STATE OF NEW HAMPSHIRE

BEFORE THE

PUBLIC UTILITIES COMMISSION

Re: Pennichuck Water Works, Inc.

DW 08-073

PREFILED DIRECT TESTIMONY OF WILLIAM D. PATTERSON

June 2008

1 **Q. Please state your name and business address.**

2 A. My name is William D. Patterson. My business address is 25 Manchester Street,
3 Merrimack, New Hampshire.

4 **Q. What is your position with the Company?**

5 A. I am the Senior Vice President, Treasurer and Chief Financial Officer of Pennichuck
6 Water Works, Inc. ("Company") and of its parent company, Pennichuck Corporation
7 (the "Parent"). I joined the Company in January 2005. I will be leaving the Company
8 effective June 20, 2008 but will serve as a consultant to the Company on this matter.

9 **Q. Have you previously testified before this or any other regulatory commission**
10 **or governmental authority?**

11 A. Yes. I have given live testimony and/or submitted written testimony in the following
12 dockets before the New Hampshire Public Utilities Commission:

13 Rate Cases

14 Pennichuck Water Works: DW 04-056, DW 06-073

15 Pennichuck East Utility: DW 05-072 , DW 07-032

16 Financings

17 Pennichuck Water Works – DW 05-094, DW 05-152

18 Pennichuck East Utility – DW 05-061, DW 05-072, DW 08-022

19 Pittsfield Aqueduct Company – DW 06-024, DW 06-030, DW 07-010

20 I have also submitted written testimony or given live testimony previously in the
21 following other forums:

PENNSYLVANIA-AMERICAN WATER COMPANY

Pennsylvania Public Utilities Commission, Docket No. R-00038304, April 2003
Reasonableness of price for acquisition of Citizens Utilities Water Company of Pennsylvania.

WEST VIRGINIA-AMERICAN WATER COMPANY
Public Service Commission of West Virginia, Case No. 01-1691-W-PC, June 2002
Rebuttal Testimony on Reasonableness of Acquisition and financial viability.

PENNSYLVANIA-AMERICAN WATER COMPANY
Pennsylvania Public Utility Commission, Docket Nos. A-212285F0096 and A-230073F0004, May 2002
Rebuttal Testimony on Reasonableness of Acquisition and financial viability.

SOUTHERN CONNECTICUT GAS COMPANY
Connecticut Department of Public Utility Control Docket No. 99-04-18, April 1999
Financial community perspective of impact of deferred expense recovery on access to capital.

PENNSYLVANIA-AMERICAN WATER COMPANY
Pennsylvania Public Utility Commission, Docket No. R-973944, April 1997
Reasonableness of Acquisition and financial viability.

CENTRAL POWER AND LIGHT COMPANY
Public Utility Commission of Texas, Docket No. 14965, April 1996
Financial community perspective on changes in market structures to allow greater competition in the utility business environment.

NEW JERSEY-AMERICAN WATER COMPANY
New Jersey Board of Public Utilities, Docket No. WR95040165, October 1995
Financial community perspective on impact of phase-in plan on credit ratings and access to capital.

SOUTHERN INDIANA GAS & ELECTRIC COMPANY
Indiana Utility Regulatory Commission, Cause No. 39871, August 1994
Financial community perspective of impact of rate request on credit ratings and access to capital.

SOUTH JERSEY GAS COMPANY
New Jersey Board of Public Utilities, Docket No. GR9401002, January 1994
Financial community perspective of impact on rate request on credit ratings and access to capital.

INDIANAPOLIS WATER COMPANY
Indiana Utility Regulatory Commission, Cause No. 39713, December 1993

Financial community perspective of impact of rate request on credit ratings and access to capital.

Q. Please summarize your educational background.

A. I hold a Bachelor of Science in Engineering degree, summa cum laude, in Civil Engineering from Princeton University. I was nominated to the Phi Beta Kappa honor society. I also hold a Master of Business Administration degree with high honors in Finance and Accounting from the University of Chicago Graduate School of Business. I was nominated to the Beta Gamma Sigma honor society.

