommodate those new  
16 connections. Since this collection of an SDC is related to existing plant and not future  
17 plant, according to Mr. Bingaman, the funds collected will not violate New Hampshire’s  
18 so-called anti-CWIP (construction work in progress) law, RSA 378:30-a, which prohibits  
19 utilities from charging customers for plant not yet in service.

20 **Q. What benefits to customers does Aquarion cite for proposing a SDC?**

21 A. Aquarion cites in Mr. Bingaman’s testimony that the SDC is designed to assign a  
22 reasonable portion of existing plant costs to new customers, because otherwise existing  
23 customers are charged for plant that would not have been necessary in the absence of

1 future growth. In discovery, particularly in Aquarion's response to Staff 2-55  
2 (Attachment MAN-5), Aquarion also cites concern on the part of some of its customers  
3 about the continued upward pressure on rates resulting from customer growth. By  
4 implementation of an SDC, new customers are required to pay a fee which is then booked  
5 as CIAC by Aquarion. Since CIAC is an offset to a utility's rate base, future rate  
6 increases would be somewhat mitigated for all customers.

7 **Q. What will Aquarion do with the funds received from an SDC?**

8 A. The company does not indicate what it will do with the funds. The cash received  
9 would be credited to a CIAC account, and thus become an offset to future rate base, as  
10 indicated above.

11 **Q. What is Staff's view of the proposed SDC?**

12 A. Staff opposes it. Staff believes it is contrary to traditional ratemaking principles, is  
13 discriminatory to new customers, and is an inappropriate way to capitalize a rate-  
14 regulated utility.

15 **Q. Please explain further your opposition to an SDC.**

16 A. Staff disagrees with Aquarion's assertion that existing customers should be somehow  
17 "reimbursed" for the costs associated with sizing the system to accommodate new  
18 customers. Most utility systems of any appreciable size are built with some level of  
19 anticipated future growth in its customer base, such that its facilities can accommodate  
20 new connections. Whenever utilities undertake substantial system upgrades such as  
21 filtration plants, new well fields, etc., they routinely take into account some reasonable  
22 level of future system need. It is not necessary nor is it reasonable that existing  
23 customers should now be "reimbursed". Further, traditional ratemaking provides that

1 rates charged to customers be set such that all of a utility's reasonable and necessary  
2 costs are recovered, including its capital costs. Therefore, since the utility is already  
3 being compensated for all of its existing capital costs through rates, the question arises:  
4 why does the utility need additional capital in payment for existing plant when its current  
5 rates are already fully compensatory?

6 **Q. If rates are already fully compensatory to the utility, isn't the "buy-in"**  
7 **methodology merely a theory?**

8 A. Yes. Staff believes that the "buy-in" methodology where existing customers are  
9 compensated is merely theoretical. What is actually occurring is that new customers are  
10 being required to capitalize the utility. And the cash that results from such capital  
11 contributions will be used for operating expenses and new plant additions<sup>2</sup>. It is true  
12 under Aquarion's proposal that SDC payments would be booked as CIAC and will offset  
13 future rate base. Staff suggests that regardless of this fact, new customers would be  
14 required to pay amounts to the utility that previous customers have not had to pay, and  
15 this is discriminatory. Existing customers have been required to pay the tariffed rate;  
16 none have been required to provide capital to reimburse the customers before them  
17 already taking service. It seems inequitable that new customers now be required to pay a  
18 SDC to connect to the water distribution system and still pay a rate to the utility which  
19 covers all of the utility's costs.

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<sup>2</sup> Staff observes that Aquarion's calculation of an SDC, as presented in the testimony of Ms. Discepolo at page 25, is based on "the cost related to the upsizing of mains required to meet additional demands." This description of how to calculate the SDC appears to be inconsistent with the concept of "reimbursing" existing customers for system capacity, i.e. the "buy-in" approach; it appears fully geared to new plant additions needed as a result of new customers joining the system. In addition, Aquarion's response to Staff data request 2-55 (Attachment MAN-5) contains this statement: "Therefore, the Company has looked for ways to more equitably recover **the cost of future system improvements.**" (Emphasis added). Future system improvements are not the focus of the buy-in approach as described in Mr. Bingaman's testimony.

