STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

City of Nashua: Taking Of Pennichuck Water Works, Inc.

Docket No. DW 04-048

DIRECT TESTIMONY OF ROBERT F. REILLY

January 12, 2006

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INTRODUCTION OF ROBERT F. REILLY AND WILLAMETTE MANAGEMENT ASSOCIATES

Q. Please state your name and business address.

A. My name is Robert F. Reilly. My business address is 8600 West Bryn Mawr Avenue, Suite 950-N, Chicago, Illinois 60631-3505.

Q. By whom are you employed and what position do you hold?

A. I am an appraiser and am employed by Willamette Management Associates ("Willamette"), a private company investment banking firm that provides business valuation, economic analysis and financial advisory services.

PURPOSE IS TO ESTIMATE THE FAIR MARKET VALUE OF THE PWW SYSTEM

Q. What is the objective and purpose of your testimony in this proceeding?

A. I understand that the City of Nashua has filed a petition to condemn Pennichuck Water Works, Inc. ("PWW"), which is the subject of this docket before the Commission. I was retained by counsel for PWW to estimate the fair market value of the PWW operating assets as of the date of taking. Since the hearing of this matter is not scheduled until January of 2007, I have prepared this testimony based on financial information as of December 31, 2004 with certain exceptions that will be noted in portions of my report. I will be updating my report based on the most current financial and asset information available as of the date of hearing. I have concluded that as of December 31, 2004, the fair market value of the PWW operating assets is $248,400,000.

Q. When you state that you valued the PWW "operating assets," what do you mean?

A. I valued all of the tangible and intangible property of the PWW operating business. Specifically, the PWW operating assets consist of the water source, storage, treatment and distribution property, as well as engineering records, computer software and hardware and other tangible assets and intangible assets that are necessary to operate the

utility. It is my understanding that this is the property the City of Nashua seeks to condemn. (Throughout this testimony, I will often refer to the PWW operating assets as the "PWW System.")

Q. In connection with your testimony and your fair market value appraisal of the PWW System, did you prepare a report?

A. Yes, I did. My report is dated January 12, 2006 and, along with the cover letter, appendices and exhibits, contains the analytical procedures performed and the value conclusions reached in my valuation analysis. A copy of this report, along with its Appendices and Exhibits, is attached hereto as Attachment RFR-1.

ROBERT F. REILLY'S APPRAISAL QUALIFICATIONS

Q. Have you submitted a current copy of your professional qualifications?

A. I have. It is attached as Appendix "F" to Attachment RFR-1, and I will incorporate that statement of my professional qualifications into this testimony by reference.

1. Professional Designations and Certifications

Q. I would like to briefly highlight a few of your qualifications; can you please identify your professional designations and certifications?

A. I have the following six professional appraisal affiliations and certifications:

(a) Accredited Senior Appraiser (ASA)—American Society of Appraisers, in business valuation;

(b) Certified Business Appraiser (CBA)—Institute of Business Appraisers;

(c) Accredited in Business Valuation (ABV)—American Institute of Certified Public Accountants;

(d) Certified Review Appraiser (CRA)—National Association of Review Appraisers and Mortgage Underwriters;

(e) Certified Real Estate Appraiser (CREA)—National Association of Real Estate Appraisers; and

(f) Certified Valuation Consultant (CVC)—National Association of Review Appraisers and Mortgage Underwriters.

Also, I am a state certified general appraiser in about twenty states, including New Hampshire, California, Georgia, Idaho, Illinois, Kentucky, Michigan, New Mexico, New York, Oregon, Utah, and Virginia. I am also a state certified member of the Appraisal Institute.

In addition to these appraisal qualifications, I also hold the following five accounting and finance designations and certifications:

(a) Chartered Financial Analyst (CFA)—Association of Investment Management and Research;

(b) Certified Public Accountant (CPA)—Licensed in Ohio and Illinois;

(c) Certified Management Accountant (CMA)—National Association of Certified Management Accountants;

(d) Accredited Tax Advisor (ATA)—Accreditation Counsel for Accountancy & Taxation; and

(e) Enrolled Agent (EA)—licensed to practice before the Internal Revenue Service.

2. Publications in the Field of Business Valuation

Q. I understand that you literally wrote the book on business valuation; what have you published?

A. I am extensively published in the field of business valuation. Together with Shannon P. Pratt and Robert P. Schweihs, I have co-authored two textbooks:

(1) *Valuing a Business, The Analysis and Appraisal of Closely Held Companies*, 4th ed. (McGraw-Hill 2000), and

(2) *Valuing Small Businesses and Professional Practices*, 3rd ed. (McGraw-Hill 1998).

Valuing a Business is considered a very important work in the field of business valuation. Also, together with Robert P. Schweihs, I have co-authored or co-edited six other textbooks:

(3) *Handbook of Advanced Business Valuation* (McGraw-Hill 2000),

(4) *The Handbook of Business Valuation and Intellectual Property Analysis* (McGraw-Hill 2004),

(6) *Valuing Intangible Assets* (McGraw-Hill 1999),

(7) *Valuing Professional Practices: A Practitioners Guide* (Commerce Clearing House 1997);

(8) *Valuing Accounting Practices* (John Wiley & Sons 1997); and

(9) *Guide to ESOP Valuation and Financial Advisory Services* (Willamette Management Associates Partners 2005).

Additionally, I have written chapters in other textbooks related to property tax valuation, ESOP valuation, family law valuation, etc. Moreover, I have authored a little more than 300 articles published in various professional journals.

3. Range of Valuation Experience—Including Utility Companies

Q. You stated earlier that you are an appraiser; generally, what type of practice do you have?

A. My practice includes valuation consulting, economic analysis, transfer pricing and financial advisory services. The scope of my experience can generally be gathered from my statement of professional qualifications. As can be seen in that general statement, I

have a broad range of valuation experience and have valued numerous types of business entities and securities.

Q. Understanding that you have a broad range of experience, do you have any experience, specifically, in valuing a utility company?

A. Yes.

Q. Can you describe your experience in that regard?

A. I have been accepted as an expert in the field of utility valuation approximately twenty times (either by a court or other tribunal). I have appraised the fair market value of water and wastewater companies, electric utilities, gas utilities and telecom utilities. As to water companies in particular, five or six times, I have appraised the fair market value of water companies in the context of a voluntary sale. I have also appraised the fair market value of water companies in the context of a forced sale or condemnation effort five times, not including this valuation.