Q. Please summarize your professional background.

A. I spent the first eighteen years of my professional career as an investment banker specializing in the utility industries. From 1990 to 1996, I was a Managing Director in the Investment Banking Division of Smith Barney Inc. where I directed all aspects of the firm's utility corporate finance activities including account coverage, transaction management, and new business development. I served as the primary relationship manager for many of the firm's major utility clients. I have extensive experience in equity and debt financing for utilities in both the public and private markets as well as in advising utilities on a variety of strategic issues including capital structure, dividend policy, acquisitions, divestitures and restructurings. Prior to joining Smith Barney, I was employed in similar capacities at E.F. Hutton from 1978 to 1987 and then at Shearson Lehman following that company's acquisition of E.F. Hutton, from 1988 to 1990. In April 1996, I joined Craig Drill Capital, a private investment firm, as a Managing Director with responsibility for investment research activities. At the same time, I established an independent consulting firm of which I was the principal consultant. In January 1999, I elected to concentrate exclusively on an independent

consulting practice and formed EnSTAR Management Corporation, for which I served as President. From January 2000 to June 2001, I was employed as Chief Financial Officer of Enermetrix, an early state energy software development company. Thereafter, I returned to my independent consulting practice.

Q. What is the purpose of your testimony?

A. I will address the Company's determination of its proposed overall rate of return, 7.81%, consisting of long-term debt and common equity. I will also address the critical importance to the Company of receiving adequate rate relief, including a reasonable return on common equity in order to maintain its financial integrity and to ensure it an opportunity to continue to raise debt and equity capital at reasonable costs and terms in rapidly changing market conditions.

Q. Please comment on the Company's financial integrity.

A. The Company's request for rate relief is predicated on the recent erosion in its financial performance. This is best exemplified through a comparison of its recent actual versus allowed return on invested capital (ROI). ROI is defined as net operating income divided by average rate base. As shown in Section 15, Schedule 10, the Company's actual ROI eroded significantly during the test year ending December 31, 2007. For the twelve months ended December 31, 2007, the Company's actual ROI was 6.64%. The Commission's order in DW 06-073 established an allowed rate of return of 7.89. At December 31, 2007, the difference between the Company's actual ROI and its allowed return was 125 basis points. The Company's actual ROI further deteriorated to 6.47% by April 30, 2008, a decline of 142 basis points.

Q. Please explain the principal reasons for this decline in actual ROI.

A. The Company's decline in actual ROI is largely attributable to the substantial capital improvements needed to ensure continued compliance with the Safe Drinking Water Act. As described in detail in Mr. Ware and Ms. Hartley's testimony, the Company invested approximately $9.7 million for such capital Improvements through December 31, 2007. Furthermore, the Company expects to have completed an additional $14.9 million in capital improvements through November 2008, the majority of which are non-revenue producing and either already are in service or will be prior to final adjudication of this proceeding. In addition, the Company has experienced increases in certain operating expenses since its last rate case, DW 06-073 (predicated on a 2005 test year) for which it seeks recovery through higher rates. These operating expense increases are discussed in Ms. Hartley and Mr. Ware's testimony.

Q. Please explain the Company's proposed capital structure.

A. As shown in Section 15, Schedule 2, the Company's total pro forma capitalization as of December 31, 2007, was $100.7 million. This was comprised of actual long-term debt of $58.2 million and pro forma common equity of $42.5 million. Common equity is stated pro forma to reflect an equity infusion from the Parent from funds derived from the sale of real estate. The transaction, which had been anticipated to close in late 2007, closed in January 2008 because of the turbulent credit markets. Once the transaction closed, the Parent's board of directors formally authorized contribution of the cash proceeds from the transaction to the Company in order to reduce the Company's leverage, which has increased substantially over the recent past because of borrowing for the Company's water treatment plant project.

