

October 8, 2018

Doug Brown
Borough Manager / Secretary
Steelton Borough Authority
275 Christian Street
Steelton, PA 17113

Dear Mr. Brown,

ScottMadden, Inc. (ScottMadden) performed a valuation of the Steelton Borough Authority (the Authority) water operations at the request of management for the purposes of establishing a fair value in accordance with Public Utility Code (66 PA.C.S) – Valuation of Acquired Water and Wastewater Systems for ratemaking purposes. The resulting conclusion of value should not be used for any other purpose or by any other party for any other purpose. This valuation was conducted in accordance with the Statement on Standards for Valuation Services (SSVS) and the Uniform Standards of Professional Appraisal Practice (USPAP). The estimates of value that result from a valuation engagement are expressed as conclusions of value. This valuation has been edited from the original submission to reflect the sale of only the water operations of Steelton and to reflect the amended asset inventory provided by Herbert, Rowland, and Grubic (HRG) on October 4, 2018.

We were restricted or limited in the scope of our work or data available for analysis as follows:

- Some of the original costs of assets for the Authority were aggregated and were not broken down into individual NARUC account numbers; and
- Other original cost information was not available. Because of this, we relied upon the engineering firm used in this transaction, HRG, for their estimation of original cost for these assets.

Based on our analysis, as described in this valuation report, the conclusion of value of the water operations of the Authority as of June 12, 2018 is and \$21,459,590. This conclusion of value is subject to the Statement of Assumptions and Limiting Conditions found in Appendix A and to the Valuation Analyst's Representation found in Appendix B. We have no obligation to update this report or our conclusion of value for information that comes to our attention after the date of this report.

ScottMadden has no financial interest or contemplated financial interest in the property that is the subject of this report.

Respectfully Submitted,



Dylan W. D'Ascendis, CVA, CRRA
Director
ScottMadden, Inc.

Valuation Report

Steelton Borough Authority

June 12, 2018

Smart. Focused. Done Right.®





INTRODUCTION AND PURPOSE

Dylan W. D'Ascendis, CVA, CRRA, Director at ScottMadden, Inc. (hereinafter "ScottMadden") (Full professional qualifications included in Appendix C to this report) has been retained by Steelton Borough Authority (hereinafter, the "Client") to value the water operations of Steelton Borough Authority (hereinafter the "Authority" or the "Subject Interest") in accordance with Public Utility Code ("66 PA.C.S.") – Valuation of Acquired Water and Wastewater Systems for Ratemaking Purposes as of June 12, 2018. The conclusion of value derived as a result of this engagement is valid only for the stated purpose as of the date of valuation. The valuation report does not reflect a value of the Subject Interest under any other circumstances other than those described in this report; therefore, no other purpose is intended or should be inferred.

For consideration in this transaction is a 100% interest in the Authority, which means that the purchaser of the Subject Interest would be able to control the entity's operations going forward. The Subject Interest is not a marketable interest since it is not publicly traded, and it would be difficult to immediately turn the Subject Interest into cash.

ScottMadden has used fair market value as the standard of value for this engagement. The Internal Revenue Service's Revenue Ruling 59-60 recommends the use of fair market value for valuation of corporate stocks on which market quotations are either unavailable or of such scarcity that they do not reflect the fair market value. Fair market value is defined in Section 25.2512-1 of the U.S. Treasury Regulations (Gift Tax Regulations) as:

The price at which property would change hands between a willing buyer and willing seller, neither being under any compulsion to buy or to sell, and both having reasonable knowledge of relevant facts.

The premise of value is an assumption regarding the most likely set of transactional circumstances that may be applicable to the subject valuation. In lay terms, this explains what is going to happen to the Subject Interest after the transaction. There are any number of variations of premise of value, but two general premises of value are Liquidation (the Subject Interest does not continue operating after the transaction) and Going Concern (the Subject Interest continues operating after the transaction). The premise of value applied in this valuation study is Going Concern as there is no indication that the Subject Interest would cease operations after the transaction.

COMPANY BACKGROUND AND OPERATIONS

The Subject Interest is the water operations of the Steelton Borough Authority.

The Authority was created by an ordinance of the Steelton Borough Council, incorporated under the Municipality Authorities Act of 1945, being the Act of May 2, 1945, P.L. 382, as amended by the Commonwealth of Pennsylvania. The purpose of the Authority includes those activities of acquiring, holding, constructing, improving, owning and leasing water, water systems or parts thereof. The Authority is overseen by the Board which consists of five members who are appointed by Borough Council. The Authority employed the Borough to manage and operate the water system through a management agreement, in which the Authority owns, and is responsible for, the management of and charges for water services.

The Authority serves approximately 6,300 customers through 2,421 metered service connections in Steelton and Swatara Township. The existing water system consists of the water treatment plant and the storage and distribution system. The water treatment plant obtains all of its water from an intake in the Susquehanna River and typically treats between 1.6 and 2.4 million gallons of raw water per day (“MGD”), with a capacity of 3.0 MGD. The water distribution system consists of approximately 28 miles of pipe, which ranges from 4 to 20 inches in diameter. The Authority has two interconnections with SUEZ Water Pennsylvania Inc., one on S. 19th Street and another near the finished water storage tanks.

SUMMARY OF VALUATION APPROACHES

The valuation of the Subject Interest as a Going Concern considers several methods. Each method, at times, may appear more theoretically justified in its use than others. The soundness of a particular method is based on the specific circumstances of each case. We are responsible for selecting the most appropriate approach/method of valuation for this case. The commonly used methods of valuation can be grouped into one of three general approaches: The Cost Approach, the Market Approach, and the Income Approach.

Cost Approach

The Cost Approach is a valuation method that typically values the underlying assets of a company to derive their market value. Because this method only focuses on the company’s underlying assets, it fails to reflect the past and projected profitability of the company, as well as the associated risks inherent in the company’s operations. Typically, the analyst would start with the current replacement (or reproduction) cost new of the assets being valued and then deduct for the loss in value caused by physical deterioration, functional obsolescence, and economic obsolescence of those assets to arrive at an indicated market value.

Market Approach

The Market Approach considers comparable transactions of similar utilities in the same general timeframe and general operational area as the company and other market-based data to establish a fair market value. Usually, finding comparable transactions is difficult, if not impossible, since no two companies are identical, nor are they usually timely. In addition, details surrounding utility transactions, particularly private transactions, are incomplete at best. In spite of these challenges, an analyst may be able to pinpoint a relevant multiple of purchase price or transaction value and then apply that multiple to the Subject Interest to derive a value for that Interest. One can also look to the market data of publicly-traded companies comparable in risk to the Subject Interest for an indication of value.

Income Approach

The Income approach provides an indication of value by discounting the expected or future cash flows of a company to a present value. The projected cash flows must account for additional investment and working capital additions and reflect the specific growth potential of the system being valued. The discount rate used to calculate the present value of the company must be derived from market data of similar risk companies. The discount rate must also take into account how the potential acquirer will finance the transaction (e.g. debt, equity, or a combination of debt and equity).

APPLICATION OF THE COST APPROACH

Description of Facilities

Steelton Borough Authority

The description of the Authority's assets is described fully in HRG's "Water System Assessment of Tangible Assets" (attached as Appendix D to this Report), and summarized below:

As mentioned above, the Authority water system is comprised of a water treatment plant and storage and distribution system.

Water Treatment Plant

Originally constructed in 1973, the capacity of the water treatment plant is 3.0 MGD, but it typically treats between 1.6 and 2.4 MGD. All the raw water comes to the water treatment plant from an intake at the Susquehanna River. The treatment process consists of potassium permanganate for disinfection by-products, alum for coagulation, flash mixing, two up-flow sludge blanket clarifiers for flocculation and sedimentation, four multimedia filters and chlorine disinfection. The existing filtration system was also originally installed in 1973 and has been consistently upgraded over the life of the system, most recently in 2017 (new clearwell, for disinfection by-product removal).

Two vertical turbine raw water pumps convey the water from the raw water pumping station to the up-flow clarifier and rapid mix tank. From there, the water flows by gravity through the treatment process into the clearwell. Two centrifugal finished water pumps convey the water from the clearwell to the distribution system. The treatment process continues until the finished water tanks are filled to their maximum operating levels.

Water Distribution System

The Authority's distribution system consists of a network of water distribution piping including approximately 28 miles of pipe ranging from 4 to 20 inches in diameter, one water booster station, two 2-million-gallon finished water storage tanks, and two interconnections with SUEZ Water Pennsylvania Inc., one on S. 19th Street and one near the finished water tanks. The water mains are either comprised of cast iron (75,659 ft) or ductile iron (69,829 ft) pipe.

Condition of Facilities

ScottMadden performed a review and analysis of the fixed capital assets as listed by the Client, and an extensive on-site visit of the above ground facilities on March 27, 2018. Based on that review, it was determined that the Steelton system is in good condition commensurate with its age.

Trended Original Cost Study

The first step in arriving at the fair market value of the assets of the Subject Interest using the Cost Approach derives the "reproduction cost new" for the assets that comprise the Authority. In order to arrive at the reproduction cost new for the Authority's assets, ScottMadden began with the original cost of the assets provided by the Client, and used the Handy-Whitman Index to determine the current reproduction value. The Handy-Whitman Index is prepared specifically for electric, gas, and water utilities, and is the only publication of its kind available to the public. The Index has been published continuously since 1924. The Index is comprised of historical index values for various accounts prescribed by the National Association of Regulatory Utility Commissioners (hereinafter "NARUC") Uniform System of Accounts, as well as for construction, material, and labor, by geographic region of the United States.

The trended original cost method consists of the development of adjustment factors from the time when the asset was put into service to the current date. For example, an average distribution main (NARUC account 331) placed into service in 1985 with an original cost of \$100,000 would be trended forward by the ratio of the index value at the current date divided by the index value at the time of installation. The index value of NARUC account 331 in January 2018 is 790.00, and the index value at 1985 when the assets were installed was 254.00, which means the ratio

applied to the original cost of the distribution main would be 3.11.¹ This would translate into a current cost for the steel main of \$311,024.²

The next step in deriving the fair market value of the Subject Interest using the Cost Approach is to quantify the amount of physical deterioration, functional obsolescence, and economic obsolescence of the assets. Physical deterioration is caused by use, wear and tear, and the aging process. Functional obsolescence is caused by changes in design or construction to create efficiencies not present in the current asset. Economic obsolescence is a loss in value due to external factors not in the control of the Company such as economic conditions. The most common measure of physical deterioration is the reserve held for depreciation, which is based on the asset's remaining life versus its average useful life. Functional obsolescence is measured by comparing the subject asset to a replacement asset with current technology. We have found no significant functional obsolescence for Authority assets. Economic obsolescence is usually measured by market conditions, which have been supportive towards water in the recent past, as well as prospectively, so ScottMadden does not believe there is significant economic obsolescence present in Authority assets. Since the only applicable measure of loss of value is physical deterioration, the useful lives for each asset were determined and reserves for depreciation were calculated for each Authority asset if original costs were available.

Indication of Value Using the Cost Approach

Using the Handy-Whitman Index to trend the original cost, less depreciation of the Authority's assets forward, to replacement cost new, less depreciation, ScottMadden arrived at the reproduction cost new minus depreciation value of \$22,243,034.

As stated above, the value derived from the Cost Approach is based solely on the underlying assets of the Subject Interest, which means it does not take into account the expected cash flows of these assets. Additionally, even though the Handy-Whitman Index takes into account the changes in the cost of various factors over time in different regions throughout the country, it cannot take into account intricacies such as terrain (e.g. mountains in Appalachia versus farmland in Pennsylvania) or changes in development and zoning since original installation. All else remaining equal, different terrains or changes in laws will translate into different timeframes to complete the project, which will directly affect costs.