4. Testimony in New Hampshire

Q. Have you testified in state or federal court in New Hampshire?

A. I have testified in both state and federal court in New Hampshire and have been accepted by these courts as an expert in business valuation. While I have testified before a number of other state public utilities commissions, I have not testified before the New Hampshire Public Utilities Commission. I have testified in a number of other venues on a range of topics which are virtually as broad as my valuation experience.

FORMATION OF THE APPRAISAL OPINION ON THE PWW SYSTEM

1. The PWW System Generally and Reilly's Inspection

Q. Can you generally describe the PWW System?

A. My report includes a brief description of the PWW System at Attachment RFR-1 at pages **10-14.** A more detailed description is included in the testimony of Harold Walker and the in the testimony of Richard Riethmiller. Generally, the PWW System has the following characteristics:

- 25,000 customers in Nashua and in limited areas of ten surrounding New Hampshire municipalities west of the Merrimack River;
- Four primary water sources (Holt Pond, Bowers Pond, Harris Pond, and Supply Pond) and one secondary water source (the Merrimack River on permit from the U.S. Corps of Engineers);
- Water treatment plant;
- 57 bedrock and gravel wells, including those located at booster stations;
- 36 pump stations;
- 10 concrete and steel covered tanks; and
- 425 miles of transmission and distribution mains, 23,100 services, 24,562 meters and 2,464 hydrants.

In order to function as a going business, moreover, the PWW System also has a number of business assets which I refer to as intangible assets. These include such items as distribution maps, engineering drawings, work orders and other records and reports; contracts, licenses and permits; computer software systems; and a trained and assembled workforce. Each of these tangible assets and intangible assets is necessary to operate the PWW System.

Q. What steps did you take to gather information relevant to your appraisal of the PWW operating assets?

A. I took the usual due diligence steps associated with an engagement to appraise utility property. Those due diligence steps included:

- identification of tangible assets and intangible assets associated with the PWW System;
- interviews of various members of PWW management;
- personal inspection of the PWW System;
- review and analysis of a number of documents, including PWW financial statements, budgeted financial statements, annual reports to the PUC, other regulatory filings, responses to an information request from the management and employees of PWW, and an appraisal of the operating real estate and real property;
- investigation of sources and information relating to recent acquisitions of guideline water utilities; and
- review of information related to the national economy, the Nashua regional area economy and the water utility industry.

Q. Did you personally inspect the PWW System?

A. Yes. In this case, the City of Nashua is seeking to condemn the assets of PWW. (In other words, the City is not seeking to acquire PWW's stock and debt.) As a result, I was retained to value the PWW operating assets that the City seeks to condemn. Given that the purpose of the assignment was to appraise the PWW operating assets, it was critical that I both observe and understand what those assets are.

2. The PWW System is Special Purpose Property

Q. Are you familiar with the concept of "special-purpose" property?

A. Yes.

Q. Based on your inspection, are the PWW assets special purpose property?

A. In this instance, and as can be seen in the general description above, the PWW assets exist for the special purpose of supplying potable water and fire protection to the residents of Nashua and ten other New Hampshire municipalities throughout Southern and Central New Hampshire. As such, the PWW operating assets constitute what is referred to in the appraisal context as "special-purpose" property. This simply means that these assets are so inextricably intertwined with their purpose that they cannot be used for anything other than what they were designed for: water supply. Because special purpose property can only be used for one specific purpose, there is often a lack of a readably ascertainable market for the property. Therefore, the appraisal literature and the professional appraisal courses note that special-purpose properties generally are not subject to the sales comparison approach. This is because of the lack of a meaningful number of sufficiently comparable sales. Therefore, when ascertaining the fair market value of public utilities such as is required in condemnation cases, appraisers most commonly rely on the cost approach.

3. The Appropriate Appraisal Standards are USPAP

Q. What professional appraisal standards apply to your appraisal of the PWW assets?

A. I have developed my analyses, opinions, and conclusions, and prepared my report, in conformity with the Uniform Standards of Professional Appraisal Practice (USPAP), as promulgated by the Appraisal Foundation.

Q. Why is USPAP important?

A. Appraisal standards are critical because they establish an accepted set of standards against which to measure an appraisal report. In essence, the standards are the baseline of acceptability. The USPAP standards are endorsed by numerous appraisal

organizations, and are the most widely accepted and stringent professional standards for the appraisal profession as a whole. For example, federal regulations require that all business valuations prepared for any federally related purpose comply with USPAP standards.

4. Coordination with Other Professionals

Q. In your appraisal, have you been assisted by anyone not on your staff?

A. Yes. Mr. Richard Riethmiller (an independent consultant) and Mr. Harold Walker with Gannett Fleming, Inc. ("Gannett Fleming") were retained by counsel to conduct an engineering analysis of the PWW tangible assets. Mr. Russ Thibeault (with Applied Economic Research) was retained to appraise the land and cross country easements, which I may generally refer to as the operating real estate and real property interests. I understand that each of these gentlemen will be submitting the results of their work to the Commission, along with prefiled testimony.

Q. Briefly describe the engineering analysis that Mr. Riethmiller and Mr. Walker prepared.

A. For the RCNLD method under the cost approach (explained further below), Mr. Walker prepared and verified a detailed inventory of the PWW tangible assets and estimated the total cost, at current prices, to replace that tangible personal property using substantially similar materials. This cost is referred to as the replacement cost new ("RCN") of the tangible assets.

In conjunction with Mr. Walker, Mr. Riethmiller conducted a study of the PWW tangible assets and quantified the observed (or existing) depreciation of the PWW tangible assets. This is the depreciation component of the RCNLD method. The engineering analysis as a whole is called the RCNLD method, or replacement cost new less depreciation method.

Q. Have you reviewed the Riethmiller and Gannett Fleming analysis and the Thibeault real property appraisal?

A. Yes. I met and closely coordinated my work with Mr. Riethmiller, Mr. Walker and Mr. Thibeault. During the course of this assignment, I had the opportunity to review their methods, procedures and findings. I have relied on and incorporated the results of the Riethmiller, Gannett Fleming, and Thibeault analyses in my report and testimony.