1 **Q. How does the Company's proposed capital structure compare with the publicly**
2 **traded water utility industry?**
3 A. Even with the most recent equity infusion, the Company's 58%/42% debt/equity ratio
4 is significantly more highly leveraged as compared with other publicly traded water
5 utility companies. As shown on Section 11, Page 12, Table 1, at December 31, 2007
6 the median publicly traded water utility industry debt/equity ratio was 48%/52%.
7 **Q. What factors have caused the Company to deviate from the industry median?**
8 A. The Company's significantly more highly leveraged debt/equity ratio is primarily
9 attributable to two factors. First, the Company has been going through a very
10 significant capital improvements program that has resulted in a doubling of its rate
11 base. Those rate base additions have been almost exclusively of anon-revenue
12 producing nature. In order to try to mitigate the rate impact of these substantial non-
13 revenue producing rate base additions, the Company has sought to access the
14 lowest cost capital available. Obviously, all other things being equal, debt
15 (particularly the non-taxable debt accessed by the Company for the water treatment
16 plant project) is a less expensive from of capital than equity. However, if a Company
17 becomes too highly leveraged, it can have a negative impact on its debt costs and its
18 overall ability to access the capital markets. The second reason that the Company
19 has been required to increase its leverage above that of other public water utilities is
20 its inability to access the public equity markets as a result of the pending eminent
21 domain case. Although the Company was able to undertake a public offering in 2005
22 while the eminent domain litigation was pending, that has not been possible with the
23 proceeding in its later stages (moving toward and going through trial and now

1 awaiting a decision) because the market would perceive an uncertain future and
2 related substantial risk facing the Company. In addition, substantially all of the
3 Company's earnings have been paid out in support of the Parent company's dividend
4 requirement in order to fund the eminent domain litigation, resulting in little or no
5 growth in retained earnings. Notably, the Parent company dividend has been raised
6 only once (a modest 2.3%) in 5 years in contrast to the industry norm of annual
7 increases and at a rate twice such amount. Until the eminent domain expenditures
8 come to an end and the Parent has a more normal and predictable level of earnings
9 expectations, it will be difficult to access the equity markets.

10 **Q. What is the implication to the Company of a highly leveraged capital structure?**

11 A. A highly leveraged capital structure introduces a new dimension of financial risk in
12 the Company's overall risk profile. Such financial risk, when considered in the light of
13 the Company's substantial business risk (as discussed later in my testimony) makes
14 it especially critical that the Company be afforded rate relief in amounts necessary to
15 provide an opportunity to earn a reasonable return on capital and to access debt and
16 equity capital at reasonable costs and terms.

17 **Q. Would you please discuss the overall rate of return that the Company is**
18 **requesting in this rate proceeding?**

19 A. Yes. Section 15, Schedule 1 summarizes the Company's capital structure as well as
20 the proposed component costs for long-term debt and common equity. The
21 Company is requesting that the Commission authorize the Company to earn an
22 overall rate of return on investment (ROI) of 7.81%. The 7.81% weighted average
23 cost of capital is comprised of two components: (i) 3.06% for the cost of long-term

debt, and (ii) 4.75% for the return on common equity. This is based on a cost of debt of 5.30% applied to the pro forma debt ratio of 57.8% and a cost of equity of 11.25% applied to the pro forma equity ratio of 42.2%.

Q. Please describe your methodology in determining the Company's embedded cost of long-term debt.

A. I have used the embedded actual cost methodology. Under this approach, the actual annual interest expense for each debt issue is computed and added to the annual amortization of related issuance costs. The totals for all long-term debt issues are added. The sum total amount is divided by the total principal balance outstanding at the end of the test year, as adjusted. This produces a weighted average cost of long-term debt.

Referring to Section 15, Schedule 5, the weighted average cost of long-term debt is 5.30% based on total annual interest and amortization costs of $3.1 million and on a total principal balance outstanding of $58.2 million.

Q. What is the return on common equity that the Company is seeking in this rate proceeding?

A. The Company is seeking a return on common equity of 11.25% on its pro forma December 31, 2007 common equity balance of $42.5 million as shown in Section 15, Schedule 1.