Also mentioned previously, Some of the Authority's assets were combined under one NARUC account number (predominantly the original water treatment plant, and subsequent upgrades in 2010 and 2017), and therefore, ScottMadden had to make its best guess as to what NARUC account was the most appropriate. In addition, some assets did not have original costs assigned, so ScottMadden relied upon the estimation of original cost provided by

¹ 790.00 / 254.00 = 3.11.

² (790.00 / 254.00) x \$100,000 = \$311,023.

HRG, the commonly used engineering firm, for this analysis. With this in mind, it is ScottMadden's opinion that the value of Authority assets derived by the Cost Approach may be less accurate than if ScottMadden was provided an asset list with itemized original costs by NARUC account numbers for large projects and actual original costs.

APPLICATION OF THE MARKET APPROACH

Market-to-Book Multiple Method

The Market Approach is a valuation technique whereby the value of a company is estimated based on pricing relationships associated with market transactions involving similar companies. A common technique to derive a value using market data would be to apply a market-to-book ratio of a comparable risk group to the book value of the Authority's assets. As shown on page 2 of Schedule 2, market-to-book ratios of the water utility proxy group used to derive the weighted average cost of capital (hereinafter "WACC") in the income approach range from 2.46x to 3.93x book value. Using the original cost less depreciation of Authority assets of \$14,100,852,³ indicated values range from \$34,702,197 to \$55,416,349, with a midpoint of \$45,059,273 as shown on page 3 of Schedule 2.

Comparable Sales Method

ScottMadden also researched transactions involving companies who acquired 100% of a water or sewer interest since 2015. That research returned thirty-one results from around the country, eleven of which were acquisitions in Pennsylvania, which are contained on page 4 of Schedule 2.⁴ A common ratio which can be used to determine Steelton's market value is transaction value per customer connection. The purchase price per customer connection ratios for the relevant transactions are also shown on page 4 of Schedule 2. As shown on page 4 of Schedule 2, the nationwide average purchase price to customer connection is 4.37x, while the Pennsylvania average purchase price to customer connection is 6.97x. Given the Authority's 2,421 water connections, indicated values using this approach range from \$10,569,043 to \$16,865,828, with a midpoint of \$13,717,435 for the Authority.

Indication of Value using the Market Approach

Averaging the midpoints of the market-to-book method and the comparable sales method indicates a value of \$29,388,354 for the Authority assets as shown on page 1 of Schedule 2.

APPLICATION OF THE INCOME APPROACH

ScottMadden performed an independent study of the value of the income generated from service to its customers. The Income Approach employed by ScottMadden is based on the "highest and best use" assumption that the assets of Steelton would be "maximally productive" or profitable if owned by similar entities.

³ From Schedule 1, page 2.

⁴ Transaction details are provided in Appendix E.

We have prepared several financial models to develop the indicated values of the Subject Interest. The underlying data was taken from the Client's financial books and records. Due to the limited purposes of these financial statements, they may be incomplete or contain departures from generally-accepted accounting principles. We have not audited, reviewed, or compiled these statements and express no assurance of them. Following an interview with key staff, we incorporated pro forma changes to the annual operating revenues, operating expenses, and future capital requirements to arrive at a reasonable projection of future cash flows for the Authority.

Operating Revenue Assumptions

The vast majority of Authority revenues are tied to fees for water service. Other revenues are related to tapping fees and other miscellaneous items. Because of this, Authority revenues are dependent on two factors; rate increases and population growth. In regard to rate increases, we assumed a 10% rate increase starting in 2020 every two years until 2032, and then every three years thereafter.

In addition to traditional rate increases, we have contemplated additional revenues through the Distribution System Improvement Charge (hereinafter "DSIC"). Assuming capital improvements throughout the life of the Subject Interest, as will be discussed in detail below, the Authority would be able to earn on those additions in between rate cases up to 7.5% of the approved revenue requirement.

Upon review of US census data and interviews with key staff, ScottMadden has concluded that the population served by the Authority will be flat going forward. Because of this, ScottMadden did not make any further adjustment to the going forward revenues due to population changes. Recurring non-operating and miscellaneous revenues were grown at inflation.

Operating Expense Assumptions

General operating expenses for the Authority are comprised of operation and maintenance expenses. Since the acquiring company will not be tax exempt, we have assumed a composite income tax rate (state and federal) of 28.892%.⁵ All operation and maintenance expenses are assumed to increase at the projected level of the Consumer Price Index⁶ (hereinafter, "CPI") or remain constant into perpetuity. The State and Federal income taxes will be reduced by the tax shield created by its depreciation expense. To simplify, we will assume that book depreciation expense is equal to tax depreciation expense⁷ and multiply depreciation expense by the effective tax rate to derive the value of the tax shield.

⁵ Federal income tax of 21% and Pennsylvania corporate income tax of 9.99%. $(100\% - 21\%) \times 9.99\% = 7.892\%$. $21\% + 7.892\% = 28.892\%$

⁶ ScottMadden employed a CPI projection of 2.2% per year, based on the long-term CPI projection published by Blue Chip Financial Forecasts. see Blue Chip Financial Forecasts, Vol. 36, No. 12, December 1, 2017 at 14.

⁷ Book depreciation expense was assumed to be \$490,000 per year.

Future Capital Requirements Assumptions

HRG provided ten-year capital investment plans for the Authority (Attached as Appendix F to this Report), which I have summarized in Table 1:

Table 1: 10-Year Capital Improvement Plan⁸

Project Description	Estimated Cost
Source Water Monitoring	\$21,000
Total Organic Carbon Monitoring/Removal	\$20,000
Pre-Oxidant System Optimization	\$15,000
Process Control of Chlorine Feed System	\$25,000
Water Treatment Plant Upgrade	\$14,000,000
Automatic Flushers	\$22,500
Additional Chlorine Injection Point	\$450,000
Elimination of Dual Mains	\$25,000
Mixing/Aeration System	\$250,000
Finished Water Pump VFD Optimization	\$60,000
High Service Distribution	\$6,000
SCADA/Process Control	\$200,000
Water Meter Installation	\$50,000
Total One Time Expenses	\$15,144,500
Distribution System Improvements	\$250,000 per annum

For the expected system improvements, I assumed that all of the minor improvements would be completed over the next ten years and that the water treatment plant would be completed at the end of the ten-year period. To accomplish this, I subtracted the \$14,000,000 from the one-time expenses and spread the remainder of the expenditures across the 10-year period, increasing the expenditures each year by CPI. On the tenth year I added the \$14,000,000, also compounded by inflation, to the capital expenditures for that period. For the annual distribution system improvements, I increased the expected yearly expenditure by CPI and extended the period through the entire projection period.

Discount Rate

⁸ In 2018 dollars.

After calculating the expected cash flows, an appropriate discount rate must be calculated in order to arrive at a value of the Subject Interest based on the Income Approach. The discount rate is the investor-required expected rate of return on the assets. An investor in any company needs to be compensated for the risk of that investment, and a higher level of risk equates to a higher required rate of return. The overall rate of return in this instance is defined by the WACC. ScottMadden has calculated a discount rate which relates to the traditional method of financing for publicly-traded water companies, which uses an equal mix between debt and equity capital.

For the common equity cost rate, ScottMadden applied the Discounted Cash Flow (hereinafter “DCF”), Risk Premium (hereinafter “RPM”) and Capital Asset Pricing Models (hereinafter “CAPM”) to a proxy group of publicly-traded water companies and a group of non-regulated companies comparable in total risk to the water utility group. Application of these cost of common equity models to these groups result in an indicated cost of common equity of 11.00% which is presented in Appendix G.

The representative capital structure is a hypothetical capital structure based on the range of capital structures for fiscal year 2016 of the publicly-traded proxy group companies used to derive the cost of common equity.⁹ For the debt cost rate used in the WACC calculation, ScottMadden used a projected Moody’s A public utility bond rate of 4.83%.¹⁰ Table 2 below illustrates the assumed WACC of an investor-owned water utility.

Table 2: Assumed WACC for Water Utility Company

Type of Capital	Cost Rate	Ratio	Weighted Cost
Long-Term Debt	4.83%	50.00%	2.42%
Common Equity	11.00%	50.00%	5.50%
Total		100.00%	7.92%

Indicated Value Using the Income Approach

Inputting the estimated revenue, expense, and capital expenditure data into the model resulted in an indicated value of \$12,659,568

CONCLUSION OF VALUE – SUBJECT INTEREST

No method of valuation will produce the exact value of a business. A valuation study cannot incorporate market conditions at the time of sale or predict a potential investor’s desire, or lack thereof, to acquire the business. The

⁹ The range of equity ratios of the proxy group companies were from 45.17% to 60.60% at 2016 fiscal year end.

¹⁰ Appendix G at 15.

Client’s desire to sell additional assets to the potential acquirer may increase the desire of some investors, and as a result, increase the value of both sets of assets. Our valuation and report cannot incorporate these considerations.

ScottMadden has determined the range of values of the Subject Interest based on the relative weighting of the three valuation methods. The weightings indicate the value placed on each appraisal method from the valuation expert. In ScottMadden’s opinion, all three approaches should receive equal weight. The range of values and relative weightings of the valuation approaches given a specific scenario are set forth in Table 3, below:

Table 3: Conclusion of Value for the Subject Interest

Valuation Approach	Indicated Value	Weight	Weighted Value
Cost	\$22,243,034	33%	\$7,340,201
Market	\$29,388,354	34%	\$9,992,040
Income	\$12,507,119	33%	\$4,127,349
Indicated Value			\$21,459,590

In addition to the purchase price, the parties should consider the value of additional items including, but not limited to, the following; any balance of materials and supplies, prepaid expenses, and outstanding customer accounts receivable at the date of closing.

CLOSURE

ScottMadden strived to consider all relevant information and data presented by the Client. We appreciate the Client’s willingness to provide critical data necessary to complete the engagement. We also appreciate the valuable input from the Client’s management team. Again, ScottMadden has no financial interest or contemplated financial interest in the property that is the subject of this Report.

Respectfully Submitted,

Dylan W. D’Ascendis, CVA, CRRA
 Director
 ScottMadden, Inc.



APPENDIX A: STATEMENT OF ASSUMPTIONS AND LIMITING CONDITIONS

The conclusion of value arrived at herein is valid only for the stated purpose as of the date of the valuation. All data relied upon by ScottMadden, Inc. was provided before June 12, 2018, the valuation date. All subsequently received data was not considered.

Financial statements and other related information provided by the Client, or its representatives, in the course of the engagement, have been accepted without any verification as fully and correctly reflecting the enterprise's business conditions and operating results for the respective periods, except as specifically noted herein, ScottMadden, Inc. has not audited, reviewed, or compiled the financial information provided and, accordingly, expresses no audit opinion or any form of assurance on this information.

Public information has been obtained from sources ScottMadden, Inc. believes to be reliable. However, we make no representation as to the accuracy or completeness of such information and have performed no procedures to corroborate the information.

ScottMadden, Inc. does not provide assurance on the achievability of the results forecasted by the Authority because unexpected events and circumstances frequently occur; differences between actual and expected results may be material; and achievement of the forecasted results is dependent on actions, plans, and assumptions of management.

The conclusion of value arrived at herein is based on the assumption that the current level of management expertise and effectiveness would continue to be maintained, and the character and integrity of the enterprise through any sale, reorganization, exchange, or diminution of the owners' participation would not be materially or significantly changed.

This report and the conclusion of value arrived at herein are for the exclusive use of the Client for the sole and specific purposes as noted herein. They may not be used for any other purpose or by any other party for any purpose. Furthermore, the report and conclusion of value are not intended by ScottMadden, Inc. and should not be construed by the reader to be investment advice in any manner whatsoever. The conclusion of value represents the considered opinion of ScottMadden, Inc. based on information furnished to it by the Client and other sources.

Neither all nor any part of the contents of this report (especially the conclusion of value) should be disseminated to the public through advertising media, public relations, news media, sales media, mail, direct transmittal, or any other means of communication without the prior written consent and approval of ScottMadden, Inc.

Future services regarding the subject matter of this report, including, but not limited to testimony or attendance in court, shall not be required of ScottMadden, Inc. unless previous arrangements have been made in writing.