DEFINING FAIR MARKET VALUE, GENERAL APPRAISAL ASSUMPTIONS AND THE APPROACHES

Q. You stated that the purpose of your testimony was to estimate the fair market value of the PWW assets; what is the definition of "fair market value"?

A. "Fair market value" has a common definition. It is typically defined as the price at which an asset would change hands between a willing buyer and a willing seller, when the former is not under any compulsion to buy and the latter is not under any compulsion to sell, and both parties have reasonable knowledge of the relevant facts.

1. Fair Market Value is Not Equivalent to Rate Base

Q. Is "fair market value" the same thing as "rate base"?

A. No. There are significant differences between the fair market value of a company and its rate base, and these two concepts should not be confused or intermingled. Because of the conceptual differences, the "rate base" of a utility does not equate to, and in fact has little logical relation to, the concept of fair market value.

Q. What are the differences between rate base and fair market value?

A. Rate base is an accounting and regulatory concept that represents a statement of the historical cost of some, but not all, specified utility plant in service assets less accounting (or "book") depreciation. This Commission allows a utility to earn a specified allowed rate of return on the original cost of its "rate base." Conversely, fair market value is an

appraisal concept of the current value-in-exchange between a willing buyer and a willing seller. In other words, the difference is a conceptual one:

- rate base is an ***income concept*** that governs the relationship between the regulatory Commission and the utility; and
- fair market value is an ***exchange concept*** that governs the relationship between the utility owner and the entity purchasing the utility.

Q. Are contributions in aid of construction treated differently between rate base and, conversely, a fair market value appraisal?

A. Yes, contributions in aid of construction ("CIAC"), which are familiar territory for this Commission, provide one example of the conceptual differences between rate base and fair market value. Typically, and I understand that this is the case in New Hampshire, CIAC are excluded from the rate base on which the utility is permitted to earn a return. The reason, under the income concept of rate base, is that CIAC are not capital expenditures made by the public utility on which the Commission allows income to be earned.

Conversely, in a fair market valuation, CIAC are, and must be, included in the asset base being valued for exchange. In an exchange, those assets can have substantial value, and that value must be accounted for in the fair market value appraisal. In this case, CIAC for PWW as of December 31, 2004 accounted for a $18,232,000 asset on PWW's balance sheet. That can be found at Attachment RFR-1, Appendix A, page 3 of 21 (Exhibit 3). Ownership of these assets would transfer to any purchaser of the system and these assets have a value in the marketplace. As such, the assets must be included in the fair market value appraisal.

Q. Which is likely to be higher, rate base or fair market value?

A. The fair market value. Utility cash flows are likely to have far greater value in the market place than the net book value of the assets that generate them. Utilities frequently own significant intangible assets and CIAC that are not typically reflected in rate base.

Q. The New Hampshire Supreme Court, in *Southern New Hampshire Water Co., Inc. v. Town of Hudson*, 139 N.H. 139, 142 (1994), stated that PUC regulation "has nothing to do" with determining the total assets it would take to replace a regulated utility—a necessary prerequisite for one of the approaches to determine fair market value; do you agree with that statement?

A. Absolutely. There is a disconnect between the two concepts.

2. Premise of Value is as a Going Concern

Q. What is a premise of value?

A. The "premise of value" represents the analyst's assumption of the most likely set of transactional circumstances that may be applicable to the subject valuation.

Q. Is your appraisal of PWW based on a going-concern premise, a liquidation premise, or some combination of going concern and liquidation?

A. I used a premise of value in continued use, as a going concern devoted to water supply, treatment and public fire protection services. This premise of value represents the highest and best use of the subject operating assets.

3. The Most Likely Population of Hypothetical Willing Buyers Includes Municipalities

Q. Generally speaking, what assumptions does an appraiser have to make about the most likely population of hypothetical willing buyers?

A. A fair market value appraisal must look to the likely composition of the population of hypothetical buyers in order to determine the range of market prices. As the definition of "fair market value" looks to the hypothetical buyer, a fair market value appraisal may not assume any specific or identified buyers. The characteristics of the population of potential buyers is considered in a two-step process:

(1) The appraiser determines what types of buyers comprise the population of hypothetical buyers; and

(2) The appraiser determines which type of buyer within that population will set the range of market prices.

In the case of a going concern business, the buyers with the greatest expected synergies will set the range of market prices for the acquisition. Those synergies can be strategic, operational, and/or financial.

Q. How is identifying a population of hypothetical buyers different from identifying actual potential buyers?

A. Appraisers do not consider who would be the actual likely purchaser when conducting a fair market valuation. For instance, if I were going to sell my home, I could identify a class of potential buyers based on the size of the home and other factors. If it was a small woodsy cottage, my class of buyers may include retired persons, single persons, and higher income individuals looking for a get-away house. But, I would not identify what Mr. and Ms. Smith, or my brother-in-law, or a neighbor would pay for the cottage because that would insert the subjectivity of that buyer's individual motives into the mix. Then, it would no longer be a fair market valuation. Rather, it would become an acquisition valuation specific to that identified purchaser.

Q. What did you conclude in your appraisal about the most likely population of hypothetical willing buyers of the operating assets of PWW?

A. The most likely population of hypothetical willing buyers of PWW would include not-for-profit public entities. This conclusion is based on several facts, including: (1) that the vast majority (around 80%) of the water systems in the United States are owned by public entities; (2) that Pennichuck Corporation is the principal investor owned utility in the geographic territory where PWW is located; and (3) there are a number of public entities in New Hampshire that could acquire the PWW System. These not-for profit public entities would include a city, town, or district (including yet-to-be-formed districts). Thus, the likely population of hypothetical buyers for the PWW System will include the market influences of not-for-profit entities.

Q. But, what if, other than the City of Nashua, there were no other city, town, or district in New Hampshire with any current stated interest in purchasing the PWW System?

A. What any particular public entity has or has not indicated about its interest in the PWW System is not relevant to a fair market valuation. If I inserted what a particular town was saying about its current interest in the PWW System, it would be the same as inserting what my brother-in-law's motivations and thoughts were about the woodsy cottage in my example above—it has no place in the analysis. Appraisal literature and appraisal courses never insert the subjectivity of asking what any particular person's interest is in property subject to a fair market valuation. If an appraiser had to identify every specific purchaser of a particular piece of property before concluding a fair market valuation, he would never finish his assignment. Moreover, as to the current population of not-for-profit public entities, things change and what a particular municipal buyer may or may

not do is driven by the current political environment. That environment could change tomorrow. Finally, an appraiser must include in the population of hypothetical buyers entities that may be formed in the future (yet-to-be-formed public entities) that would have the authority to acquire the PWW System. It would not be feasible to ask these yet-to-be-formed entities what their subjective current interest is in the PWW System—because they do not exist. In short, the subjective interest of any particular buyer is never a question in a fair market evaluation.