1 **Q. Please explain why you believe a SDC is an inappropriate way to capitalize a**  
2 **utility.**

3 A. Long-standing ratemaking methodology provides that regulated utilities acquire  
4 capital, invest it in utility assets, and receive a rate order from a regulatory authority that  
5 provides a reasonable return on those investments. Under this traditional methodology,  
6 customers are not required to pay compensatory rates to the utility AND provide capital.  
7 It is the utility's responsibility to acquire capital, not that of customers.

8 **Q. How do you distinguish capital contributions known as CIAC from capital**  
9 **contributions that arise from a SDC?**

10 A. CIAC is typically provided by a property developer specifically to pay the cost of  
11 plant needed to connect that particular development to the utility's distribution system.  
12 Receipts of CIAC are usually the result of main extension policies in a tariff and are in  
13 payment for new plant needed immediately to serve that development. A SDC is a far  
14 less specific charge, to be levied on any new connection, and under Aquarion's proposal,  
15 is to "reimburse" existing customers for use of the existing utility system.

16 **Q. Do you have any other concern with respect to a SDC?**

17 A. Yes. There is nothing to distinguish the establishment of an SDC in Aquarion's  
18 service territory from the establishment of one in any other utility franchise in the state.  
19 If the Commission were to agree to this proposal, Staff does not see how the so-called  
20 "buy-in" approach could not similarly be adopted for electric or gas distribution utilities,  
21 or sewer collection utilities, or telephone utilities. For the reasons presented above, Staff  
22 does not believe a SDC is an appropriate mechanism for regulated utilities and we  
23 recommend the Commission deny Aquarion's request to establish one.

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

2    A. Yes it does.

**Attachment MAN-1  
Schedule 1**

**DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
REVENUE REQUIREMENT**

Rate Base (Sch 2)	\$ 19,644,680	
Rate of Return (Sch 1A)	<u>7.72%</u>	
Operating Income Requirement	1,517,517	
Operating Income (Sch 3)	<u>1,021,526</u>	
Revenue Deficiency Before Taxes	495,991	
Divided by Tax Factor (Sch 1B)	<u>59.48%</u>	
Revenue Deficiency	833,950	
Test Year Water Revenue (Sch 3)	<u>4,921,310</u>	
Revenue Requirement	<u>\$ 5,755,260</u>	
Percent Increase	<table border="1"><tr><td>16.95%</td></tr></table>	16.95%
16.95%		



DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
WEIGHTED AVERAGE COST OF CAPITAL

	Capital Structure				
	Unadjusted @ 03/31/08	Pro-forma Adjustments	Adjusted @ 03/31/08	Component Ratio	Weighted Average Cost
<b>Debt</b>					
Inter-Company Debt	\$ 2,600,000	\$ -	\$ 2,600,000	13.13%	4.05%
Long-Term Debt	8,900,000	-	8,900,000	44.94%	6.91%
<b>Total Debt</b>	<u>11,500,000</u>	<u>-</u>	<u>11,500,000</u>	<u>58.07%</u>	<u>3.64%</u>
<b>Preferred Stock</b>	<u>2,800</u>	<u>-</u>	<u>2,800</u>	<u>0.01%</u>	<u>6.00%</u>
<b>Common Equity</b>					
Common Stock	2,187,075	-	2,187,075	11.04%	
Paid in Capital	3,558,190	-	3,558,190	17.97%	
Contributed Capital	480,250	-	480,250	2.43%	
Retained Earnings	2,030,563	45,100 *	2,075,663	10.48%	
<b>Total Common Equity</b>	<u>8,256,078</u>	<u>45,100</u>	<u>8,301,178</u>	<u>41.92%</u>	<u>9.75%</u>
<b>Total Capitalization</b>	<u>\$19,758,878</u>	<u>\$ 45,100</u>	<u>\$19,803,978</u>	<u>100.00%</u>	<u>7.72%</u>

\* Adjustment based upon Staff Audit Issue # 8.