ScottMadden, Inc. is not an environmental consultant or auditor, and it takes no responsibility for any actual or potential environmental liabilities. Any person entitled to rely on this report, wishing to know whether such liabilities exist, or the scope and their effect on the value of the property, is encouraged to obtain a professional environmental assessment. ScottMadden, Inc. does not conduct or provide environmental assessments and has not performed one for the subject property.

No change of any item in this valuation report shall be made by anyone other than ScottMadden, Inc., and it will not have any responsibility for any such unauthorized change.

APPENDIX A: STATEMENT OF ASSUMPTIONS AND LIMITING CONDITIONS (CONTINUED)

ScottMadden has conducted interviews with the current management of the Authority concerning the past, present, and prospective operating results of the Company.

Except as noted, ScottMadden, Inc. has relied on the representations of management and HRG concerning the value and useful condition of all equipment, real estate, and any other assets, except as specifically stated to the contrary in this report.

ScottMadden, Inc. has no financial interest or contemplated financial interest in the Company that is the subject of this report.

APPENDIX B: VALUATION ANALYST'S REPRESENTATIONS

The analyses, opinions, and conclusion of value included in the valuation report are subject to the specified assumptions and limiting conditions (see Appendix A), and they are the personal analyses, opinions, and conclusion of value of the valuation analyst.

The economic and market data included in the valuation report have been obtained from various printed or electronic reference sources that the valuation analyst believes to be reliable. The valuation analyst has not performed any corroborating procedures to substantiate that data.

The valuation engagement was performed in accordance with the American Institute of Certified Public Accountants Statement on Standards for Valuation Services and the Uniform Standards of Professional Appraisal Practice.

The parties for which the information and use of the valuation report is restricted are identified; the valuation report is not intended to be and should not be used by anyone other than such parties.

The analyst's compensation is fee-based and is not contingent upon the development or reporting of a predetermined value or direction of value that favors the cause of the Client, the amount of the estimate of value, or the attainment of a stipulated result.

The valuation analyst relied upon HRG for estimated original costs of certain assets during the valuation engagement.

The valuation analyst has no obligation to update the report or the opinion of value for information that comes to their attention after the date of the report.

Signature of the Analyst:



Dylan W. D'Ascendis
Director
ScottMadden, Inc.

Summary

Dylan is an experienced consultant and a Certified Rate of Return Analyst (CRRA) and Certified Valuation Analyst (CVA). He has served as a consultant for investor-owned and municipal utilities and authorities for 9 years. Dylan has extensive experience in rate of return analyses, class cost of service, rate design, and valuation for regulated public utilities. He has testified as an expert witness in the subjects of rate of return, cost of service, rate design, and valuation before 13 regulatory commissions in the U.S. and an American Arbitration Association panel.

He also maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured. He serves on the Rates and Regulatory Committee of the National Association of Water Companies (NAWC).

Areas of Specialization

- Regulation and Rates
- Utilities
- Mutual Fund Benchmarking
- Capital Market Risk
- Capital Market Risk
- Financial Modeling
- Valuation
- Regulatory Strategy and Rate Case Support
- Rate of Return
- Cost of Service
- Rate Design

Recent Expert Testimony Submission/Apearances

Jurisdiction	Topic
■ Pennsylvania Public Utility Commission	Valuation
■ New Jersey Board of Public Utilities	Cost of Service, Rate Design
■ Pennsylvania Public Utility Commission	Return on Common Equity
■ South Carolina Public Service Commission	Return on Common Equity
■ American Arbitration Association	Valuation

Recent Assignments

- Provided expert testimony on the cost of capital for ratemaking purposes before numerous state utility regulatory agencies
- Maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured
- Sponsored valuation testimony for a large municipal water company in front of an American Arbitration Association Board to justify the reasonability of their lease payments to the City
- Co-authored a valuation report on behalf of a large investor-owned utility company in response to a new state regulation which allowed the appraised value of acquired assets into rate base

Recent Publications and Speeches

- Co-Author of: "The Impact of Decoupling on the Cost of Capital of Public Utilities", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. (Forthcoming)
- "Past is Prologue: Future Test Year", Presentation before the National Association of Water Companies 2017 Southeast Water Infrastructure Summit, May 2, 2017, Savannah, GA.
- Co-author of: "Comparative Evaluation of the Predictive Risk Premium Model™, the Discounted Cash Flow Model and the Capital Asset Pricing Model", co-authored with Richard A. Michelfelder, Ph.D., Rutgers University, Pauline M. Ahern, and Frank J. Hanley, The Electricity Journal, May, 2013.
- "Decoupling: Impact on the Risk and Cost of Common Equity of Public Utility Stocks", before the Society of Utility and Regulatory Financial Analysts: 45th Financial Forum, April 17-18, 2013, Indianapolis, IN.

SPONSOR	DATE	ASSETS VALUED	DESCRIPTION
Steelton Water Authority	6/18	Water Operations	Authored Valuation Report, which will be a part of an Act 12 Filing.
Block Island Power Company	4/18	Electric Operations	Authored Valuation Report for internal purposes.
Mahoning Township, PA	9/17	Water and Sewer Assets	Authored Valuation Report, which is part of Act 12 Filing.
Atmos Energy Corporation	9/16	Intrastate Natural Gas Pipeline	Authored Valuation for internal purposes.
Village of Glenview, IL (North Maine Utilities)	7/14	Water and Sewer Assets	Co-Authored Valuation Report, which was part of House Bill 1379 Filing (similar to PA Act 12).
Springfield Township, PA	8/14	Sewer Assets	Co-Authored Valuation report for internal purposes.
Erie City Water Authority, Erie, PA	12/13	Water Assets	Sponsored Valuation Testimony in Arbitration Hearing.
City of Allentown, PA	12/12	Water and Sewer Assets	Assisted in the generation of Valuation Report.



Herbert, Rowland & Grubic, Inc.
Engineering & Related Services

AN EMPLOYEE-OWNED COMPANY

Steelton Borough Authority

Water System
Assessment of Tangible Assets
Pursuant to PUC Code §1329 (A)(4)
Borough of Steelton, Dauphin County, PA

October 2018



**[BUILDING RELATIONSHIPS.
DESIGNING SOLUTIONS.]**

**WATER SYSTEM
ASSESSMENT OF TANGIBLE ASSETS**

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Table 3.2	Water Main Distribution Pipe by Material

APPENDICES

Appendix A	Summary of Water Assets
Appendix B	Land and Land Rights Assets
Appendix C	Water Treatment Plant Assets
Appendix D	Booster Station Assets
Appendix E	Finished Water Storage Tank Assets
Appendix F	Interconnection Assets
Appendix G	Distribution System Assets

WATER SYSTEM ASSESSMENT OF TANGIBLE ASSETS

STEELTON BOROUGH AUTHORITY, DAUPHIN COUNTY, PENNSYLVANIA

1.0 – EXECUTIVE SUMMARY

As required by PA Act 12 (HB1329) and following the guidelines of the “Uniform System of Accounts for Class A Water Utilities”, an assessment of the tangible assets of facilities and equipment for the Steelton Borough Authority (Authority) water treatment, storage and distribution system was prepared. Each facility and class of equipment was coded based on Section 300 of the “Water Utility Plant Accounts” outlined in the Guidelines. The Asset Survey included the Water Treatment Plant (WTP), water booster station, two (2) finished water storage tanks, one (1) interconnect, and approximately 28 miles of water main distribution pipe. Information was derived from various sources including Tapping Fee calculations, record drawings, site visits, discussions with Borough staff, and other sources to provide an inventory and listing.

2.0 – PURPOSE OF REPORT

The purpose of this report is to “conduct an assessment of tangible assets of the selling utility” per the requirements of PA Act 12 (HB1329). The engineering assessment followed the practices and procedures of the Public Utility Commission and National Association of Regulatory Utility Commissioners (NARUC) Uniform Systems of Accounts. The engineering assessment report documents the approximate age and original costs of the Authority's assets that will be used to develop an appraisal of the system. The engineering assessment does not include vehicles.

This report contains the following:

- Inventory of the used and useful depreciable assets to be transferred, compiled by year and account.
- List of non-depreciable assets such as land and rights-of-way.
- Review of system components, plans and reports of key facilities.
- Assessment of the identified assets, including approximate age.
- Determination and/or establishment of an original cost of construction for each asset.
- Grants and dedicated facilities.
- Known and estimated overhead costs that includes engineering design, permitting, legal, bidding, construction administration and construction observation costs.

3.0 – SYSTEM DESCRIPTION

The Authority under permit PWSID 7220036 provides water to approximately 6,311 consumers through 2,421 metered service connections. The existing water system consists of two components, the water treatment plant (WTP) and the storage and distribution system.

The Authority's WTP obtains all water from a raw water intake located in the Susquehanna River in Dauphin County. Constructed in 1973, the WTP serves the community of Steelton and some customers in Swatara Township. While the WTP's permitted capacity is 3.0 MGD (2,083 gpm), the WTP maintains a typical daily production rate of 1.6 to 2.4 MGD (1,111 to 1,670 gpm). The WTP is staffed 24 hours per day however, the time of operation is typically 13 to 16 hours per day, 7 days per week. The existing treatment process at the WTP currently consists of potassium permanganate for disinfection by-products (DBP) control, alum for coagulation, flash mixing, two upflow sludge blanket clarifiers for flocculation and sedimentation, four multimedia filters and chlorine

disinfection. A polymer is also added to the flash mixer to aid in clarifier blanket formation. The existing filtration system was manufactured by INFILCO and was originally installed in 1973. Various upgrades to the filtration system have been performed over the years with the most recent upgrades being completed in 2017 (new clearwell, for DBP removal).

Two (2) vertical turbine raw water pumps with variable frequency drives (VFD's) convey the water from the raw water pumping station to the up-flow clarifier rapid mix tank. From there, the water flows by gravity through the treatment process into the existing clearwell. Two (2) centrifugal finished water pumps with VFD's convey the water from the clearwell to the distribution system. Production at the WTP typically ends when the finished water storage tanks have been filled to their maximum operating levels. During the hours when the WTP is not in production, the distribution system is fed from the finished water storage tanks.

The existing Authority distribution system generally consists of a network of water distribution piping including approximately 28 miles of pipe ranging from 4 inch diameter to 20 inch diameter, one water booster station, two – 2 million gallon (MG) finished water storage tanks, and two interconnections with Suez that provide water service to various residential, commercial, institutional, and industrial properties throughout the Borough. The interconnect metering chamber with Suez, located on S. 19th Street, is owned by the Authority. The interconnect pumping station with Suez, located near the finished water storage tanks, is owned by Suez.

Table 3.1 provides a breakdown of the water main distribution pipe by size and Table 3.2 provides a breakdown of the water main distribution pipe by material. The estimated linear foot of water pipe shown was obtained from a WaterCAD model that consists of a GIS map performed in 2003 and information collected between 2003 through 2016 from Steelton Borough Authority staff. HRG can not confirm the accuracy of the information. To the best of HRG knowledge, the approximate lengths are the most accurate data available at the time of preparing this report. The total length does not include abandoned pipe, private pipe, or fire hydrant laterals, etc.