Q. Does saying that the most likely population of hypothetical buyers "includes" public entities mean that you are excluding investor owned utilities from the list of potential purchasers?

A. No, they are included in the mix of buyers, along with not-for-profit public entities. The reason why the inclusion of not-for-profit public entities is important is because of the second part of the analysis: while the population of hypothetical purchasers includes all types of potential buyers, the appraiser must determine which type of purchaser within that pool will set the range of market prices. For a business valued as a going concern, the market price will be set by the purchasers with the greatest expected synergies. For the PWW System, those purchasers are not for profit entities.

4. The Synergies of Not-For-Profit Public Entities

Q. What advantages or synergies do not-for-profit public entities have over investor owned utilities purchasing a water system?

A. There are a number of synergies for not-for-profit public entities: (1) they are not subject to income tax; (2) they have access to low-cost municipal financing; and (3) they are not subject to a regulatory environment. Moreover, I understand from legal counsel that in New Hampshire there would be substantial property tax benefits to several of the

hypothetical not-for-profit public entities (as compared to an investor owned utility purchasing the PWW System). For any assets located within the boundaries of the purchasing city, town or district, the purchasing public entity would enjoy a total exemption from property taxes for both real estate and improvements. For those assets located outside the purchasing city, town or district, the purchasing public entity would only be required to make a payment in lieu of property taxes equal to the tax on the assessed value of the land only (*i.e.*, not on the buildings or other improvements) that it owns. Obviously, as the vast majority of the PWW System is comprised of property which is not unimproved land—the water treatment plant, the wells, the pump stations, the tanks, the transmission and distribution mains, the hydrants, etc.—this is a significant advantage. By way of example, the total property tax incurred by PWW in 2005 that was attributable to the land (only) that it owns was $138,049.00.

Q. By considering the advantage or synergies of not-for-profit public entities, are you assuming, then, that the purchaser is Nashua?

A. Not at all. I am assuming that the population of potential buyers includes several not-for-profit public entities; the advantage or synergies of these not-for-profit public entities will then impact the fair market value of the system.

Q. On the same subject, does it change your analysis of the advantages or synergies applicable to a not-for-profit public entity that the City of Nashua has indicated that, if it acquires the PWW System, it will make a voluntary payment in lieu of taxes in an amount equal to what PWW has been paying for the PWW System?

A. Not at all. As I indicated earlier, what the City of Nashua currently maintains it will or will not do if it purchases the property cannot enter into a fair market valuation. This

would insert the subjectivity of the current political environment into the analysis. This would be relevant only if I were performing an acquisition valuation as to the City of Nashua. This is because, in that event, I would be valuing what the PWW System was worth to the City, not what the PWW System is worth to the market. In a fair market valuation, the actual, current, and subjective intent of any particular buyer is simply not relevant.

Q. How do these "advantages" or synergies of not-for-profit public entities impact the fair market value of the system?

A. In the case of the taxes, a not-for-profit pubic entity buyer will simply have less expense than the for-profit counterpart. As to the regulatory environment, the municipality will not have the constraints on rate-making that PWW is currently subject to. As to financing, the municipal buyer will have access to lower cost financing for the purchase and subsequent operations that is generally available to private entities. As a result, the municipal buyer generally can pay more for the system than the private entity purchaser.

Q. How does the municipal buyer's ability to pay affect the fair market value of the property?

A. Because the other purchasers will be aware of the presence of a not-for-profit purchaser, and the attendant synergies of that buyer, the competitive bidding of these not-for-profit purchasers will drive the price. Any other buyer in the population will have to out-bid those not-for-profit entities in order to acquire the system; thus driving up the price.

5. The Three Basic Approaches for Determining Fair Market Value

Q. After you determined the premise of value representing the highest and best use of the subject operating assets was in continued use, as a going concern, and that the likely

population of hypothetical willing buyers includes not-for-profit entities, how did you estimate fair market value generally?

A. The three basic approaches for the fair market value appraisal of a business enterprise are:

1. The asset-based approach, which focuses on the current value of component assets;
2. The income approach, which focuses on earning capacity of the enterprise; and
3. The sales comparison approach, which focuses on market transactions of comparable or guideline properties.

Assuming the availability of appropriate data, the fair market value appraisal requires consideration of all three approaches.

SYNTHESIS OF THE FAIR MARKET VALUATION OF PWW ASSETS

Q. What is your estimate of the fair market value of the PWW assets? Can you generally describe how you performed your appraisal?

A. My Valuation Synthesis and Conclusion is attached as Exhibit 1 to my report at RFR-1. My conclusions are set forth below:

APPROACH	METHOD	VALUE INDICATOR (ROUNDED)	WEIGHT
Asset-Based Approach	Asset-Accumulation	$253,800,000	60%
Income Approach	Discounted Cash Flow	$240,200,000	40%
Total for PWW System		**$248,400,000**	

In addition to the asset-based and income approaches, I also performed a sales comparison approach, using the guideline merged and acquired company method.

However, by definition, the sales comparison approach requires comparable sales. I examined the available data related to known sale transactions, and I concluded that this approach was entitled to no weight. This is because the guideline acquisitions were simply not sufficiently comparable to this system to provide any meaningful value indications for the PWW System. I will explain this in more detail later in my testimony.

THE ASSET-BASED APPROACH/ASSET ACCUMULATION METHOD

Q. I would like you to discuss the three approaches individually, starting with the asset-based approach; how is the asset accumulation method under that approach performed?

A. The asset accumulation method involves the discrete valuation of the individual operating assets. First, a discrete appraisal of the various categories (or bundles) of assets is made, using the most appropriate valuation procedures for each asset category:

1. net working capital
2. real estate and real property interests
3. tangible personal property
4. intangible personal property

Then, the values of the categories or bundles of assets are summed to estimate the total value of the operating assets.