**Attachment MAN-1  
Schedule 1B**

**DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
EFFECTIVE TAX FACTOR**

Taxable Income	100.00%
Less: NH Business Profits Tax	<u>8.50%</u>
Federal Taxable Income	91.50%
Federal Income Tax Rate	<u>35.00%</u>
Effective Federal Income Tax Rate	32.03%
Add: NH Business Profits Tax	<u>8.50%</u>
Effective Tax Rate	<u><u>40.53%</u></u>
Percent of Income Available if No Tax	100.00%
Effective Tax Rate	<u>40.53%</u>
Percent Used as a Divisor in Determining the Revenue Requirement	<u><u>59.48%</u></u>
Tax Multiplier	<u><u>0.68138</u></u>

DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
RATE BASE

	(1) Test Year Average (Co Filing - Sch 3; Pg 1)	(2) Pro-forma Adj's Per Company (Co Filing - Sch 3; Pg 1)	(3) Pro-forma Test Year (Co Filing - Sch 3; Pg 1)	(4) Pro-forma Adj's Per Staff	(5) Sch 2A	(6) Adjusted Rate Base Per Staff
Plant in Service	\$ 30,162,763	\$ 2,082,865	\$ 32,245,628	\$ (470,982)	1 - 3	\$ 31,774,646
Accumulated Depreciation Contributions in Aid of Construction - Net	(8,113,258) (2,405,349)	(309,898)	(8,423,156) (2,405,349)	166,170	4 - 7	(8,256,986) (2,405,349)
Net Plant in Service	19,644,156	1,772,967	21,417,123	(304,812)		21,112,311
Cash Working Capital	197,976		197,976	6,583	8	204,559
Materials and Supplies	167,097		167,097			167,097
Prepayments	16,743		16,743	269	9	17,012
Unamortized Deferred Debits	433,178		433,178	47,216	10	480,394
Customer Advances	(7,866)		(7,866)			(7,866)
Deferred Income Taxes	(2,328,826)		(2,328,826)			(2,328,826)
TOTAL RATE BASE	\$ 18,122,458	\$ 1,772,967	\$ 19,895,425	\$ (250,745)		\$ 19,644,680

DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
PRO-FORMA ADJUSTMENTS TO RATE BASE

Adj #

**PLANT IN SERVICE**

1	Staff Adjustment to Plant in Service for Revenue Producing Additions (See Attachment 2):	\$ (144,404)
2	To reduce Plant in Service by amount of post-test year additions included in test year plant (Per Staff Audit Issue # 1).	(169,685)
3	To record test year retirements not reflected in Plant in Service (Per Staff Audit Issue # 3).	<u>(156,893)</u>
	Total Adjustments - Plant in Service	<u>\$ (470,982)</u>

**ACCUMULATED DEPRECIATION**

4	Staff Adjustment to Accumulated Depreciation for Revenue Producing Additions (See Attachment 2).	\$ 21,485
5	To record test year retirements not reflected in Accumulated Depreciation (Per Staff Audit Issue # 3).	156,893
6	To recognize annual amortization of Organization Costs (Per Staff Audit Issue # 4).	(885)
7	To adjust net understatement of Depreciation Expense recorded during the test year (Per Staff Audit Issue # 5).	<u>(11,323)</u>
	Total Adjustments - Accumulated Depreciation	<u>\$ 166,170</u>

**CASH WORKING CAPITAL**

8	To adjust Cash Working Capital in order to reflect Staff's O&M pro-forma adj's:		
	Total O & M Expenses (Att 1; Sch 3; Column (6))	\$ 2,547,434	
	Lead/Lag Study Percentage (Per Co Filing)	8.03%	
	Cash Working Capital allowance	<u>204,559</u>	
	Less: Amount per Company filing (Sch 3D; Page 1)	<u>(197,976)</u>	<u>\$ 6,583</u>

**PREPAYMENTS**

9	To adjust Prepayments for understatement of prepaid assessment (Per Staff Audit Issue # 7):		
	Adjustment per Audit Issue # 7	\$ 537	
	To approximate test year average of adjustment	<u>/ 2</u>	<u>\$ 269</u>

**UNAMORTIZED DEFERRED DEBITS**

10	To reclassify SAP support and training costs from Operating Expense to be amortized over a 5-year period (Based on Co response to Staff DR 3-3):		
	Costs reclassified from Operating Expense to Unamort Deferred Debits	\$ 59,020	
	Less: Annual Amortization (5-year recovery period)	<u>(11,804)</u>	<u>\$ 47,216</u>

**Net Staff Pro-forma Adjustments to Rate Base**

**\$ (250,745)**

DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
OPERATING INCOME STATEMENT