Table 3.1 Water Main Distribution Pipe by Size

Water Main Size (in.)	Approximate Length (ft.)
4	12,080
6	40,514
8	51,779
10	13,017
12	23,142
16	3,445
20	1,511

Table 3.2 Water Main Distribution Pipe by Material

Water Main Material	Approximate Length (ft.)
Cast Iron Pipe	75,659
Ductile Iron Pipe	69,829



APPENDIX A
SUMMARY OF WATER ASSETS

Summary of Water Assets

Category	Original Cost
Construction Cost:	
Original 1973 Construction Cost ^[1]	\$2,527,558
Land Assets	\$31,305
Water Treatment Plant ^[2]	\$5,488,926
Distribution System ^[3]	\$8,465,914
Trended Cost Back to 1973 ^[4]	(\$717,500)
Total	\$15,796,203
Estimated and Known Overhead Cost: ^[5]	
Original 1973 Construction Cost	\$606,614
Land Assets	\$939
Water Treatment Plant	\$1,250,257
Distribution System	\$1,305,262
Trended Cost Back to 1973	(\$147,431)
Total	\$3,015,641
Grants and Dedications:	
Grant: Power Generator Equipment ^[6]	\$545,102
Dedication: UGIES Water main ^[7]	\$481,665
Total	\$1,026,767
Total	\$19,838,611

Footnotes:

- [1] The original construction cost of the water treatment plant and water storage facilities built in 1973 was \$2,527,558.
- [2] Per Note 1 above, the water treatment plant was constructed as part of a larger project. The original cost shown for water treatment plant is the original cost added to the system since 1973.
- [3] The estimated linear foot of water pipe shown was obtained from a WaterCAD model that consists of a GIS map performed in 2003 and information collected between 2003 through 2016 from Steelton Borough Authority staff. HRG can not confirm the accuracy of the information. To the best of HRG knowledge, the approximate lengths are the most accurate data available at the time of preparing this report. The total length does not include abandoned pipe, private pipe, or fire hydrant laterals, etc.
- [4] Per Notes 1 and 2 above, so that costs are not counted twice, replaced equipment costs were trended back to 1973 and subtracted from the \$2,527,558 project cost. The amount shown is the sum of all of the trended cost deductions for replacements. Refer to the detail pages for additional information. The ENR index was used to trend the cost to 1973.
- [5] Overhead costs includes engineering design, permitting, legal, construction administration, construction observation and financing.
- [6] Item shown in Appendix C under generator with NARUC Code 310.
- [7] Item shown in Appendix G under 'Installation Years 2011-2018', Item 3.



APPENDIX B
LAND AND LAND RIGHTS ASSETS

NARUC Code	Asset	Parcel Number	Site Address	Acres	Purchase Date	Original Cost	Overhead Cost	Source [4]	Notes
303	Land and Land Rights	61-013-047	304 Christian Street	0.03	N/A	N/A			[1]
		61-013-048	302 Christian Street	0.03	N/A	N/A			
		61-014-025	Christian Street	0.37	1972	\$1			Book A, Vol.59, Page 661
		61-014-026	262 Christian Street	0.03	1972	\$6,700	\$201		Book X, Vol.57, Page 506
		61-014-027	260 Christian Street	0.03	1972	\$8,000	\$240		Book V, Vol.57, Page 646
		61-014-028	256 Christian Street	0.03	1972	\$5,000	\$150		Book M, Vol.58, Page 388
		61-014-029	254 Christian Street	0.09	1972	\$6,500	\$195		Book W, Vol.57, Page 335
		61-014-030	244 and 246 Christian Street	0.09	1972	\$5,100	\$153		Book Y, Vol.57, Page 423
		63-045-115	Reservoir Road	2.34	1971	\$1			Book S, Vol.56, Page 140
		63-045-126	Kelker Road	1.14	1985	\$1			Book 675, Page 421
303	Right-of-way	57-029-005	Water line right-of-way (southern side of south Front Street between R Street and T Street)	0.56	2001	\$1		Book 4002, Page 338	
303	Easement	62-043-051	Water line easement	0.06	2010	\$1		Instrument # 20110015567	
Total							\$939	\$31,305	

Footnotes:

- [1] These parcels are owned by Dauphin County Redevelopment Authority. Components of the water treatment plant are located on these parcels including the water intake, screen, clearwell and grinder.
- [2] Two water storage tanks are currently located on this property.
- [3] This is an open parcel that is located adjacent to the Reservoir Road parcel discussed in Note 3.
- [4] The Authority may have other land assets not shown in the above table.
- [5] Estimated at 3% of original cost for legal expenses.



APPENDIX C
WATER TREATMENT PLANT ASSETS

NARUC Code	Description	Original Year Installed	Age	Construction Cost		Overhead Cost	
				Original Cost	Cost Deduction for Trending Back to 1973 ⁽⁶⁾	Original Cost	Cost Deduction for Trending Back to 1973 ⁽⁶⁾
Water Treatment Plant							
Water Treatment Plant Building							
	Building	1973	45	See Footnote 1			
Raw Water Pumping Station							
306	Concrete	1973	45	See Footnote 1			
	1-160 L.F. - 36" Cast Iron Pipe						
309	Water Intake Line	1973	45	See Footnote 1			
	382 L.F. - 24" Cast Iron Pipe						
	1 - 24" Gate Valve						
304	Well	1973	45	See Footnote 1			
	17.5x16x31' Concrete Structure						
	17.5x16x6' CMU Structure						
	1 - 24"x30" Sluice Gate (floor Stand, Electric Operator)						
311							
334							
	2 - Vertical Turbine Pumps w/ VFD's: 40 HP/2100 gpm						
	1 - Flow Meter						
304							
	2 - 12" Butterfly Valves (floor Stand with Hand Wheel)						
	1 - 10" Butterfly Valve (Electric Operator)						
	34 V.F. - Aluminum Ladder and Cage with Walkway						
	2 - 12" Check Valve						
320		2010 ⁽⁶⁾	8	See Footnote 2			
	Hydrolyne Traveling Screen with Compactor						
	17.5x16x12' CMU Structure	1973	45	See Footnote 1			
	1 - Roof Exhaust	2014 ⁽⁶⁾	4	\$11,000	(\$2,126)	\$880	(\$170)
	2 - Aluminum Windows						
304	Building	1973	45	See Footnote 1			
	1 - Single Metal Door						
	Aluminum Stairwell						
	4 - Square Aluminum Hatch						
	3 - Square Aluminum Hatch						
	Electrical and Ventilation Wiring and Controls						
Chemical Treatment							
320	Liquefied Gas Chlorine System	1973	45	See Footnote 1			
	4 - 150 lb. Cylinder						
	3 - Gas Chlorinator (Regal Model 220, Capacity 250 lbd)						
	Chemical Feed Lines and Appurtenances						
320	Liquid Alum System	1973	45	See Footnote 1			
	2 - 2,800 Gallon Fiberglass Tanks						
	1 - Peristaltic Pump (Blue White Flex-Pro)	2016 ⁽⁶⁾	2	\$3,700	(\$678)	\$296	(\$54)
	Chemical Feed Lines and Appurtenances	1973	45	See Footnote 1			
320	Non-Ionic Polymer System	2017 ⁽⁶⁾	1	\$3,700	(\$653)	\$296	(\$52)
	1 - Peristaltic Pump (Blue White Flex-Pro)	2015 ⁽⁶⁾	3	\$14,000	(\$2,644)	\$1,120	(\$212)
	Chemical Feed Lines, Tanks and Appurtenances	1973	45	See Footnote 1			
320	Dry Lime System	2004 ⁽⁷⁾	14	\$15,000			
	1 - Volumetric Dry Feeder (OMEGA-BIF, Model 21-02, 250 lbd)						
	Chemical Feed Lines and Appurtenances						
320	Potassium Permanganate System	2016 ⁽⁶⁾	2	\$14,724	(\$2,699)	\$1,178	(\$216)
	1 - Volumetric Dry Feeder (OMEGA-BIF, Model CFX 1000, 250 lbd)	1973	45	See Footnote 1			
	Chemical Feed Lines and Appurtenances						
Rapid (Flash) Mixer							
304	Structure	1973	45	See Footnote 1			
	7' x 7.5' x 9.2' Concrete Structure (3,613 Gallon)						
	2 - 4' x 1.75' Aluminum Hatches						
320	Mixer	2018 ⁽⁶⁾	0	\$1,000	(\$173)	\$80	(\$14)
	1 - Vertical Mixer						
Clarification System							
304	Structure	2010	8	\$2,959,000	(\$637,266)	\$621,390	(\$133,826)
311	Pumps	2012	6	\$8,000	(\$1,622)	\$640	(\$130)
334	Meters and Meters Installation	2015 ⁽⁷⁾	3	\$6,000			
	2 - Flow Meters (3" Mag Meter)						
Filtration System							
320	WTP Equipment	2010 ⁽⁶⁾	8	See Footnote 2			
	4 - Dual Media Filters: Anthracite/Sand (138 sq. ft., each)						
311	Pumps	1973	45	See Footnote 1			
	1 - Filter Control System: Inflico Greenleaf Vacuum System						
	1 - Filter Vacuum Pump (Nash, Single Stage, 3HP)	2014 ⁽⁶⁾	4	\$7,600	(\$1,469)	\$608	(\$117)
Clearwell System							
304	Structure	1973	45	See Footnote 1			
	Concrete Baffled Tank (73,617 Gallon, max.)						
311	Pumps						
	2 - Centrifugal Pumps w/ VFD's (250 HP/2,083gpm)						

NARUC Code	Description	Original Year Installed	Age	Construction Cost		Overhead Cost	
				Original Cost	Cost Deduction for Trending Back to 1973 ⁽⁶⁾	Original Cost	Cost Deduction for Trending Back to 1973 ⁽⁶⁾
334	Meters and Meters Installation 1- Flow Meter						
Clearwell Booster System							
304	Structure 1- 40' Diameter Circular Concrete Baffled Tank (260,000 Gallon)						
311	Pumps 2- Centrifugal Pumps w/ VFD's (25 HP/2,083gpm)						
334	Meters and Meters Installation 1- Pump Control System						
309	Piping and Appurtenances 12" Ductile Iron Process Piping, Fittings, and Valves 16" Ductile Iron Process Piping, Fittings, and Valves	2017 ⁽⁷⁾	1	\$2,104,802		\$444,080	⁽¹¹⁾
339	Other Plant and Miscellaneous Equipment Electrical and Structural Appurtenances						
Backwash System							
304	Structure 1 - Backwash Pumping Station Wet Well	1973	45	See Footnote 1			
311	Pumps 4 - Concrete Backwash Tanks (38,000 Gallon, each) 2- Submersible Backwash Pumps	2018 ⁽⁶⁾	0	\$4,100	(\$709)	\$328	⁽⁹⁾ (\$57)
310	Generator 2- Submersible Sludge Pumps (Flygt, 3.8 HP)	2015 ⁽⁷⁾	3	See Footnote 5		\$99,500	⁽¹¹⁾
Constellation Energy							
339	Other Plant and Miscellaneous Equipment Energy Efficiency Upgrades	2009 ⁽⁶⁾	9	\$250,000	⁽³⁾ (\$55,280)	\$52,500	⁽¹⁰⁾ (\$11,609)
Elevator							
347	Miscellaneous Equipment 1 - Thyson Krupp Elevator Improvements	2015 ⁽⁶⁾	3	\$56,000	⁽⁴⁾ (\$10,575)	\$4,480	⁽⁹⁾ (\$846)
Lab Equipment							
344	Laboratory Equipment HACH DR 6000 UV Spectrometer Chem Trac Lab Charge Analyzer	2017 ⁽⁷⁾	1	\$8,600 \$13,000		\$688 \$1,040	⁽⁹⁾ ⁽⁹⁾
Instrumentation/Monitors							
339	Other Plant and Miscellaneous Equipment 6 - HACH Turbidimeters 3 - HACH CL 17 Analyzers 3 - Rosemount pH Meters	2015 ⁽⁶⁾ 2017 ⁽⁶⁾ 2015 ⁽⁶⁾	3 1 3	\$2,700 \$3,500 \$2,500	(\$510) (\$618) (\$472)	\$216 \$280 \$200	⁽⁹⁾ (\$41) ⁽⁹⁾ (\$49) ⁽⁹⁾ (\$38)
Total				\$5,488,926	(\$717,500)	\$1,250,257	(\$147,431)

Footnotes:

- [1] The original construction cost of the water treatment plant, booster station, and finished water storage tanks built in 1973 was \$2,527,558. The original construction cost per component is not known.
- [2] Component included in the \$2,959,000 construction cost of the 2010 water treatment plant improvement project. Work include refurbishing of the clarifier and filter units. This cost is shown in the "Clarification System" category.
- [3] Work included new 250 HP VFD's and motors, new 40 HP VFD's and motors, new motor control center (MCC), and new lighting.
- [4] New control system added.
- [5] The generator equipment was installed in 2015 at a cost of \$545,902 and was fully paid for by grant funding. The grant is listed in the 'Summary of Water Assets'.
- [6] Original component included in the 1973 water treatment plant construction cost, but has since been replaced.
- [7] New construction. Component not part of the 1973 water treatment plant construction.
- [8] So that costs are not counted twice, the replacement component costs (identified by footnote 6) were trended back to 1973 and subtracted from the 1973 water treatment plant construction cost of \$2,527,558. Refer to the summary page for the deduction total. The ENR index was used to trend the cost to 1973.
- [9] Estimated at 8% of original cost for engineering design.
- [10] Estimated at 14% of construction cost that consists of 8% for engineering design, 4% for permitting, 2% for bidding, 3% construction administration and 4% for construction observation.
- [11] Actual engineering cost.