1. Net Working Capital is Valued at the Accounting Book Value for a Value of $300,000

Q. Please discuss each of those categories in turn; what does the "current assets" category include?

A. Net working capital includes the net of current assets, such as accounts receivable, materials and supplies, and prepaid expenses, and current liabilities, such as accounts

payable, customer deposits, and accrued liabilities. A complete list of current assets is included in my Report.

Q. How did you value the net working capital, as stated above, of PWW?

A. I used the accounting book value of the PWW net working capital and estimated that the accounting book value was approximately equal to the fair market value, or approximately $300,000 rounded.

2. Real Estate and Real Property Interests Were Valued by Russell Thibeault at $12,902,500.

Q. Did you also appraise the real estate and real property interests of PWW?

A. I relied on the conclusions of Mr. Thibeault. That analysis indicated that the fair market value of the land and cross country easements owned by PWW is $12,902,500.

3. Tangible Personal Property Was Valued by Mr. Riethmiller and Gannett Fleming Using the Cost Approach at $412,000,000 (Rounded)

Q. What methodology did you rely on to value the individual tangible and intangible personal property of PWW?

A. I relied on the cost approach.

a. Replacement Cost New Less Depreciation ("RCNLD")

Q. How are cost estimates typically conducted in the appraisal profession?

A. There are generally accepted methods under each appraisal approach. Within the cost approach, there are several generally accepted methods. Each method uses a similar type of cost. Replacement cost and reproduction cost estimates are the most relevant to a fair market value determination.

Q. Can you explain the difference between a replacement cost and a reproduction cost?

A. Yes. The reproduction cost new of an asset is the total cost, at current price, to construct an exact duplicate or replica of the subject asset. This duplicate would be created using

the same materials, standards, design, layout, and quality of workmanship used to create the original asset.

The replacement cost new of the asset is the total cost to create, at current prices, an asset having equal functionality or utility of the subject asset. However, the replacement asset would be created with modern methods and constructed according to current standards, state-of-the-art design and layout, and the highest available quality of workmanship. Accordingly, the replacement asset may have greater utility than the subject asset. "Replacement cost new" typically establishes the maximum amount that a prudent investor would pay for a fungible asset.

Of course, both "reproduction cost new" and "replacement cost new" include all hard costs, soft costs (including interest during construction), developer's profit, and entrepreneurial incentive related to the development of an asset.

Q. How is the reproduction cost new or the replacement cost new used in the appraisal?

A. Once the subject asset's replacement cost new or reproduction cost new is estimated, the cost measurement is adjusted for losses in economic value due to all forms of depreciation. This method is referred to as "RCNLD" for Replacement (or Reproduction) Cost New Less Depreciation.

b. The RCNLD Engineering Analysis

Q. Has a replacement cost valuation of PWW's tangible assets been prepared?

A. Yes. As I explained above, I coordinated the cost valuation component with independent consultant Mr. Richard Riethmiller and Mr. Harold Walker of Gannett Fleming. In coordination with Mr. Riethmiller, Mr. Walker and Gannett Fleming inventoried the tangible assets of the PWW System, and computed the cost, at current prices, to replace the PWW System. This is the RCN component. Mr. Riethmiller quantified the observed

or existing depreciation for the assets of the PWW System. In accounting for the observed depreciation, Mr. Riethmiller determined the extent of physical depreciation and functional obsolescence (including technological obsolescence) of the tangible assets. Mr. Riethmiller's quantification of the observed depreciation is then applied to the RCN; the result is the RCNLD.

Q. What is the difference between Mr. Riethmiller analyzing the "observed depreciation" of an asset, and relying on book depreciation?

A. "Observed depreciation" is the existing or actual depreciation of a property, derived from a qualified engineer (such as Mr. Riethmiller), familiar with that class of asset, physically inspecting the actual condition of the property. "Book depreciation" is an accounting concept that is intended to allocate the original cost of an asset over a predetermined time period without regard for the actual physical condition of the asset. Therefore, an asset can be fully depreciated on a company's books (or accounting records), and still have significant value from an observed (or existing) depreciation standpoint. This is best reflected by the fact that PWW has numerous assets that, while fully depreciated on its books, are still in use and providing excellent service to customers. No reasonable person would argue that these assets have no value simply because they have been fully depreciated for accounting purposes.

Q. What was the RCNLD as determined by Mr. Riethmiller of the PWW tangible personal property?

A. $412,000,000, rounded. It should be noted that RCNLD was determined as of December 31, 2004. As I indicated earlier, I will be updating my report to include valuation of all assets added to the PWW System up to the date of hearing.

Q. Is the combined analysis of Gannett Fleming and Mr. Riethmiller the appraisal?

A. No. Once Mr. Riethmiller accounts for the observed depreciation, I have to account for economic obsolescence (if any) in order to arrive at the valuation or appraisal of the tangible asset. Then I incorporated the results from the cost approach into our overall analysis of the fair market value of operating assets of PWW.

4. Discrete Intangible Property Was Separately Appraised at $41,800,000

Q. Before we discuss economic obsolescence, did you also value the intangible personal property of PWW.

A. I did. I separately appraised each of the individual discrete intangible assets, starting with distribution maps and as-built engineering drawings, all the way through a trained and assembled workforce. This is the property that an acquirer of the PWW assets needs in order to operate the PWW System.

Q. How did you appraise these intangible assets?

A. To have consistency within the asset-based approach, I used the cost approach whenever possible (and specifically reproduction cost new less depreciation) to appraise all but one of the intangible assets. Because of the special nature of the water pumping rights, I used the income approach direct capitalization method to value that asset.

Q. Did you prepare the appraisal of the intangible assets yourself?

A. Yes.

Q. As an example, could you describe how you valued the distribution maps and as-built engineering drawings?

A. Yes. These distribution maps and as-built engineering drawings describe the physical PWW distribution systems, which I will call the "maps" for these purposes. The main purpose of the maps is to provide main, gate, and hydrant locations for the daily

maintenance and expansion of the PWW systems. The distribution system consists of a set amount of linear feet of transmission and distribution mains. I was also provided with the current as-built fee (per linear foot) that PWW actually charges to contractors for the engineering, inspection, and preparation of maps and drawings of transmission and distribution mains, in accordance with rates approved by the PUC. The per foot as-built fee is multiplied by the number of linear feet; the result is the indicated RCNLD of the maps and drawings.