	(1) 12 Mos Ended 03/31/08 (Co Filing - Sch 1; Pg 2)	(2) Pro-forma Adj's Per Company (Co Filing - Sch 1; Pg 2)	(3) Pro-forma Per Company (Co Filing - Sch 1; Pg 2)	(4) Staff Pro-forma Adjustments	(5) Sch 3A	(6) Pro-forma Test Year	(7) Revenue Deficiency (Sch 1)	(8) Revenue Requirement Per Staff (Sch 1)
OPERATING REVENUES								
Water Revenue	\$ 5,072,757	\$ (165,147)	\$ 4,907,610	\$ 13,700	11	\$ 4,921,310	\$ 833,950	\$ 5,755,260
Other Revenue	71,117	31,187	102,304			102,304		102,304
Net Jobbing/Cross Connection Income	23,826	(10,692)	13,134			13,134		13,134
Total Operating Revenues	<u>5,167,700</u>	<u>(144,652)</u>	<u>5,023,048</u>	<u>13,700</u>		<u>5,036,748</u>	<u>833,950</u>	<u>5,870,698</u>
OPERATING EXPENSES								
O & M Expenses:								
Source of Supply	42,460	2,075	44,535			44,535		44,535
Pumping	309,609	18,190	327,799	(1,909)	12	325,890		325,890
Treatment	107,030	24,273	131,303	24,223	13	155,526		155,526
Transmission & Distribution	445,901	36,331	482,232			482,232		482,232
Customer Accounting	174,464	7,461	181,925			181,925		181,925
Administrative & General	1,293,135	115,535	1,408,670	(51,344)	14 - 21	1,357,326		1,357,326
Total O & M Expenses	<u>2,372,599</u>	<u>203,865</u>	<u>2,576,464</u>	<u>(29,030)</u>		<u>2,547,434</u>	-	<u>2,547,434</u>
Depreciation / Amortization	823,706	114,916	938,622	(80,021)	22	858,601		858,601
Amortization - CIAC	(36,495)	4,282	(32,213)			(32,213)		(32,213)
Taxes - Other	368,901	4,084	372,985	78,771	23 - 24	451,756		451,756
Total Operating Expenses	<u>3,528,711</u>	<u>327,147</u>	<u>3,855,858</u>	<u>(30,280)</u>		<u>3,825,578</u>	-	<u>3,825,578</u>
Net Operating Income	<u>1,638,989</u>	<u>(471,799)</u>	<u>1,167,190</u>	<u>43,980</u>		<u>1,211,170</u>	<u>833,950</u>	<u>2,045,119</u>
Before Income Tax								
Income Taxes:								
NH Business Profits Tax *	80,560	(45,075)	35,485	3,738	Sch 3B	39,223	70,886	110,109
Federal Income Taxes *	359,127	(219,077)	140,050	14,085	Sch 3B	154,135	267,072	421,207
Income Tax allocated to Non-Utility Income			(3,714)			(3,714)		(3,714)
Total Income Taxes	<u>435,973</u>	<u>(264,152)</u>	<u>171,821</u>	<u>17,823</u>		<u>189,644</u>	<u>337,958</u>	<u>527,602</u>
NET OPERATING INCOME	<u>\$ 1,203,016</u>	<u>\$ (207,647)</u>	<u>\$ 995,369</u>	<u>\$ 26,157</u>		<u>\$ 1,021,526</u>	<u>\$ 495,991</u>	<u>\$ 1,517,517</u>

\* Includes Deferred Taxes

DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
PRO-FORMA ADJUSTMENTS TO REVENUE AND EXPENSES

Adj #

PRO-FORMA ADJUSTMENT TO REVENUE:

WATER REVENUE

11	To record adjustment for mis-posted operating revenues (Per Staff Audit Issue # 11).	\$	<u>13,700</u>
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PRO-FORMA ADJUSTMENTS TO EXPENSES:

PUMPING

12	To reverse Co's Purchased Power - Gas & Oil pro-forma adjustment (Based on Co's response to Staff DR 3-1).	\$	<u>(1,909)</u>
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TREATMENT

13	To update Co's pro-forma adjustment for Chemical Expense (Per Co response to OCA DR 1-23):		
	Modified pro-forma adjustment for Chemical Expense (OCA DR 1-23)	\$	28,106
	Less: Original pro-forma adjustment for Chemical Expense (Co Filing; Sch 1I)	<u>(3,883)</u>	<u>\$ 24,223</u>

ADMINISTRATIVE & GENERAL

14	To adjust Co's Salaries & Wages pro-forma (Based on Co's responses to OCA DR's 1-38 and 3-34):		
	Reduction in pro-forma wages	\$	(22,268)
	Percent Charged to Expense	<u>84.70%</u>	<u>\$ (18,861)</u>