APPENDIX D
BOOSTER STATION ASSETS

NARUC Code	Description		Original Year Installed	Age	Original Cost
Booster Pump Station					
304	Building	18' x 16' CMU Structure w/ Brick Facade, with 2'-8" x 7'-4" x 6'-8" Dry Pit	1973	45	See Footnote 1
		1 - Door 3 - Windows			
311	Pumps	2 - Centrifugal Pump with VFDs (Aurora, 15HP/480GPM)	1973		See Footnote 1
309	Piping and Appurtenances	8" Cast Iron Piping and Fittings	1973		See Footnote 1
		4" Cast Iron Piping and Fittings			
		2 - 8" Butterfly Valve			
		1 - 8" Check Valve			
		2 - 6" Butterfly Valve			
2 - 4" Check Valve					
2 - 4" Butterfly Valve					
348	Other	Electrical and HVAC Wiring and Controls	1973	See Footnote 1	

Footnotes:

- [1] The original construction cost of the water treatment plant, booster station, and finished water storage tanks built in 1973 was \$2,527,558. The original construction cost per component is not known.



APPENDIX E
FINISHED WATER STORAGE
TANK ASSETS

NARUC Code	Description		Original Year Installed	Age	Original Cost
Finished Water Storage Tank					
330	Distribution Reservoirs	2 - 2 MG Steel Tanks (110' Diameter x 28' Height)	1973	45	See Footnote 1
		20' Screened Roof Vent (each)			
		Cage Ladder (each)			
		8" Steel Overflow Pipe (each)			
		24" Roof Hatch (each)			
		24" Shell Hatch (each)			
Valve Pits					
304	Structure	2 - 10' x 7'-6" x 6'-6" Concrete Valve Pit	1973	45	See Footnote 1
		5' x 2'-6" Double Leaf Hatch (each)			
		12" Ductile Iron Influent/Effluent Piping (each)			
		6" Cast Iron Drain Piping (each)			
		2" Sump			
		1 - 12" Butterfly Valve (each)			
		1 - 6" Butterfly Valve (each)			

Footnotes:

[1] The original construction cost of the water treatment plant, booster station, and finished water storage tanks built in 1973 was \$2,527,558. The original construction cost per component is not known.

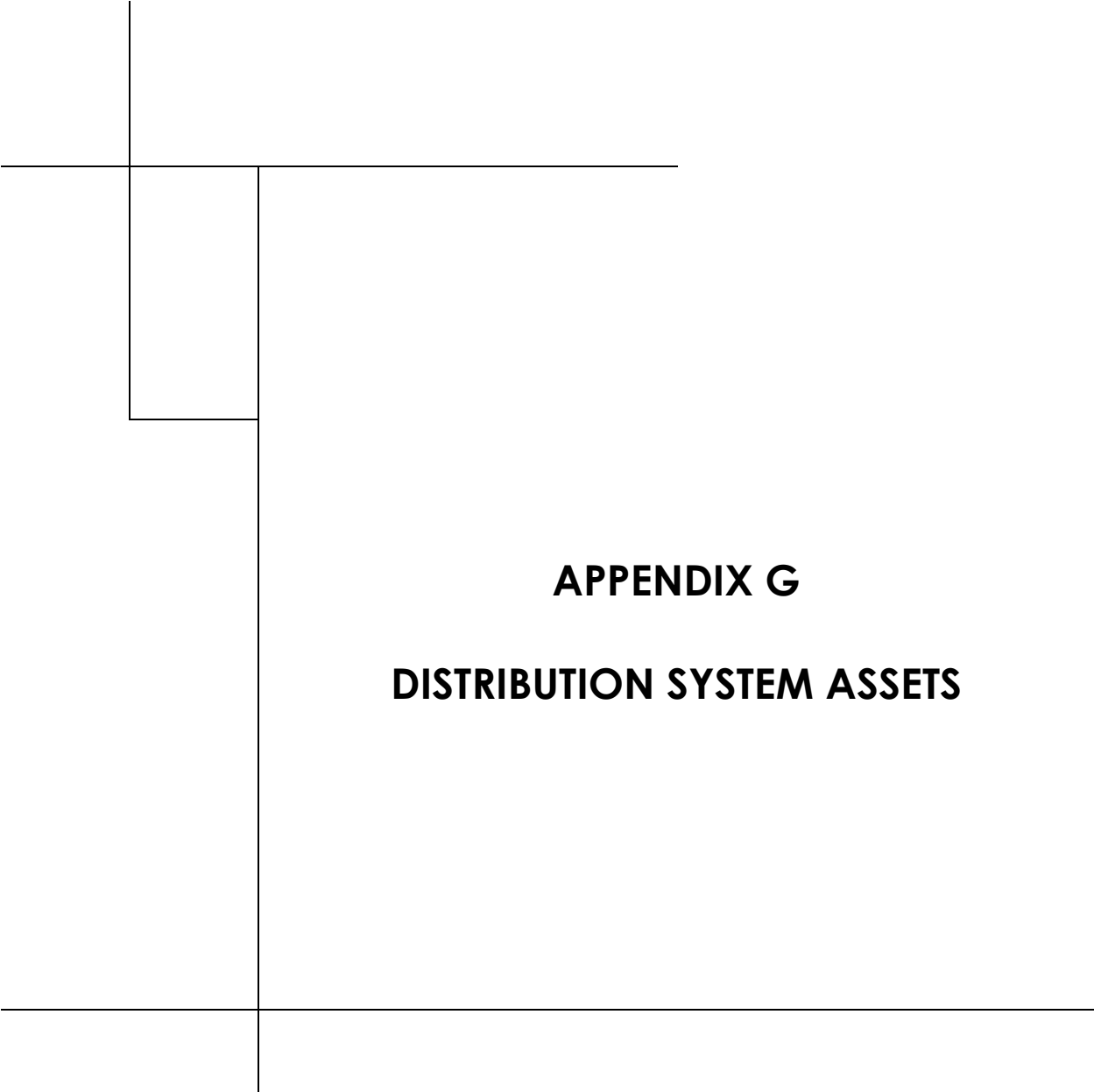


APPENDIX F
INTERCONNECTION ASSETS

NARUC Code	Description		Original Year Installed	Age	Original Cost
Interconnection with Suez (S. 19th Street)					
304	Structure	15'-8.5" x 6' x 6' Concrete Metering Chamber	2010	8	See Footnote 1
		1 - 54" x 48" Access Hatch			
309	Piping and Appurtenances	6" Ductile Iron Piping and Fittings			
		2 - 6" Gate Valve			
		1 - 6" Flow Control Valve (Cla-Val; Model 40-01)			
336	Backflow Prevention Devices	1 - 6" Backflow Preventer (Watts; Model Series 709)			
334	Meters	1 - 6" Flow Meter (Sensus)			
348	Other	Electric Unit Heater			

Footnotes:

- [1] Component included in the \$2,959,000 construction cost of the water treatment plant improvement project. Work include refurbishing of the clarifier and filter units. This cost is shown in the Water Treatment Plant Assets "Clarification System" category.



APPENDIX G
DISTRIBUTION SYSTEM ASSETS

Installation Years 1903 - 1910 ⁽²⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	4" Ductile Iron Pipe	1,106	L.F.	\$ 383	111	
	2	6" Ductile Iron Pipe	5,798	L.F.	\$ 2,261	111	
	3	8" Ductile Iron Pipe	3,720	L.F.	\$ 2,095	111	
	4	10" Ductile Iron Pipe	4,523	L.F.	\$ 3,528	111	
	5	4" Gate Valve	5	Ea.	\$ 50	111	
	6	6" Gate Valve	16	Ea.	\$ 218	111	
	7	8" Gate Valve	9	Ea.	\$ 193	111	
	8	10" Gate Valve	4	Ea.	\$ 139	111	
335	9	Fire Hydrant Assembly	18	Ea.	\$ 1,131	111	
354	10	Excavation And Aggregate Backfill	15,147	L.F.	\$ 3,938	111	
	11	Surface Restoration	15,147	L.F.	\$ 5,513	111	
Total					\$ 19,449		\$ 1,556 ⁽¹¹⁾

Installation Years 1911 - 1920 ⁽²⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	4" Ductile Iron Pipe	374	L.F.	\$ 194	102	
	2	6" Ductile Iron Pipe	1,068	L.F.	\$ 623	102	
	3	8" Ductile Iron Pipe	733	L.F.	\$ 617	102	
	4	12" Ductile Iron Pipe	5,837	L.F.	\$ 7,183	102	
	5	4" Gate Valve	3	Ea.	\$ 45	102	
	6	6" Gate Valve	6	Ea.	\$ 122	102	
	7	8" Gate Valve	1	Ea.	\$ 32	102	
	8	12" Gate Valve	16	Ea.	\$ 1,145	102	
335	9	Fire Hydrant Assembly	18	Ea.	\$ 1,690	102	
354	10	Excavation And Aggregate Backfill	8,012	L.F.	\$ 3,113	102	
	11	Surface Restoration	8,012	L.F.	\$ 4,359	102	
Total					\$ 19,123		\$ 1,530 ⁽¹¹⁾

Installation Years 1921 - 1930 ⁽²⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	4" Ductile Iron Pipe	6,414	L.F.	\$ 4,798	92	
	2	6" Ductile Iron Pipe	6,934	L.F.	\$ 5,836	92	
	3	8" Ductile Iron Pipe	2,050	L.F.	\$ 2,492	92	
	4	10" Ductile Iron Pipe	420	L.F.	\$ 707	92	
	5	12" Ductile Iron Pipe	3,697	L.F.	\$ 6,568	92	
	6	4" Gate Valve	26	Ea.	\$ 559	92	
	7	6" Gate Valve	28	Ea.	\$ 825	92	
	8	8" Gate Valve	10	Ea.	\$ 463	92	
	9	10" Gate Valve	3	Ea.	\$ 224	92	
	10	12" Gate Valve	10	Ea.	\$ 1,033	92	
335	11	Fire Hydrant Assembly	25	Ea.	\$ 3,390	92	
354	12	Excavation And Aggregate Backfill	19,515	L.F.	\$ 10,949	92	
	13	Surface Restoration	19,515	L.F.	\$ 15,329	92	
Total					\$ 53,173		\$ 4,254 ⁽¹¹⁾

Installation Years 1941 - 1950 ⁽²⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	4" Ductile Iron Pipe	1,299	L.F.	\$ 1,730	72	
	2	4" Gate Valve	3	Ea.	\$ 115	72	
335	3	Fire Hydrant Assembly	1	Ea.	\$ 241	72	
354	4	Excavation And Aggregate Backfill	1,299	L.F.	\$ 1,298	72	
	5	Surface Restoration	1,299	L.F.	\$ 1,817	72	
Total					\$ 5,202		\$ 416 ⁽¹¹⁾