As set forth on Exhibit 7 to my report, the indicated RCNLD of the PWW maps and drawings intangible property, as of December 31, 2004, is $6,700,000.

Q. Does that valuation of the maps include depreciation?

A. Implicitly, yes. This is because I only reflected the cost to reproduce the maps and drawings that are actually required for the current operations of PWW. Since the reproduction cost of obsolete maps is not included in the RCN, the functional obsolescence of historical maps that are no longer in active use is not included in the RCNLD. As such, no adjustment for observed depreciation, which in this case is functional obsolescence, is necessary.

Q. Did you follow the same type of approach and methodology with respect to all of the intangible assets.

A. Generally, and with the exception of the pumping rights, yes. The following is a summary of that analysis:

INTANGIBLE PERSONAL PROPERTY	
Asset	**Value**
Distribution Maps & As-Built Engineering Drawings	$ 6,700,000
Water Pumping Rights	$ 24,500,000
Water System Records and Reports	$ 400,000
Synergen Work Order Database	$ 8,100,000
Water Treatment Laboratory Reports and Test Data	$ 100,000
SCADA Computer Software System	$ 1,000,000
Trained and Assembled Workforce	$ 1,000,000
Total Intangible Personal Property, Rounded	**$ 41,800,000**

5. Adjustment for Economic Obsolescence to the Tangible and Intangible Assets of the PWW System

Q. Earlier, you mentioned the concept of economic obsolescence; can you please explain the reason for including economic obsolescence?

A. This is the final step of the cost approach. Economic obsolescence is a question of whether the operating assets are generating enough income to support an expected rate of return based upon the RCNLD value. It can result from a number of events or conditions that are external to, and not controlled by, the current use or condition of the asset. For instance, economic obsolescence can result from a reduced demand for the product or service, increased competition, the imposition of environmental or other regulations, inflation, or high interest rates. As an example, you could build a state-of-the-art water utility in Year 1, which could suffer from economic obsolescence in Year 2 because of the imposition of more stringent environmental regulation, or security requirements, that were not envisioned when the plant was built.

Q. What is the first step taken to determine whether an adjustment should be made to the RCNLD for economic obsolescence?

A. You have to determine, based on the RCNLD, the rate of return that the hypothetical buyer would expect to earn on the assets. As set forth in Attachment RFR-1, Appendix A, Page 14 of 21 (Exhibit 14), I used the capitalized excess earnings method to analyze the total expected return. In the column on the left of that exhibit, I have set forth the value of all of the operating assets as of 12/31/2004, which is the RCNLD before economic obsolescence.

I then assigned the expected rate of return against those assets, which is equal to the weighted average cost of capital, or "WACC" of the hypothetical buyer (I will discuss this in more detail later in this testimony). Based on a WACC of 5%, the PWW operating assets at RCNLD would have to generate $23,350,000 in order to earn an investor the required economic income.

Q. After you determine the expected rate of return, what is the next step?

A. You have to calculate the projected income that the company will actually earn. I concluded that the present value of the average projected EBIT for fiscal years 2005 through 2009 is the appropriate expected income. That amount, as reflected on Exhibit 14, is $8,416,000. You then compare the total return an investor would require to earn on the assets to the amount of income the company is expected to return.

Q. If the required return on the RCNLD of the PWW assets is $23,350,000, and the income that the company is expected to earn is $8,416,000, what does that difference indicate?

A. This indicates that there is an economic income shortfall. Conversely, if the expected income had been higher than the required income, the surplus would be capitalized and called "goodwill".

Q. How does that impact your appraisal under the asset-based approach?

A. You have to compute the economic obsolescence.

Q. How do you do that?

A. I used a direct capitalization of 7%, which is arrived at summing the 5% WACC rate of return for the hypothetical buyer, with an expected long-term growth rate of 2%. In this case, when I capitalized the economic income shortfall of $14,934,000 at a direct capitalization rate of 7%, I arrived at a capitalized income shortfall of $213,300,000, rounded. That is reflected in Attachment RFR-1, Appendix A, page 14 of 21 (Exhibit 14).

Q. How did you conclude an expected long-term growth rate of 2%?

A. This is a conclusion based on several factors, including the company's current projected long-term growth rate, historical increases in consumption and population served by the PWW System, and interviews with PWW management.

Q. How then did you use the capitalized economic shortfall to conclude the economic obsolescence factor?

A. The economic obsolescence factor is simply a percentage of the RCNLD for the subject assets. As reflected in RFR-1, Appendix A, page 15 of 21, (Exhibit 15), you divide the RCNLD of the operating asset subject to economic obsolescence by the capitalized income shortfall. The working capital, real estate and real property interests are not subject to economic obsolescence and are excluded. Making that calculation gives me an economic obsolescence allocation factor of 47%, rounded. This means that the indicated values of the tangible and intangible assets of PWW are reduced by 47%. That reduction is reflected in Attachment RFR-1, Appendix A, page 16 of 21 (Exhibit 16).

6. Indicated Value of the PWW assets under the Asset-Based Approach is $253,800,000

Q. What then is the indicated value of the PWW operating assets under the asset-based approach?

A. Based on the asset accumulation method (and after consideration of economic obsolescence), the fair market value of the PWW operating assets, as of December 31, 2005, is $253,800,000 (rounded). This is presented in Attachment RFR-1, Appendix A, page 17 of 21 (Exhibit 17).

INCOME APPROACH/THE DISCOUNTED CASH FLOW METHOD

Q. Moving to the income approach, what is the theory underlying the income approach?

A. It is premised on the theory that the value of operating business assets is the present worth of its future economic benefits.

Q. What method did you use under the income approach?

A. Under the income approach I used the discounted cash flow method. This method uses the company's financial projections to estimate the present value of the future cash flow that the owner of the subject operating assets will expect to receive.

1. Financial Projections Were PWW's Budgeted Financial Statements (with Adjustments)

Q. What financial projections did you use?

A. PWW provided its budgeted financial statements for the fiscal years ending December 31, 2005 through December 31, 2009. I made adjustments to those budgeted financial statements to account for the expected financial performance of the likely population of willing buyers.

Q. You stated earlier that not-for-profit public entities were included in the likely population of willing buyers; what adjustments did you make to reflect that?