15	To update Co's Employee Medical Cost pro-forma (Per Co's response to OCA DR 3-30):		
	Revised Medical Cost pro-forma (OCA DR 3-30)	\$	203,586
	Less: Original Medical Cost pro-forma (Co Filing; Sch 1D; Page 1)	<u>(169,978)</u>	
	Increase in Medical Cost pro-forma	33,608	
	Percent Charged to Expense	<u>84.70%</u>	<u>28,466</u>

16	To update Co's Vice President Benefits pro-forma (Based on Co's response to OCA DR 3-32):					
		Less: Former VP				
		FYE 03/31/09				
		Updated	Actual	Annualized	Difference	
		Pro-forma				
	401K	\$ 2,363	\$ (2,893)	\$ (3,857)	\$ (1,494)	
	Life Ins	183	(178)	(237)	(54)	
	LT Disabil	152	(148)	(197)	(45)	
	Total	<u>2,698</u>	<u>(3,219)</u>	<u>(4,292)</u>	<u>(1,594)</u>	
			Percent Charged to Expense		<u>84.70%</u>	<u>(1,350)</u>

17	To revise Co's pro-forma adjustment for Employee Bonus Program (Per Co's response to OCA DR 3-28).		(9,762)
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DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
PRO-FORMA ADJUSTMENTS TO REVENUE AND EXPENSES

<u>Adj #</u>			
18	To correct Co's pro-forma adjustment for Shared Technology Costs (Per Co response to Staff DR 2-26):		
	Corrected IT Labor Cost per Staff 2-26	\$ 615,869	
	Less: IT Labor Cost per Original Filing (Co Sch 1V)	(626,197)	
	Total Reduction in Annual IT Cost	(10,328)	
	AWC-NH % Share of Costs	X 4.24%	(438)
19	To reclassify SAP support and training costs to Unamortized Deferred Debits to be amortized over a 5-year period (Based on Co response to Staff DR 3-3):		
	Costs reclassified from Operating Expense to Unamortized Deferred Debits	\$ (59,020)	
	Less: Annual Amortization (5-year recovery period)	11,804	(47,216)
20	To reduce test year expense by portion of NAWC dues related to lobbying activities (Per Staff Audit Issue # 6).		(903)
21	To correct mis-posted credit items recorded as expense (Per Staff Audit Issue # 12).		(1,280)
	Total Adjustments -- Administrative & General Expenses		\$ (51,344)
<b><u>DEPRECIATION / AMORTIZATION</u></b>			
22	To adjust annual Depreciation/Amortization Expense per the pre-filed Testimony of James J. Cunningham, Jr.		\$ (80,021)
<b><u>TAXES - OTHER</u></b>			
23	To adjust test year property taxes to 2008 expense level (Per Attachment 3).		\$ 80,961
24	To adjust Payroll Tax Expense for Staff Adj's to Salaries & Wages and Employee Bonus Program:		
	Staff pro-forma adjustment to Salaries & Wages (See Adj # 14)	\$ (18,861)	
	Staff pro-forma adjustment to Employee Bonus Program (See Adj # 17)	(9,762)	
	Total Staff payroll related pro-forma adjustments	(28,623)	
	Combined Social Security and Medicare Rate	7.65%	(2,190)
	Total Adjustments - Taxes - Other		\$ 78,771
	Net Staff Pro-forma Adjustments to Operating Income before Income Tax Effect		<u>\$ 43,980</u>

DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
PRO-FORMA ADJUSTMENTS TO INCOME TAXES

INCOME TAXES

To reflect the income tax effect of pro-forma adjustments to revenue and expense:

Pro-forma Adjustments per Staff:

Water Revenue	\$ 13,700
Other Revenue	-
Source of Supply Expense	-
Pumping Expense	1,909
Treatment Expense	(24,223)
Transmission & Distribution Expense	-
Customer Accounting Expense	-
Administrative & General Expense	51,344
Depreciation / Amortization Expense	80,021
Amortization Expense - CIAC	-
Taxes - Other Expense	(78,771)
Other Revenue/Expense	-

Net Income/(Expense) before Income Tax Resulting from Staff Pro-forma Adjustments	<u>43,980</u>
Less: New Hampshire Business Profits Tax @ 8.5%	<u>(3,738)</u>
Net Income/(Expense) from Staff Pro-forma Adjustments Subject to Federal Income Tax	40,241
Less: Federal income Tax @ 35%	<u>(14,085)</u>
Net Pro-forma Adjustments per Staff	<u><u>\$ 26,157</u></u>