Installation Years 1951 - 1960 ⁽²⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	10" Ductile Iron Pipe	618	L.F.	\$ 3,460	62	
354	2	Excavation And Aggregate Backfill	618	L.F.	\$ 1,153	62	
	3	Surface Restoration	618	L.F.	\$ 1,615	62	
Total					\$ 6,228		\$ 498 ⁽¹¹⁾

Installation Years 1961 - 1970 ⁽²⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	4" Ductile Iron Pipe	267	L.F.	\$ 1,019	52	
	2	6" Ductile Iron Pipe	258	L.F.	\$ 1,108	52	
	3	4" Gate Valve	2	Ea.	\$ 219	52	
	4	6" Gate Valve	2	Ea.	\$ 301	52	
354	5	Excavation And Aggregate Backfill	525	L.F.	\$ 1,503	52	
	6	Surface Restoration	525	L.F.	\$ 2,104	52	
Total					\$ 6,255		\$ 500 ⁽¹¹⁾

Installation Years 1971 - 1980 ⁽³⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	4" Ductile Iron Pipe	2,269	L.F.	\$ 19,486	42	
	2	6" Ductile Iron Pipe	12,362	L.F.	\$ 119,436	42	
	3	8" Ductile Iron Pipe	11,528	L.F.	\$ 160,880	42	
	4	10" Ductile Iron Pipe	6,492	L.F.	\$ 125,446	42	
	5	12" Ductile Iron Pipe	3,412	L.F.	\$ 69,593	42	
	6	16" Ductile Iron Pipe	462	L.F.	\$ 11,407	42	
	7	4" Gate Valve	12	Ea.	\$ 2,963	42	
	8	6" Gate Valve	41	Ea.	\$ 13,864	42	
	9	8" Gate Valve	36	Ea.	\$ 19,130	42	
	10	10" Gate Valve	10	Ea.	\$ 8,588	42	
	11	12" Gate Valve	3	Ea.	\$ 3,559	42	
	12	16" Gate Valve	1	Ea.	\$ 3,650	42	
335	13	Fire Hydrant Assembly	38	Ea.	\$ 59,150	42	
354	14	Excavation And Aggregate Backfill	36,525	L.F.	\$ 235,259	42	
	15	Surface Restoration	36,525	L.F.	\$ 329,363	42	
Total					\$ 1,181,775		\$ 165,449 ⁽¹²⁾

Installation Years 1981 - 1990 ⁽⁴⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	4" Ductile Iron Pipe	351	L.F.	\$ 5,441	32	
	2	6" Ductile Iron Pipe	5,398	L.F.	\$ 94,135	32	
	3	8" Ductile Iron Pipe	762	L.F.	\$ 19,194	32	
	4	12" Ductile Iron Pipe	1,662	L.F.	\$ 61,187	32	
	5	16" Ductile Iron Pipe	1,466	L.F.	\$ 65,334	32	
	6	4" Gate Valve	4	Ea.	\$ 1,783	32	
	7	6" Gate Valve	17	Ea.	\$ 10,376	32	
	8	8" Gate Valve	5	Ea.	\$ 4,796	32	
	9	12" Gate Valve	8	Ea.	\$ 12,401	32	
	10	16" Gate Valve	8	Ea.	\$ 52,704	32	
335	11	Fire Hydrant Assembly	13	Ea.	\$ 36,525	32	
354	12	Excavation And Aggregate Backfill	9,639	L.F.	\$ 112,063	32	
	13	Surface Restoration	9,639	L.F.	\$ 156,888	32	
Total					\$ 632,827		\$ 88,596 ⁽¹²⁾

Installation Years 1991 - 2000 ⁽⁵⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	6" Ductile Iron Pipe	7,301	L.F.	\$ 167,085	22	
	2	8" Ductile Iron Pipe	3,867	L.F.	\$ 127,829	22	
	3	6" Gate Valve	32	Ea.	\$ 25,631	22	
	4	8" Gate Valve	18	Ea.	\$ 22,656	22	
335	5	Fire Hydrant Assembly	23	Ea.	\$ 84,802	22	
354	6	Excavation And Aggregate Backfill	11,168	L.F.	\$ 170,388	22	
	7	Surface Restoration	11,168	L.F.	\$ 238,543	22	
Total					\$ 836,934		\$ 117,171 ⁽¹²⁾

Installation Years 2001 - 2010 ⁽⁶⁾							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Estimated Original Cost ⁽¹⁾	Age	Overhead Costs
331	1	6" Ductile Iron Pipe	555	L.F.	\$ 17,269	12	
	2	8" Ductile Iron Pipe	23,914	L.F.	\$ 1,074,768	12	
	3	10" Ductile Iron Pipe	964	L.F.	\$ 59,989	12	
	4	12" Ductile Iron Pipe	8,534	L.F.	\$ 560,564	12	
	5	16" Ductile Iron Pipe	1,517	L.F.	\$ 120,624	12	
	6	6" Gate Valve	2	Ea.	\$ 2,178	12	
	7	8" Gate Valve	96	Ea.	\$ 164,284	12	
	8	10" Gate Valve	2	Ea.	\$ 5,531	12	
	9	12" Gate Valve	19	Ea.	\$ 52,549	12	
	10	16" Gate Valve	4	Ea.	\$ 47,017	12	
335	11	Fire Hydrant Assembly	55	Ea.	\$ 275,708	12	
354	13	Excavation And Aggregate Backfill	35,454	L.F.	\$ 735,421	12	
	14	Surface Restoration	35,454	L.F.	\$ 1,029,589	12	
Total					\$ 4,145,491		

Installation Years 2011 - 2018 ^[7]							
NARUC Code	Item No.	Description	Est. Qty.	Unit	Actual Costs	Age	Overhead Costs
331	1	2016 Pine/Harrisburg Streets Replacement Project ^[8]	-	-	\$ 1,386,505	2	228,174 ^[13]
	2	2017 Mulberry/Bessemer Replacement Project ^[9]	-	-	\$ 172,952	1	75,850 ^[13]
	3	2017 Ugies Water Main Installation Project ^[10]	-	-	\$ -	1	40,900 ^[13]
Total					\$ 1,559,457		344,924
Total					\$ 8,465,914		\$ 1,305,262

Footnotes:

- [1] Estimated using HRG's projects with known costs or using RSMeans Data. Original cost calculated by determining construction cost in 2018 dollars and using the ENR's historical cost index to adjust the cost to the installation year. Information provided spanned a decade as shown and; therefore, average ENR index for that given decade was used.
- [2] New water main construction. Lengths do not include water main pipe that has been replaced.
- [3] 33,147 feet of water main was new construction. 3,378 feet of water main was replaced.
- [4] 8,833 feet of water main was new construction. 806 feet of water main was replaced.
- [5] 1,156 feet of water main was new construction. 10,091 feet of water main was replaced.
- [6] 2,898 feet of water main was new construction. 32,586 feet of water main was replaced.
- [7] 1,783 feet of water main was new construction. 5,773 feet of water main was replaced.
- [8] The 2016 Pine/Harrisburg streets water project included replacing approximately 5,205 feet of 8-Inch diameter water main. Majority of the project was performed in PennDOT's right-of-way. Also, approximately \$312,630 of water service line replacement was part of this project. The \$312,630 is not included in the dollar amount shown in the table because the water service lines are owned by the property owners. This project also included sanitary sewer work but the cost shown in the table is only for the water system work. The costs shown in the table does not include pavement restoration because the paving was performed by PennDOT as part of their paving project.
- [9] The 2017 Mulberry/Bessemer water project included replacing approximately 840 feet of 6-inch diameter water main. This project also included sanitary sewer work, but the cost shown in the table is only for the water system work. The cost includes pavement restoration.
- [10] The 2017 UGIES project included installing approximately 1,511 feet of 20-inch water main. The actual cost is not known, but it is estimated at \$481,665. This project was built and paid for by the developer and dedicated to the Authority.
- [11] Estimated at 8% of original cost for engineering design.
- [12] Estimated at 14% of original cost that consists of 8% for engineering design, 4% for permitting and 2% for bidding.
- [13] Actual engineering expense.
- [14] The estimated linear foot of water pipe shown was obtained from a WaterCAD model that consists of a GIS map performed in 2003 and information collected between 2003 through 2016 from Steelton Borough Authority staff. HRG can not confirm the accuracy of the information. To the best of HRG knowledge, the approximate lengths are the most accurate data available at the time of preparing this report. The total length does not include abandoned pipe, private pipe, or fire hydrant laterals, etc.

Global Water Announces Completion of the Transfer of Valencia Assets to Buckeye

PHOENIX, AZ, July 15, 2015 /CNW/ - GWR Global Water Resources Corp. ("GWRC") (TSX: GWR) today announced that Global Water Resources, Inc. ("Global Water" or the "Company") has closed on the transfer of the assets of Valencia Water Company, Inc. ("Valencia"), a subsidiary of Global Water, to the City of Buckeye ("Buckeye").

Through a settlement agreement for stipulated condemnation and stipulated court order, Buckeye has acquired substantially all of the assets of Valencia and today assumed the operations of the utility. Buckeye paid Global Water US\$55 million on closing, plus an additional \$198,000 as a result of a working capital adjustment. As of March 31, 2015, Valencia accounted for 6,719, or 15.3%, of Global Water's 43,866 active service connections.

Under the terms of the settlement, Buckeye will pay to Global Water a growth premium equal to US\$3,000 for each new water meter installed within the prior service areas of Valencia for a 20-year period ending December 31, 2034, subject to a maximum payout of US\$45 million. The first growth premium payment due to the Company will occur in mid-November, and will include payment for the new water meters installed during the first three quarters of 2015. Subsequently, growth premium payments will be paid quarterly.

Approximately US\$21.5 million of the proceeds received from the transaction were used to repay in full, the Company's commercial debt with MidFirst Bank.

"We are very pleased to announce the closing of this transaction, which materially strengthens our balance sheet," said Ron Fleming, President and CEO of Global Water. "When combined with the ongoing phase-in of new rates, the improvement in the housing market, and the successful execution of our strategic plan to focus on our core, regulated utility assets, the fundamentals of our company are very strong."

About GWR Global Water Resources Corp.

GWRC was incorporated in British Columbia to acquire shares of U.S. based Global Water and to actively participate in the management, business and operations of Global Water through its representation on the board of directors of Global Water and its shared management of Global Water. GWRC owns an approximate 48.1% interest in Global Water, a pure-play, high growth, water resources company located in Phoenix, Arizona that owns and operates regulated water, wastewater and recycled water utilities.

Cautionary Note Regarding Forward-Looking Statements

This press release includes certain forward-looking statements. These forward looking statements include, but are not limited to, statements that are not historical facts as well as statements identified by words such as "expects", "anticipates", "intends", "plans", "believes", "seeks", "estimates", or the negative of these terms, or other words of similar meaning. These statements are based on our current beliefs or expectations and are inherently subject to significant uncertainties and changes in circumstances, many of which are beyond our control. Actual results may differ materially from these expectations due to changes in political, economic, business, competitive, market and regulatory factors and other factors discussed under the heading "Risk Factors" in the Company's most recent Annual Information Form. We undertake no obligation to publicly update any forward-looking statement, except as required by law, whether as a result of new information, future developments or otherwise.

SOURCE GWR Global Water Resources Corp.

For further information: Marina Proskurovsky, Investor Relations, Tel: 416.815.0700 ext. 288, Email: mproskurovsky@tmxequicom.com, www.gwresources.com

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6/1/2017


EPCOR Water USA Completes Willow Valley Water Company Acquisition

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PCOR Water USA ompletes Willow alley Water ompany acquisition

Marketwired May 9, 2016



PHOENIX, ARIZONA--(Marketwired - May 9, 2016) - EPCOR Water (USA) Inc. (EPCOR USA), a wholly owned subsidiary of EPCOR Utilities Inc. (EPCOR), has completed the previously announced acquisition of Willow Valley Water Company (Willow Valley).

"Willow Valley complements our existing regional footprint in northwestern Arizona and is a natural step as we continue to expand our business," said Joe Gysel, President of EPCOR USA. "We believe that our focus on customer service and operational excellence will benefit the customers of Willow Valley, now and in the future."