A. The adjustments are itemized in Attachment RFR-1, Appendix A, page 19 of 21 (Exhibit 19). Because public entities are not subject to many types of taxes, I made adjustments to PWW's financial statements to account for the not-for-profit advantages: (1) I did not provide for income tax expenses in the PWW projected results of operations; (2) I added certain other taxes to the PWW projected results of operations; and (3) I added a payment in lieu of taxes equal to 100% of the value of the unimproved land only (*i.e.* not of the buildings or other improvements) of the PWW System.

Q. Why did you add a payment in lieu of taxes equal to 100% of the value of the unimproved land only?

A. As I stated earlier, I understand from legal counsel that for any assets located within a purchasing city, town or district, the purchasing public entity would enjoy a total property tax exemption, including both real estate and improvements. As to those assets located outside the city, town or district, the not-for-profit public entity would only be required to make a payment in lieu of property taxes on the value of the unimproved land only (*i.e.* not on the buildings or other improvements) that it owns. Therefore, the actual acquirer of the PWW System will have to make a payment in lieu of taxes for some percentage of the land which is outside its boundaries. I conservatively assumed a 100% payment in lieu of taxes on the value of the unimproved land, which represents the most a hypothetical public entity purchaser would have to pay in lieu of taxes.

Q. Why were the financial statements adjusted to account for these not-for-profit differences?

A. As I stated earlier, the buyer with the most synergies will set the range of market prices for the group. If you valued the cash flow without making these adjustments, you would

be valuing the present value of the cash flow as to a for-profit, regulated buyer, specifically PWW. But, in this case, the synergies are higher as to the not-for-profit presence and the for-profit buyers will have to account for that in making their bids. To take this into account, you have to appraise the present value of the future income as to the not-for-profit purchaser. Hence, the adjustments were made.

Q. What measure of economic income did you use?

A. I used net cash flow.

Q. Why did you use a five year projection period, followed by a normalized year?

A. There were a number of factors that went into this. First, that was the extent of the available management projections. Second, and more importantly, in that discrete period of time (the five year period) there will be major changes to the PWW assets because of a new treatment plant being constructed; in other words, through fiscal 2009, the PWW fixed assets are changing and this will affect cash flow, rates, and rate base. But, after that period of change, the new treatment plant will be in service and these factors will stabilize. Therefore, I selected the sixth year (2010) as a normal year.

Q. Would it make your projections more accurate if you had a longer period, say ten years, for the discrete period of time before you normalized a year?

A. No. After fiscal 2009, the growth of the system will steady out. Because the growth rate of the normalized year would be the same as any projected years, even if you used a longer period of time, it would not change the ultimate value conclusion.

2. The Discounted Cash Flow Method Generally

Q. Is your income approach set forth in your report?

A. Yes, and the schedules are set forth at Attachment RFR-1, Appendix A, pages 20 and 21 of 21.

Q. Generally, how do you then use that projected economic income to appraise the operating assets?

A. First, I calculated the present value of the net cash flow for that five year projection period by using a present value discount rate of 5%. Then, using an estimated terminal value, which is year six, I calculated the present value of the terminal period net cash flow using a direct capitalization rate of 3%. I then add the present value of the discrete period net cash flow to the present value of the terminal period net cash flow to get to the present value of the operating assets of $240,200,000.

3. The Calculation of the Weighted Average Cost of Capital ("WACC")

Q. How do you arrive at a discount rate to use in the discounted cash flow method?

A. The build-up is shown in Attachment RFR-1, Appendix A, page 20 of 21 (Exhibit 20). The proper discount rate to apply in the discounted cash flow method is the weighted average cost of capital, or "WACC." WACC is the cost of the hypothetical buyer's overall capital and is the weighted average of the costs of all its financing sources in its capital structure. The cost of capital is simply the total expected rate of return that the market requires to attract investment. The WACC accounts for the cost of equity capital (business risk) and the cost of debt capital (financial risk), weighted by its percentage of the market of the buyer's total invested capital that is represented by the respective capital component.

The WACC should reflect the cost of capital of the likely population of willing buyers. For PWW, the likely population of willing buyers includes not-for-profit public entities, which will set the market price. Therefore, the cost of equity capital will be the opportunity cost to a not-for-profit purchaser, and the cost of debt capital will be the cost of debt capital to a not-for-profit purchaser.

Q. Why did you not use the WACC for PWW?

A. This, again, highlights the difference between exchange-based fair market value appraisal and rate base. The WACC for PWW (the seller) would be relevant if the Commission was valuing the rate base of PWW for rate-setting purposes. However, in this case, the Commission is determining the fair market value. For exchange value purposes, the one entity that we know will not be acquiring the PWW System is PWW—because it already owns it. Therefore, PWW's WACC is not relevant.

Q. For the purposes of calculating the WACC, how did you arrive at the cost of debt capital?

A. That was derived from analyzing municipal bond yield averages and represents the rate at which a not-for-profit entity can borrow money. The cost of a debt capital is 4.6% for the potential purchasers of the PWW assets.

Q. The cost of equity capital is based on a build-up model, correct?

A. The cost of equity capital is a function of investment risk. The riskier the investment, the higher the required rate of return must be. To calculate the cost of equity capital, I used the build-up model. This considered a risk-free rate of return of 4.9%, which is simply the long term treasury bond rate. I added to that a long-term equity premium of 7.2%, and a small company equity risk premium of 6.6%, which simply adjusts for the size differential between PWW compared to publicly traded companies. Thus, the cost of equity capital for the hypothetical buyer of PWW is 18.7%.

Q. If your cost of equity is 18.7%, and your cost of a debt capital is 4.6%, how did you determine a WACC of 5%?

A. I considered the capital structure of the most likely population of willing buyers (including not-for-profit public entities), which is made up of nearly 100 percent debt

capital. Not-for-profit public entities, however, can and do use cash to pay for a small portion of the total transaction consideration. Therefore, I used a capital structure of 95% debt capital and 5% equity capital. Hence, using the weighted average of the equity capital and equity capital, the WACC for the hypothetical purchaser of PWW is 5%.

Q. Why did you apply a direct capitalization rate of 3% to the terminal value?

A. The direct capitalization rate of 3% was computed by subtracting the PWW expected long-term growth rate of 2%, which approximates a long-term inflationary growth rate, from the discount rate of 5%. This direct capitalization rate was applied to our normalized year to appraise the terminal value of the PWW System.