Q. Has the Company retained an outside expert witness for the return on (cost of) common equity?

A. Yes. The Company has retained Mr. Harold Walker as its expert witness for the return on (cost of) common equity. It is Mr. Walker's testimony that the Company

should be authorized to earn a return on common equity of 11.25%. Please refer to Mr. Walker's pre-filed direct testimony for a detailed analysis and discussion in support of this recommended return on common equity.

Q. What factors do you believe are most critical for the Commission to consider in establishing the Company's ROE?

A. I believe the Commission must consider three critical factors in establishing the Company's ROE, in addition to the other matters directly addressed by Mr. Walker in his testimony. The first factor is the ROE must meet long-established standards for a fair rate of return. Second, capital market participants including especially debt and equity investors carefully monitor and analyze the regulatory climates and decisions involving utility companies. Market participants' views of regulation and changes in regulation are quickly incorporated into utility security prices, which bear directly on cost of capital. Third, ROE decisions bear directly on costs to consumers and business investment in the State.

As I will discuss below, the Company is in a period of higher risks, both business risks and financial risks. Financial markets have perceived prior decisions by this Commission in the Company's rate cases to be supportive. Continuing support is critical for maintaining Pennichuck Corporation's (the "Parent") common stock price and the Company's borrowing costs, and for preserving access to capital at reasonable costs and terms for the Company. Such support has taken on magnified importance as the Company has conducted and continues to conduct its major capital improvements program that are effectively doubling its rate base. Even with fair rate treatment, the Company must finance the majority of its capital

1 improvements from external sources. Given such heavy reliance on external
2 financing, it is especially important that the Company have broad and unfettered
3 access to debt and equity markets.
4 The Company's ability to borrow funds is limited under virtually all of its outstanding
5 loan agreements to 65% of capitalization, 60% of net property, plant, and equipment,
6 and a 1-1/2 interest coverage ratio. Thus the Company's ability to achieve 100% of
7 its external financing requirements is directly tied to receipt of adequate rate relief.
8 Absent such treatment, the Company would, in all likelihood, be forced to drastically
9 curtail and/or suspend its capital improvements program. Suspension of the program
10 would place the Company at risk of failing to meet federally mandated safe drinking
11 water standards. Although the historical rate relief received by the Company does
12 not give me reason for concern that this would occur, I felt it was important for the
13 Commission to understand the critical point at which the Company stands in terms of
14 its ongoing financial requirements and constraints. If the Company were to find itself
15 in such circumstances, however, I believe that costs for consumers would actually
16 increase and further investment in the Company would be discouraged.
17 **Q. Earlier in your testimony you referred to the principal forms of risk for water**
18 **utilities, namely business risk and financial risk. Please elaborate on these**
19 **concepts.**
20 A. Business risk refers to the risks inherent in operating and managing an enterprise.
21 The primary categories of business risk for water utilities are: stability and
22 consistency of regulation including allowed ROEs, service area demographics, levels

and predictability of earnings and cash flow, company size, business strategies, managerial experience and capability, competition, and contingencies.

Q. How do investors measure business risk?

A. The most widely, publicly available business risk "metrics" are the individual company and industry business risk profiles which are published and maintained by Standard & Poor's Corporation ("S&P"). The S&P business risk profiles are measured on a scale of 1 (lowest risk) to 10 (highest risk).

Q. How do the S&P business risk profiles for water utilities compare with electric and gas distribution utilities?

A. Utilities engaged primarily in distribution and/or transmission (electric, gas, and water companies) are typically assigned a business risk profile in the range of 1-4. Companies with significant merchant energy exposure (i.e., non-contracted power generation, pipelines, and/or storage) are assigned higher business risk profiles in the range of 5-7 or higher. At one time, there was the perception that electric and gas utilities were riskier than water utilities. That is no longer the case. Electric and gas distribution companies are currently enjoying periods of greatly reduced construction programs, increasing amounts of positive free cash flow, and limited or no requirements to access external capital. Water utility companies, on the other hand, continue to face increasing construction programs to meet regulatory requirements (which are largely non-revenue producing), negative free cash flow, and recurring requirements to access external capital. The result for water utility companies is frequent periods of revenue deficiencies and the resultant need to frequently seek relatively large amounts of rate relief. Water utility companies are