Through its Arizona subsidiary EPCOR Water Arizona Inc., EPCOR USA acquired substantially all of the assets and operations of Willow Valley Water Company for approximately US\$2.27 million. The acquisition has received regulatory approval from the Arizona Corporation Commission.

Willow Valley provides water service to approximately 1,600 customer connections in the Bullhead City area, a service territory approximately 10 miles south of EPCOR USA's Mohave and North Mohave water districts.

With the acquisition of Willow Valley, EPCOR USA now provides water service to more than 21,000 connections in Mohave County. EPCOR USA also provides wastewater service to approximately 1,560 connections in Fort Mohave.

Willow Valley is the company's sixth acquisition since entering the United States. In 2011, the company acquired Chaparral City Water Company, followed by the 2012 acquisition of American Water's Arizona and New Mexico assets and operations. In 2013, EPCOR USA acquired North Mohave Valley Corporation in Arizona and Thunder Mountain Water Company in New Mexico, as well as the existing agreements and master-planning responsibilities to provide wastewater and recycled water services to a 7,000-acre development corridor in Glendale, Arizona.

Today, EPCOR USA is the largest, private regulated water utility in Arizona and New Mexico, providing water and wastewater service to

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Symbol	Last Price	Change	% Ch
ALE ALLETE, Inc.	73.26	-0.13	-0.1
AQN Algonquin Power & Utilities Corp.	10.46	0.13	1.2
AGR Avangrid, Inc.	45.63	0.20	0.4
YHOO Yahoo! Inc.	50.63	0.31	0.6
DUK Duke Energy Corporation	85.72	0.04	0.0
AEP American Electric Power Company, Inc.	72.06	0.28	0.4
EMA.TO Emera Incorporated	48.63	0.45	0.9

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6/1/2017

EPCOR Water USA Completes Willow Valley Water Company Acquisition

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meaning of Canadian securities laws as it relates to anticipated financial performance, events or strategies. When used in this context, words such as "will", "anticipate", "believe", "plan", "intend", "target" and "expect" or similar words suggest future outcomes. The purpose of forward-looking information is to provide investors with management's assessment of future plans and possible outcomes and may not be appropriate for other purposes. Forward-looking information in this news release includes expectations regarding the timing of regulatory approval of the acquisition.

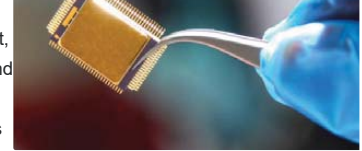
These statements are based on the assumptions and analyses made by the Company in light of its experience and perception of historical trends, current conditions and expected future developments and other factors it believes are appropriate. Readers are cautioned not to place undue reliance on forward-looking statements as actual results could differ materially from the plans, expectations, estimates or intentions expressed in the forward-looking statements. Except as required by law, EPCOR disclaims any intention and assumes no obligation to update any forward-looking statement even if new information becomes available, as a result of future events or for any other reason.

About EPCOR Water USA

EPCOR USA is an indirect, wholly owned subsidiary of EPCOR Utilities Inc. Headquartered in Phoenix, Arizona, EPCOR USA's wholly owned subsidiaries build, own and operate water and wastewater treatment facilities and infrastructure in the southwestern United States. EPCOR USA is the parent company of EPCOR Water Arizona Inc.

About EPCOR Utilities Inc.

EPCOR's wholly owned subsidiaries build, own and operate electrical transmission and distribution networks, water and wastewater treatment facilities and infrastructure in Canada and the United States. The Company's subsidiaries also provide electricity and water services and products to residential and commercial customers. EPCOR, headquartered in Edmonton, is an Alberta top 70 employer. EPCOR's website address is www.epcor.com.



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Reuters



Aqua America Announces Acquisitions in Virginia, Texas, Pennsylvania, North Carolina and Illinois

BRYN MAWR, Pa.--(BUSINESS WIRE)-- Aqua America (NYSE:WTR) announced today that its subsidiaries in Virginia, Texas, Pennsylvania, North Carolina and Illinois have completed the acquisitions of water and wastewater systems in their states.

Aqua Virginia acquired the assets of Wintergreen Valley Utility Company, L.P., owner of the Wintergreen Stoney Creek public water and sewer systems, which serve water to approximately 1,200 residents and provide wastewater service to approximately 475 residents in Nelson County, Virginia. The water and wastewater systems were purchased for \$537,950 and \$113,250, respectively. The company also acquired the assets of the Venter Heights public water system, which serves approximately 400 people in King William County, Virginia, for \$85,000.

Aqua Texas acquired the assets of Union Hill Water Supply Corporation, which serves approximately 500 people in Henderson County, Texas, for \$356,000.

Aqua Pennsylvania purchased the assets of the Bunker Hill Wastewater Company and the Factoryville Bunker Hill Water Company, each of which serves approximately 180 residents in Factoryville Borough, Wyoming County, for \$135,000.

Aqua North Carolina acquired the assets of the Water Works of Alamance County, which serves approximately 300 residents in Cary, for \$43,000. In addition, Aqua North Carolina invested \$5,200 to acquire the assets of the Mountain Ridge Estates water system, a utility that serves 100 residents in Watauga County.

Aqua Illinois acquired the water utility assets of Summerdale from the Village of Norridge in Cook County for \$5,000. This system serves approximately 180 residents in unincorporated Norwood Township, near Aqua's recently acquired North Maine Utility.

"Each of these acquisitions represents our ability to fill in our footprint and take advantage of economies of scale in areas where we currently do business," explained Aqua America President and CEO Christopher Franklin. "While we will continue to add acquisitions like these to our portfolio where they make sense, we are concentrating our growth efforts on larger municipal acquisitions, similar to the North Maine Utilities acquisition we completed in April. With our 2015 completed acquisitions to date, we are in the position to exceed our 2014 performance in customer growth, the number of total acquisitions and the number of municipal acquisitions for the year."

Aqua America is one of the largest U.S.-based, publicly traded water utilities and serves nearly 3 million people in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Indiana and Virginia. Aqua America is listed on the New York Stock Exchange under the ticker symbol WTR. Visit AquaAmerica.com for more information.

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, among others: the company's ability to exceed 2014 performance in customer growth. There are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements including: general economic business conditions, the successful integration of the customers and the facility, the ability to close the additional acquisitions on a timely basis, and other factors discussed in our Annual Report on Form 10-K, which is on file with the Securities and Exchange Commission. For more information regarding risks and uncertainties associated with Aqua America's business, please refer to Aqua America's annual, quarterly and other SEC filings. Aqua America is not under any obligation — and expressly disclaims any such obligation — to update or alter its forward-looking statements whether as a result of new information, future events or otherwise.

WTRF

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Source: Aqua America

News Provided by Acquire Media



April 20, 2016

Aqua America Completes Seven Acquisitions, Adds More Than 4,700 Customer Connections in Q1

BRYN MAWR, Pa.--(BUSINESS WIRE)-- Aqua America, Inc. (NYSE: WTR) announced today that the company has completed seven acquisitions in Pennsylvania, Illinois, Indiana and North Carolina during the first quarter of 2016, adding 4,722 customer connections.

- Superior Water Company, Inc. is comprised of five water systems that serve 3,868 customer connections (approximately 11,000 people) in parts of Berks, Chester and Montgomery counties in southeastern Pennsylvania
- The Galena wastewater system serves 123 wastewater connections (approximately 400 people) near Greenville in Floyd County, Indiana.
- The Eastwood Manor Water Company and the Nunda Utility Company in McHenry County, Illinois collectively serve 525 customer connections and approximately 1,600 people. Both systems were acquired under the provisions of the Illinois Water Systems Viability Act 98-0213, a law that promotes the acquisition of smaller, often troubled utilities by larger, more efficient utilities.
- The water and wastewater utility assets of Golf Greenwood Gardens Improvement Association each serve 72 customer connections located in unincorporated Cook County, within Aqua Illinois' existing North Maine Utility's certificated area.
- The Clear Meadow water system in the Mint Hill area of Mecklenburg County, North Carolina serves 62 customer connections.

"We welcome our new customers in these four states," said Executive Vice President for Strategy and Corporate Development Dan Schuller. "We look forward to serving these customers and investing in the utility infrastructure necessary to provide them with the quality water and reliable water and wastewater service they deserve, and for which Aqua is known."

Aqua America is one of the largest U.S.-based, publicly traded water utilities and serves nearly 3 million people in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Indiana and Virginia. Aqua America is listed on the New York Stock Exchange under the ticker symbol WTR. Visit AquaAmerica.com for more information.

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, among others: the company's ability to invest capital in these systems. There are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements including: the successful integration of the customers and the facilities; the company's ability to execute capital improvements to ensure compliance with state and federal environmental regulations; and other factors discussed in our Annual Report on Form 10-K, which is on file with the Securities and Exchange Commission. For more information regarding risks and uncertainties associated with Aqua America's business, please refer to Aqua America's annual, quarterly and other SEC filings. Aqua America is not under any obligation — and expressly disclaims any such obligation — to update or alter its forward-looking statements whether as a result of new information, future events or otherwise.

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December 29, 2015

Aqua America Subsidiaries End 2015 With 16 Acquisitions

Three completed in 4Q - total includes four municipal systems

BRYN MAWR, Pa.--(BUSINESS WIRE)-- Aqua America, Inc. (NYSE: WTR) announced that its subsidiaries in Pennsylvania and Virginia completed purchases of one wastewater and two water utilities in the fourth quarter of this year, bringing its total to 16 acquisitions for 2015.

- Aqua Virginia acquired the assets of the Captain's Cove Utility Company in Accomack County, Virginia, which provides water and wastewater service to the Captain's Cove subdivision in that county for \$2.4 million. The utility has 977 active water customer connections and 280 active wastewater connections. There are also 2,489 availability customers who currently pay for service to properties planned for future construction.
- Aqua Pennsylvania completed the \$231,000 purchase of the Robin Hood Lakes Water Company, which serves Polk Township, helping to fill out its footprint in Monroe County where Aqua Pennsylvania serves customers in Hamilton and Ross townships. The system consists of 210 customer connections and serves approximately 600 people.

"Our business development team worked very hard this year to complete 16 acquisitions, including four municipal deals, which added 10,588 additional customer connections to Aqua's growing customer base," said Aqua America President and CEO Christopher Franklin. "We have seen more municipalities considering their options now that recent legislation in several states has allowed regulated utilities to pay fair market value for these municipal assets."

Franklin notes that as a result of these new customers and organic growth of approximately 0.6 percent, the company anticipates meeting its 2015 customer base growth goal of 1.7 to 2 percent.

"I'm confident our new customers in Pennsylvania and Virginia will find that Aqua offers exceptional service and improved infrastructure in the communities we have the privilege to serve," Franklin said. "We welcome them to Aqua."

Aqua America is one of the largest U.S.-based, publicly traded water utilities and serves nearly 3 million people in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Indiana and Virginia. Aqua America is listed on the New York Stock Exchange under the ticker symbol WTR. Visit AquaAmerica.com for more information.

This release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, among others: the company's ability to invest capital, receive governmental approval of the transition and close the acquisition. There are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements including: general economic business conditions; the company's ability to meet its anticipated growth goals, the successful integration of the customers, employees and the acquired facilities; and other factors discussed in our Annual Report on Form 10-K, which is on file with the Securities and Exchange Commission. For more information regarding risks and uncertainties associated with Aqua America's business, please refer to Aqua America's annual, quarterly and other SEC filings. Aqua America is not under any obligation — and expressly disclaims any such obligation — to update or alter its forward-looking statements whether as a result of new information, future events or otherwise.