4. Indicated Value of the PWW System under the Income Approach is $240,200,000

Q. How then is the ultimate value indicator derived?

A. The present value of the discrete time period, or fiscal years ending December 31, 2005 through December 31, 2009, is summed with the present value of the terminal period.

Q. From the calculations, it appears that the majority of the value of the PWW assets is in the terminal period; why is that?

A. The application of the discounted cash flow method is set forth in Attachment RFR-1, Appendix A, pages 21 of 21 (Exhibit 21). You are correct that the primary component of the value of the PWW assets is in the terminal value. In fact, the total present value of the five year discrete projection period is actually a negative $2,386,000. This is driven by the plant improvements I mentioned earlier, which will be implemented in that time. There is going to be a $60 million upgrade to the PWW System over a five year period; this is somewhat of a unique situation. I have included the improvements to the PWW System that will be completed as of the valuation date (January 2007). However, after

those capital improvements go online, the financial performance of the PWW assets will normalize and has substantial present value. That post-improvement cash flow value is reflected in the terminal value. The terminal value of the PWW assets is $242,546,000.

Q. What was the present value of the PWW operating assets under the income approach?

A. The present value indicator of the operating assets was $240,200,000.

SALES COMPARISON APPROACH/GUIDELINE MERGED AND ACQUIRED COMPANY METHOD

Q. What is the concept of the sales comparison (or market) approach?

A. The market approach assumes that valuation guidance can be found in the analysis of sale transactions involving similar companies.

Q. What method did you use under your sales comparison approach?

A. I used the guideline merged and acquired company method.

Q. Why did you use that method as opposed to the guideline public company method?

A. The major difference between the sales comparison approach methods is in the subject of the appraisal:

- The ***guideline merged and acquired method*** looks to recent acquisitions of guideline companies and uses pricing metrics from those transactions to value the assets subject to the appraisal; and
- The ***guideline public company method***, conversely, uses the stock value of public companies to value the stock of the company subject to the appraisal (in other words, if you were valuing securities, or invested capital, you would use this method).

In this assignment, I was valuing the PWW operating assets. As such, the guideline merged and acquired method is the appropriate method.

Q. How do you identify and use the guideline merged and acquired companies under this method?

A. I identified and selected transactions of guideline water utilities that have been recently acquired. My search process and the subject water utilities are set forth in my Report. The acquisitions are divided into two sets of guideline companies: (1) those companies acquired by investor-owned utilities and (2) those companies acquired by not-for-profit public entities.

1. Data Indicated that the Guideline Companies Were Not Sufficiently Comparable to PWW

Q. What conclusions did you reach under the sales comparison approach?

A. After spending a considerable amount of time examining the data related to these transactions, I have concluded that all of the guideline acquisitions are simply not sufficiently comparable to provide any meaningful valuation data. In my Report, I have set forth the various factors that distinguish these transactions from the PWW System at Attachment RFR-1, Appendix B. As I stated earlier, the theory of the sales comparison approach is that valuation guidance can be found in transactions involving similar companies; but, if the companies are not sufficiently similar, as is the case here, little (if any) weight should be given this approach in the final conclusion of fair market value.

Q. Are you implying that the data you had were not sufficient?

A. No. I had sufficient data to conclude that the known transactions are not sufficiently comparable to provide any meaningful valuation guidance of the PWW assets. There may be other transactions for which sufficient data are not available (because there is no centralized source of data). Without such data, there is an insufficient basis to compare the properties.

2. Available Guideline Transactions Supported the Conclusion that the Not-For-Profits Transactions Demonstrate a Higher Synergy

Q. Did you reach any conclusions about the not-for-profit transactions from the market data you analyzed?

A. Yes. If you compare the pricing multiples for the acquisitions by investor-owned entities with the pricing multiples for the acquisitions by public entities, on average, the multiples are higher for the public entities. Thus, the market data clearly supports the premise that when a not-for-profit entity is in the population of hypothetical buyers, the not-for-profit can and does pay more, and therefore will set the range of market prices as compared to the investor owned utilities.

VALUATION SYNTHESIS AND FINAL CONCLUSION OF VALUE OF $248,400,000

Q. How did you use your value indications under the asset-based approach, the income approach, and the sales comparison approach to arrive at a fair market value conclusion?

A. I weighted the value indications: (1) asset accumulation method at 60% and (2) discounted cash flow method at 40%. As I indicated earlier, I gave the guideline merged and acquired company method no weight.

Q. I would like to explore each of those percentages; why did you weight the asset accumulation method at 60%?

A. There are a number of reasons. While they are all important, an overriding reason is that the assignment was to appraise the operating assets of PWW. The asset-based approach is the best approach for appraising an asset deal because it discretely identifies and individually values all of the tangible property and intangible property subject to the dispute. Also, the asset-based approach directly values the property—as opposed to the indirect valuation of the other approaches, which uses income or other sales as a proxy

for the value of the assets. Finally, the PWW assets are special purpose assets. This is because there is nothing else practically you can do with this system other than water distribution. The cost approach is commonly used to value special purpose property, and the asset-based approach relies heavily on the cost approach to value the individual tangible property and intangible property. Moreover, the quality of the engineering analysis by Mr. Riethmiller and Gannett Fleming and the available data justified giving this approach significant weight. For these reasons, I gave the asset-based approach the most weight.

Q. Why did you weight the income approach at 40%?

A. The PWW assets are income-producing special purpose property. Any buyer of the property will consider the income generating capacity of these business operating assets. This is reflected in the actions of corporate acquirers, who heavily rely on the income approach in evaluating whether or not the corporate acquirer can finance the potential acquisition and whether or not the acquirer can earn an expected rate of return on the acquisition. For these reasons, I gave the income approach significant weight.

Q. Finally, why did you give such no weight to the sales comparison approach in your valuation synthesis?

A. In looking at the guideline companies, I did a comprehensive analysis, both in terms of the connectedness of the timing of the guideline acquisitions and the cross-sectional analysis of the same, and determined that the guideline transactions were simply not sufficiently comparable. For the sales comparison approach to be meaningful, the transactions have to be arm's-length transactions for which meaningful data are available. In this case, despite our due diligence efforts, I could not obtain pricing and financial

fundamental data for acquired systems that are sufficiently comparable to PWW. As such, I assigned this approach no weight.

Q. What was your final conclusion of value?

A. My final conclusion of value was $248,400,000.

Q. Does that complete your testimony?

A. Yes.