DW 08-098  
**AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.**  
**STAFF ADJUSTMENT FOR REVENUE PRODUCING ADDITIONS**

**Plant in Service:**

Acct.	Description	(1) Per Co Revenue		(2) Response to Staff DR 3-4		(3) Percentage (1) / (2)		(4) Balance Mar-08		(5) 13 Month Average		(6) Difference (4) - (5)		(7) Staff Adjustment (3) x (6)	
		Producing	Additions	Total	Additions	(1) / (2)									
343	Transmission & Distribution Mains	\$ (8,038)	\$ 1,249,226	\$ 1,249,226	\$ 1,249,226	-0.64%		\$ 13,946,093	\$ 12,861,864	\$ 1,084,229	\$ 1,084,229	\$ 1,084,229	\$ 1,084,229	\$ (6,976)	
345	Services	(119,745)		172,258	172,258	-69.51%		4,464,491	4,352,034	112,457	112,457	112,457	112,457	(78,174)	
346	Meters	(137,153)		173,814	173,814	-78.91%		740,054	664,962	75,092	75,092	75,092	75,092	(59,254)	
	Total	\$ (264,936)	\$ 1,595,298	\$ 1,595,298	\$ 1,595,298	-16.61%		\$ 19,150,638	\$ 17,878,860	\$ 1,271,778	\$ 1,271,778	\$ 1,271,778	\$ 1,271,778	\$ (144,404)	

**Accumulated Depreciation:**

Staff Adjustment to Plant in Service	\$ (144,404)
Co Adjustment to Plant in Service (Co Filing; Sch 3; Page 1)	/ \$ 2,082,865
Percentage	-6.93%
Co Adjustment to Accum Depr (Co Filing; Sch 3; Page 1)	X \$ (309,898)
Staff Adjustment to Accum Depr	\$ 21,485

Attachment MAN-3  
Schedule 1

DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
ANALYSIS OF PRO-FORMA PROPERTY TAX EXPENSE

Municipality	Map/Lot/Sub	Location	2008 Property Tax Assessment	
			Assessment	Rate
Hampton	124-0008-0211	1 Merrill Ind Dr 211	\$ 67,000	\$ 16.33
"	124-0008-0210	1 Merrill Ind Dr 210	\$ 77,500	\$ 16.33
"	999-0129-0000	Town Area	\$ 8,460,000	\$ 14.05
"	999-0033-0000	Precinct Area	\$ 2,820,000	\$ 14.69
North Hampton	003-004-000	7 Mill Rd	\$ 547,400	\$ 12.58 *
"	999-001-000	Utility Water	\$ 6,932,400	\$ 12.58
"	023-015-000	Winnicut Rd Rear	\$ 123,000	\$ 12.58 *
"	003-007-000	Mill Rd Rear	\$ -	\$ 12.58
"	022-036-000	Winnicut Rd Rear	\$ 29,900	\$ 12.58 *
"	012-082-000	North Rd Rear	\$ 15,000	\$ 12.58 *
"	022-031-000	Winnicut Rd	\$ 218,000	\$ 12.58 *
Stratham	019-009-000	Winnicut Road	\$ 1,830,000	\$ 17.01 *
Rye	811180000	480 Central Road	\$ 2,366,000	\$ 7.35
Total Municipal			\$ 23,486,200	\$ 310,117
State of NH			\$ 12,965,659	\$ 6.60
<b>Total Pro-forma Property Tax Expense</b>			<b>\$ 36,451,859</b>	<b>\$ 395,691</b>
<b>Less: Test Year Property Tax Expense</b>				<b>\$ (314,730)</b>
<b>Pro-forma Adjustment for Property Tax Expense</b>				<b>\$ 80,961</b>

\* State Education Tax Rate excluded per Staff Audit Issue # 9.