1 clearly more dependent upon (and exposed to the loss of) continuing regulatory
2 support.
3 **Q. What is your opinion of the Company's specific business risk profile in**
4 **comparison with the overall water utility industry?**
5 A. There are a number of Company specific factors that magnify its business risk profile
6 relative to its peer group. The first factor is the Company's small size. As of
7 December 31, 2007 the Parent company's market capitalization of approximately
8 $100 million ranks last among publicly traded water utility companies and is many
9 times smaller than the average for its peer companies. Small size magnifies the
10 impact of certain unavoidable fixed costs, such as compliance with Sarbanes-Oxley.
11 Another unique business risk facing the Company is the City of Nashua's eminent
12 domain action. The Parent's financial statements reflect the tremendous level of
13 expense that it has incurred to defend against this action. These costs were incurred
14 because of the Company's need to defend its franchise and ensure that both the
15 Company's and its customers' interests are fairly represented. Subject to the
16 Commission's ruling and the potential for appeals, these costs may continue for the
17 foreseeable future. These costs must be expensed for accounting purposes (absent
18 rate treatment) and have reduced the Parent's earning per share as follows: over
19 10% in 2003, almost 30% in 2004, about 75% in 2005, 71% in 2006, and 13% in
20 2007. Additional costs may be incurred in 2008 and thereafter depending on the
21 Commission's ruling and the subsequent steps taken by the parties. Beyond direct
22 costs, Nashua's legal action has produced and will continue to produce a major drain
23 on management time and distraction among Company stakeholders. Although, to

1 date, none of these costs have been charged to the Company, they nonetheless
2 directly affect investors' perception of the risk they face in investing in the Company
3 and the Parent.

4 **Q. Are there other risks that the Company faces?**

5 A. Yes. A third business risk factor unique to the Company is the large relative
6 magnitude of its capital improvements program and associated external financing
7 requirement. As stated earlier, the ongoing capital improvements program
8 represents a doubling (100% increase) of the rate base. These amounts have
9 placed the Company in a negative free cash flow position and have necessitated
10 regular "trips" to the capital markets for external capital. By comparison, electric and
11 gas distribution companies are increasingly able to limit capital programs to
12 "maintenance" levels (5-10% per annum increases) which can be funded largely from
13 internal cash flow.

14 **Q. Please explain what you mean by financial risk.**

15 A. Financial risk reflects the assessment of the Company's corporate financing policies
16 and practices including: liquidity (i.e. credit lines), debt and equity capitalization, and
17 dividend policy, all in relation to the Company's operating and capital spending plans.
18 More specifically, financial risk considers and seeks to measure the Company's
19 ability to finance its capital additions program while meeting its debt obligations and
20 dividend requirements on a timely and consistent basis. S&P has developed a
21 number of key ratios (credit benchmarks) which quantify financial risk by business
22 risk category. Other things being equal, the higher the business risk the higher the

1 credit benchmarks necessary to achieve an overall S&P bond rating. The S&P credit
2 benchmarks are summarized in Section 11, Page 15, Table 2.

3 **Q. Does the Company have a credit rating for its debt?**

4 A. Yes. In the fall of 2005 in connection with its $50 million tax-exempt bond issue, the
5 Company sought and obtained a credit rating from Moody's Investor Service.

6 **Q. What is the credit rating for the Company's debt?**

7 A. Moody's assigned a credit rating of Baa3 to the Company's senior debt obligations.
8 This rating is the lowest gradation in the category known as "investment grade" debt.
9 A one notch or greater decline in the credit rating would place the Company's debt in
10 the "non-investment grade" category, also known as junk bonds.

11 **Q. What are the primary factors/determinants for Moody's assigned credit rating**
12 **of Baa3?**

13 A. According to Moody's, the Company's Baa3 credit rating reflects "...reasonably
14 supportive regulatory treatment by the Commission, which is expected to continue..."
15 and the Company's use of "...equity funding for a portion of its large capital spending
16 program that will increase its regulated rate base..."