DW 08-098  
AQUARIUM WATER COMPANY OF NEW HAMPSHIRE, INC.  
ANALYSIS OF 2008 PROPERTY TAXES

Municipality	Map/Lot/Sub	Location	First Issue		Second Issue		Total Tax	
			Assessment	Rate	Assessment	Rate		Tax
Hampton	124-0008-0211	1 Merrill Ind Dr	\$ 47,800	\$ 9.90 *	\$ 473	\$ 67,000	\$ 16.33 *	\$ 621
"	124-0008-0210	1 Merrill Ind Dr	\$ 58,100	\$ 9.90 *	\$ 575	\$ 77,500	\$ 16.33 *	\$ 691
"	999-0129-0000	Town Area	\$ 3,416,000	\$ 8.44	\$ 28,831	\$ 8,460,000	\$ 14.05	\$ 90,032
"	999-0033-0000	Precinct Area	\$ 1,138,000	\$ 8.83	\$ 10,043	\$ 2,820,000	\$ 14.69	\$ 31,383
North Hampton	003-004-000	7 Mill Rd	\$ 370,800	\$ 8.41 *	\$ 3,118	\$ 547,400	\$ 15.16 *	\$ 5,180
"	999-001-000	Utility Water	\$ 7,251,500	\$ 6.99	\$ 50,688	\$ 6,932,400	\$ 12.58	\$ 36,522
"	023-015-000	Winnicut Rd Rear	\$ 169,100	\$ 8.41 *	\$ 1,422	\$ 123,000	\$ 15.16 *	\$ 443
"	003-007-000	Mill Rd Rear	\$ 16,000	\$ 8.41 *	\$ 135	\$ -	\$ -	\$ (135)
"	022-036-000	Winnicut Rd Rear	\$ -	\$ -	\$ -	\$ 29,900	\$ 15.16 *	\$ 453
"	012-082-000	North Rd Rear	\$ -	\$ -	\$ -	\$ 15,000	\$ 15.16 *	\$ 227
"	022-031-000	Winnicut Rd	\$ -	\$ -	\$ -	\$ 218,000	\$ 15.16 *	\$ 3,305
Stratham	019-009-000	Winnicut Road	\$ 1,830,000	\$ 8.30	\$ 15,189	\$ 1,830,000	\$ 19.40 *	\$ 20,313
Rye	811180000	480 Central Road	\$ 2,366,000	\$ 6.69	\$ 7,914	\$ 2,366,000	\$ 7.35	\$ 9,476
Total Municipal			<u>\$ 16,663,300</u>		<u>\$ 118,388</u>	\$ 23,486,200		\$ 198,511
State of NH						\$ 12,965,659	\$ 6.60	\$ 85,573
Total Property Tax Expense						\$ 36,451,859		\$ 284,084
								\$ 402,472

\* Includes State Educational Tax Rate

DW 08-098  
AQUARION WATER COMPANY OF NEW HAMPSHIRE, INC.  
ANALYSIS OF 2007 PROPERTY TAXES

Municipality	Map/Lot/Sub	Location	First Issue		Second Issue		Total Tax
			Assessment	Rate	Assessment	Rate	
Hampton	124-0008-0211	1 Merrill Ind Dr	\$ 47,800	\$ 9.66 *	\$ 47,800	\$ 19.79 *	\$ 946
"	124-0008-0210	1 Merrill Ind Dr	\$ 58,100	\$ 9.66 *	\$ 58,100	\$ 19.79 *	\$ 1,150
"	999-0129-0000	Town Area	\$ 4,354,500	\$ 8.18	\$ 3,416,000	\$ 16.88	\$ 57,662
"	999-0033-0000	Precinct Area	\$ 1,451,500	\$ 8.71	\$ 1,138,000	\$ 17.65	\$ 20,086
North Hampton	003-004-000	7 Mill Rd	\$ 370,800	\$ 7.73 *	\$ 370,800	\$ 16.82 *	\$ 6,237
"	999-001-000	Utility Water	\$ 7,251,500	\$ 6.38	\$ 7,251,500	\$ 13.98	\$ 101,376
"	023-015-000	Winnicut Rd Rear	\$ 169,100	\$ 7.73 *	\$ 169,100	\$ 16.82 *	\$ 2,844
"	003-007-000	Mill Rd Rear	\$ 16,000	\$ 7.73 *	\$ 16,000	\$ 16.82 *	\$ 269
Stratham	019-009-000	Winnicut Road	\$ 1,830,000	\$ 8.20	\$ 1,830,000	\$ 16.59	\$ 30,360
Rye	811180000	490 Central Road	\$ 2,366,000	\$ 6.30	\$ 2,366,000	\$ 6.69	\$ 15,829
Total Municipal			<u>\$ 17,915,300</u>		<u>\$ 16,663,300</u>		<u>\$ 236,758</u>
State of NH					\$ 11,811,129	\$ 6.60	\$ 77,953
<b>Total Property Tax Expense</b>					<u>\$ 28,474,429</u>		<u>\$ 314,711</u>