17 **Q. Does the rating take into consideration particular challenges facing the**
18 **Company?**

19 A. Yes. The rating considers several challenges including the Company's significant
20 capital additions program, the need for adequate rate relief to maintain financial
21 ratios, the small size of the Company, and the costs and uncertainties associated
22 with ongoing eminent domain proceedings.

23 **Q. What are the primary factors that could result in a downgrading?**

1 A. The primary factors that could result in a downgrade include "...unsupportive
2 regulation..." that results in deterioration in cash flow ratios and coverages as well as
3 "...higher legal costs or potentially adverse outcomes for the eminent domain
4 proceeding..."

5 **Q. What are the likely consequences should the Company's credit rating slip?**

6 A. Should the Company's rating slip to "non-investment grade" status, its cost of capital
7 would rise considerably and its access to capital at reasonable costs and terms
8 would be severely curtailed.

9 **Q. In addition to the debt credit rating agencies, do equity analysts cite the**
10 **importance of supportive regulatory treatment?**

11 A. Yes. The two most prolific firms specializing in water utility equity securities are
12 Janney Montgomery Scott and A.G. Edwards. In their reports on the Company,
13 Janney has noted "...Regulation remains a focal point for traditional utility investors.
14 New Hampshire regulation appears responsive to the state economy's need of being
15 supported by a vibrant utility infrastructure. New Hampshire regulation appears likely
16 to be supportive of timely and compensatory rates that should continue to attract
17 utility investment..."
18 A.G. Edwards (now Wachovia) has commented "...Water utilities have and will
19 continue to incur substantial capital expenditures in the upgrade of treatment,
20 transmission and distribution facilities in order to remain compliant with ever-stricter
21 quality standards...Timely rate increases...are needed for earnings to have an
22 opportunity to grow. We believe investor-owned water utilities will continue to receive

1 the necessary rate increases to recognize the much-needed investments in water
2 utility facilities..."

3 **Q. What other factors are relevant for the Commission's consideration of this**
4 **filing?**

5 A. As mentioned previously, the Company has been effectively precluded from raising
6 equity capital attributable to significant uncertainties surrounding the outcome of the
7 eminent domain action. Its only opportunity to source new equity has been a $2.25
8 million after-tax gain from the sale of assets owned by a non-regulated sister
9 company that was transferred by the Parent to the Company. As a result, the
10 Company has been required to issue $24 million of new debt subsequent to its most
11 recent rate settlement to fund its capital improvements program. Its significant
12 reliance on debt financing has produced a significantly more highly leveraged capital
13 structure in comparison with its peers and a heightened level of financial risk.
14 Ultimately, the Company will need to address its highly leveraged capital structure.

15 **Q. Do you have any other factors to highlight?**

16 A. Yes. The Company recognizes the magnitude of the rate increase precipitated by its
17 capital improvements program for federally mandated facilities. The Company has
18 taken great efforts to manage this program across a number of years in order to
19 mitigate the risks and the costs of concentrating its improvements. At the same time,
20 the Company has designed its filing to effect staged ("step") increases in rates in a
21 concerted effort to mitigate what might be considered the "rate shock" had the full
22 amount been requested at one time.

23 **Q. Would you please summarize your rate of return testimony.**

1 A. The Company is seeking an overall rate of return of 7.81%, comprised of an
2 embedded cost of long-term debt of 3.06% and a 4.75% return on common equity as
3 detailed in Mr. Walker's testimony. The Company has entered a crucial new phase in
4 its 150 + year operating history. The Company has embarked on a multi-year capital
5 improvements program driven largely by federal mandates which will approximately
6 double its rate base. Given its modest levels of internal cash flow relative to its
7 capital improvements, the Company has relied heavily on its ability to raise debt and
8 equity capital. It is equally critical that the Company achieve access to capital at
9 reasonable costs and terms. Regulatory support, consistent with prior decisions and
10 with investor's current expectations, in the form of reasonable rate relief including a
11 fair return on common equity, is absolutely necessary. .
12 **Q. Does this complete your direct testimony?**
13 A. Yes.
14