\* Includes State Educational Tax Rate

AQUARION WATER COMPANY OF NEW HAMPSHIRE

DW 08-098

Aquarion Water Company's Responses to Staff Data Requests—Set 2

Data Request Received: March 5, 2009  
Request No.: Staff 2-54

Date of Response: March 26, 2009  
Witness: L. Discepolo

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REQUEST: On pages 16 and 17 of Mr. Bingaman's testimony regarding the SDC, please provide specific examples of facilities which would be considered under the "incremental" as well as the "buy-in" approach.

RESPONSE: The "incremental" approach focuses on the need to build new capacity for providing water service in the future. Generally, this method is considered most appropriate when a significant portion of the capacity required to serve new customers must be provided by construction of new source of supply facilities. Since the Company is not including the cost of new source development in the SDC, this approach was not proposed.

The "buy-in" approach focuses on the capacity of existing facilities, available to new customers, the cost of which has been borne by existing customers. The types of investments the Company identified for the "buy-in" approach were those related to the upsizing of water mains and related appurtenances to improve system delivery and to accommodate growth of new customers.

AQUARION WATER COMPANY OF NEW HAMPSHIRE

DW 08-098

Aquarion Water Company's Responses to Staff Data Requests—Set 2

Data Request Received: March 5, 2009  
Request No.: Staff 2-55

Date of Response: March 26, 2009  
Witness: L. Discepolo

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REQUEST: On page 17, lines 7 and 8, Mr. Bingham states 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.” Please list the changed circumstances which lead the Company to alter its belief in how the cost of facilities providing water service should be recovered.

RESPONSE: The Company has heard from some of its customers that they are concerned about the continued upward pressure on water rates caused by customer growth. Therefore, the Company has looked for ways to more equitably recover the cost of future system improvements. The Company believes that a system development charge offers such a mechanism, rather than recovery of these costs from all existing customers.

**EDUCATION AND WORK EXPERIENCE OF MARK A. NAYLOR**

My educational achievements include a Bachelor of Science degree in Social Science from Plymouth State College in 1978, and a Master of Science degree in Accounting from New Hampshire College in 1985.

I completed the National Association of Regulatory Utility Commissioners (NARUC) Annual Regulatory Studies Program at Lansing, Michigan in August of 1992, and I completed the Nineteenth Annual Eastern Utility Rate Seminar co-sponsored by NARUC, the Florida Public Service Commission and the University of Utah in Hollywood, Florida in October of 1991. I am a member of the NARUC Staff Subcommittee on Accounting and Finance.

My professional work experience began as a Planner working for the Central New Hampshire Regional Planning Commission and the City of Manchester during the years from 1978 to 1984.

Upon receiving my MS in 1985, I was hired by Foxhill Interiors, Inc. in Bedford, NH as Controller. There I was responsible for all accounting, administrative, and financial functions of the Company. In October of 1986 I joined Landmark Title, Inc. in Manchester, NH as Controller. In this position I assumed responsibility for the accounting and finance functions of the Company and its two start-up subsidiaries, including preparation of financial statements and tax returns, budgeting and forecasting, and internal reporting to the parent company in Houston, Texas. I was named a Vice President by the Company Board of Directors in 1987.

**ATTACHMENT MAN-6**

**Page 2 of 2**

In November of 1990 I joined the Finance Department of the New Hampshire Public Utilities Commission as a PUC Examiner. In that capacity I worked primarily on water and wastewater utility matters. I participated in Staff audits, conducted financial analysis and prepared written testimony, and testified in those cases before the Commission. I was promoted to Assistant Finance Director in August of 1995. In January of 1998 I was named Acting Finance Director, and in August of that year was promoted to Finance Director. My responsibilities in that position included management of the Finance Department and review and approval of the Department's work products, review of financial statements and earnings levels of the regulated utilities, and providing advice and testimony on revenue requirements, earnings levels, financings, accounting and related matters to the Commissioners, department heads, regulated utilities, and the general public. Following a reorganization of the Commission's Staff in late 2001, I was named Director of the Gas & Water Division. In that capacity I am responsible for Staff involvement in all dockets concerning gas, water, sewer and steam utilities that are pending before the Commission.