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Illinois American Water Acquires Dana/Long Point/Reading/Ancona Public Water District Water System

Acquisition will add about 150 new direct customers in Streator District

January 26, 2016 04:14 PM Eastern Standard Time

STREATOR, Ill.--(BUSINESS WIRE)--Illinois American Water President Bruce Hauk today announced the Company's acquisition of the Dana/Long Point/Reading/Ancona Public Water District (Water District) water system. The purchase of the system adds approximately 150 customers to the Company's customer base in the Streator District and serves a population of nearly 300 residents.

Illinois American Water is familiar with the Water District water system, and vice versa. Since 2009, the Water District continued to own its water distribution system while Illinois American Water operated and maintained the system. With the dissolution of the Water District in April 2015, the Water District chose to sell the water system to Illinois American Water.

"We have a strong legacy and presence in this area and nearby Streator where we've been providing water service for over 125 years," said Bruce Hauk, president of Illinois American Water. "With this acquisition, we will expand our existing footprint and help ensure local residents have access to a long-term, reliable water supply for years to come."

Former Water District Board President Ron Guest said, "We are pleased residents will continue to have excellent water service from Illinois American Water and also have access to all of the benefits their customers enjoy. Residents are assured of not only a reliable water supply, but one of high quality."

The appraisal process used for the system was conducted under the supervision of the Illinois Commerce Commission (ICC) and established as part of the Illinois Water Systems Viability Act. According to Hauk, this new law gives communities an alternative to value their water and/or wastewater system when considering being acquired by an investor-owned water utility. He said, "Previous law only allowed the investor-owned water or sewer utility to pay the original cost minus depreciation to acquire a small system, public or private. Because of this, systems were deprived of receiving adequate value for their system."

The acquisition of the Water District water system for \$1.075 million was approved by the ICC on Dec. 16, 2015. The sale was closed today, Jan. 26, 2016, by Illinois American Water and the Water District. Customers will receive an Illinois American Water welcome packet in the mail.

Under Illinois American Water's ownership, Water District customers will experience a decrease in their water bill due to no longer being required to reimburse the Water District for the local water system infrastructure. This will result in an approximate decrease of about \$45 a month per customer. The typical residential customer uses between 4,500 and

6,000 gallons of water per month. Under Illinois American Water's rate structure, customers using about 5,000 a month will pay a little over \$44.00 a month for water service.

The Water District will be incorporated into the company's Streator District service area and join Illinois American Water's other systems as a regulated utility under the jurisdiction of the ICC. Customers with questions may contact the local operations office at 815-672-4557.

About Illinois American Water

Illinois American Water, a wholly owned subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately 1.2 million people. American Water also operates a customer service center in Alton and a quality control and research laboratory in Belleville.

Founded in 1886, American Water is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs 6,800 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found at www.amwater.com.

Contacts

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Missouri American Water Acquires City of Arnold's Sewer System

Arnold voters overwhelmingly approved referendum in November 2014

May 22, 2015 04:17 PM Eastern Daylight Time

ST. LOUIS--(BUSINESS WIRE)--Today, Missouri American Water announced the closing of the company's acquisition of the City of Arnold's sanitary sewer system. The acquisition adds 8,800 sewer customers to Missouri American Water's operations in St. Louis County.

The Missouri Public Service Commission approved the sale on April 14, 2015.

Arnold voters overwhelmingly approved a public referendum of the sale to Missouri American Water in November 2014.

Arnold is the largest city in Jefferson County. The city's population is an estimated 21,000 residents.

Missouri American Water's sewer bills will continue Arnold's current rates and rate structure -- based on winter water usage.

"Missouri American Water's St. Louis County operation serves more than one million people just a few miles north of Arnold," said Frank Kartmann, President of Missouri American Water. "We are pleased to bring our engineering and system operation expertise to deliver high quality sanitary sewer service to our new Arnold customers."

"Over the next four years, Missouri American Water will invest approximately \$5 million to upgrade and improve the infrastructure of the Arnold sanitary sewer system," said Kartmann.

The company expects a smooth transition for customers. Starting today, the sewer system is managed and operated by Missouri American Water. Sewer employees, formerly employed by the City of Arnold, will continue to provide system operation and field services now as Missouri American Water employees.

Customers are receiving information about the sanitary sewer system transition in their current City of Arnold sewer/storm water and trash bills. Missouri American Water will also mail a new customer information package to all Arnold customers prior to the first Missouri American Water sanitary sewer bills, which will arrive in August.

A new company website at www.arnoldmoaw.com will keep City of Arnold customers informed during the transition.

Missouri American Water

6/1/2017

Arnold nears sale of sewer system | Political Fix | stltoday.com

Political Fix

http://www.stltoday.com/news/local/govt-and-politics/arnold-nears-sale-of-sewer-system/article_df4bdcb0-4430-5cbc-bf1e-4255301961af.html

Arnold nears sale of sewer system

Special to the Post-Dispatch May 22, 2015

ARNOLD • Officials are set to close on the sale of the city sewer system to the Missouri American Water Co.

On Nov. 4, voters agreed to sell the wastewater utility to Missouri American Water for \$13.2 million. The city would net \$5.2 million from the sale, along with a sewer reserve fund of \$4 million.

At the meeting Thursday night, the City Council approved legislation to grant the franchise the right to use the city's infrastructure, including streets, right of ways, parks and other public places for the wastewater system. It also authorized the city to assign its Metropolitan Sewer Department obligations to the water company.

The city will lease office space to the water company on a temporary basis for about \$2,000 per month until a permanent facility can be located. In addition, five of the city's sewer employees will be employed by the company.

Dan Kroupa, city treasurer, said the sale would allow the city to pay off an existing debt of \$8 million and be relieved of the \$12 million it currently owes to MSD for the treatment plant, along with any future expansion costs.

"It puts Arnold in a good financial position," he said. "And residents will have the same level of service as they did before."

Syberg's restaurant to open in Arnold

Arnold to use money from sale of sewer system for road work



Indiana American Water Acquires American Suburban Utilities Water System in North Central Indiana

September 21, 2015 06:53 PM Eastern Daylight Time

GREENWOOD, Ind.--(BUSINESS WIRE)--Indiana American Water President Alan DeBoy today announced the company's acquisition of an investor owned water utility in north central Indiana from American Suburban Utilities. The purchase of the system increases the company's customer base by approximately 330 residents.

"The acquisition of this system will provide American Suburban water customers with lower rates and access to operations and capital management water professionals and a number of customer service options and payment methods," said DeBoy. "Indiana American Water already provides water service to the nearby City of West Lafayette in this part of the state, so this is a good fit for us and a continuation of our efforts to expand our presence across Indiana.

"The acquisition will also improve water quality for area residents," DeBoy continued. "We have made significant investments recently in new and existing water treatment facilities in the area, and customers should notice less iron and manganese in their water after we hook them into our West Lafayette water system."

The acquisition of the American Suburban Utilities system for approximately \$140,000 was approved by the Indiana Utility Regulatory Commission last month and closed by Indiana American Water and American Suburban on Monday, September 21, 2015. The American Suburban water system will be incorporated into the company's West Lafayette district, which currently serves approximately 11,000 customers or approximately 28,000 residents in the area.

About Indiana American Water

Indiana American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to more than 1.2 million people. Founded in 1886, American Water is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs 6,800 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found at www.amwater.com.

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LOCAL

McHenry-, Island Lake-area water companies sale to Aqua Illinois approved by ICC

Unanimous vote means about doubled water bills for some families, businesses locally

By **EMILY K. COLEMAN** - ecoleman@shawmedia.com

Nov. 12, 2015

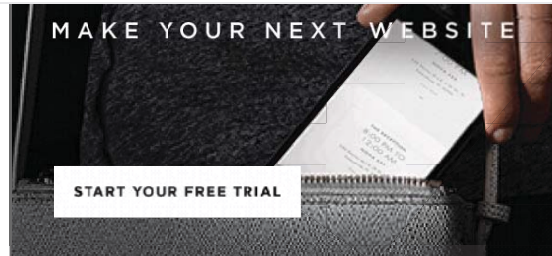
[McHENRY](#) – The sale of two small water companies in unincorporated McHenry County to the state's second-largest water and sewer utility was approved by a state regulatory agency.

The unanimous approval by the five-member Illinois Commerce Commission means 510 single-family residential users and 20 commercial users in eastern unincorporated McHenry and western unincorporated [Island Lake](#) will see their water bills about double





NORTHWEST HERALD



Aqua Illinois will take over the operations and maintenance over the Eastwood Manor and Nunda water companies in exchange for \$1.5 million in cash and company stock, according to its petition to the ICC.

The company also [purchased McHenry Shores Water Company](#) in the spring of 2014 after the owner filed for bankruptcy.

Aqua Illinois plans on investing about \$165,000 in the Eastwood system and about \$116,000 in the Nunda system over the first year, part of \$720,000 total to be spent on the two systems over the first six years, according to testimony submitted by the company's president, Craig Blanchette.

The improvements include repairs to and replacement of wells, tanks, buildings' roofs and eaves and fencing; water tower inspections and painting; the installation of a master meter at Eastwood's well house so water loss can be calculated; installing control systems for both water systems so failures can be "addressed in a timely manner;" and the replacement of all of the meters so they can be read remotely, Blanchette testified.

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PINTEREST





Pennsylvania American Water Acquires Municipal Wastewater System in York County

December 22, 2015 12:08 PM Eastern Standard Time

HERSHEY, Pa.--(BUSINESS WIRE)--Pennsylvania American Water, a subsidiary of American Water (NYSE: AWK), announced today that it has acquired the wastewater system of Fairview Township, York County. The purchase price for acquisition is approximately \$16.8 million.

The newly acquired system provides wastewater service to approximately 4,000 customers, including more than 200 businesses and commercial accounts where Pennsylvania American Water is already the provider of water service for Fairview Township.

"We are very pleased to close the year with a significant acquisition that further expands our roster of wastewater operations," said Pennsylvania American Water President Kathy L. Pape. "The acquisition provides a long-term wastewater solution and financial relief for the local community, and is also a perfect fit within our existing water footprint."

In addition to the \$16.8 million purchase price, the company agreed to invest \$13 million in system improvements and reimburse the township for up to \$1 million for a sewer line relocation project related to the Pennsylvania Turnpike.

"This transaction brings a number of benefits for our community," said Fairview Township Board of Supervisors Chairman Robert P. Stanley Jr. "As a result of the sale, township residents will receive a 50 percent reduction in real estate taxes in 2016. The sale's proceeds will help pay off approximately \$21 million in sewer debt and avoid an anticipated \$14 million in additional debt that might have been incurred to complete planned projects."

Under terms of the purchase agreement approved by the Pennsylvania Public Utility Commission, Pennsylvania American Water has adopted Fairview Township's existing wastewater rates through December 31, 2017. In addition, the four township employees who operate the wastewater system have been offered employment with Pennsylvania American Water.

As part of its \$13 million capital improvement commitment, Pennsylvania American Water will install approximately 23,500 feet of new wastewater lines to provide public wastewater service to about 200 homes and businesses in Fairview Township. Furthermore, under the company's ownership, the \$9,500 per EDU tap-in fee for existing homes and businesses, which the township had been charging, will not be required. The company's tap-in fees for new homes and business will be \$4,000 per EDU.

This transaction follows a series of acquisitions announced by the company in October, comprising five municipal and privately owned water and wastewater systems in Clarion, Northumberland and Butler counties. Pennsylvania American Water also operates wastewater systems in Adams, Beaver, Chester, Monroe, Pike and Washington counties.

Pennsylvania American Water, a subsidiary of American Water (NYSE: AWK), is the largest water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately 2.2 million people. Founded in 1886, American Water is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs approximately 6,800 dedicated professionals who provide drinking water, wastewater and other related services to an estimated 15 million people in 47 states and parts of Canada.

This release contains forward looking statements, including, among others, our plan to continue our long-term strategy of capital investment in our systems. There are important factors that could cause actual results to differ materially from those expressed or implied by such forward-looking statements including: general economic business conditions, unfavorable weather conditions, changes in regulations or regulatory treatment and availability and the cost of capital. We undertake no obligation to publicly update or revise any forward-looking statement.

Contacts

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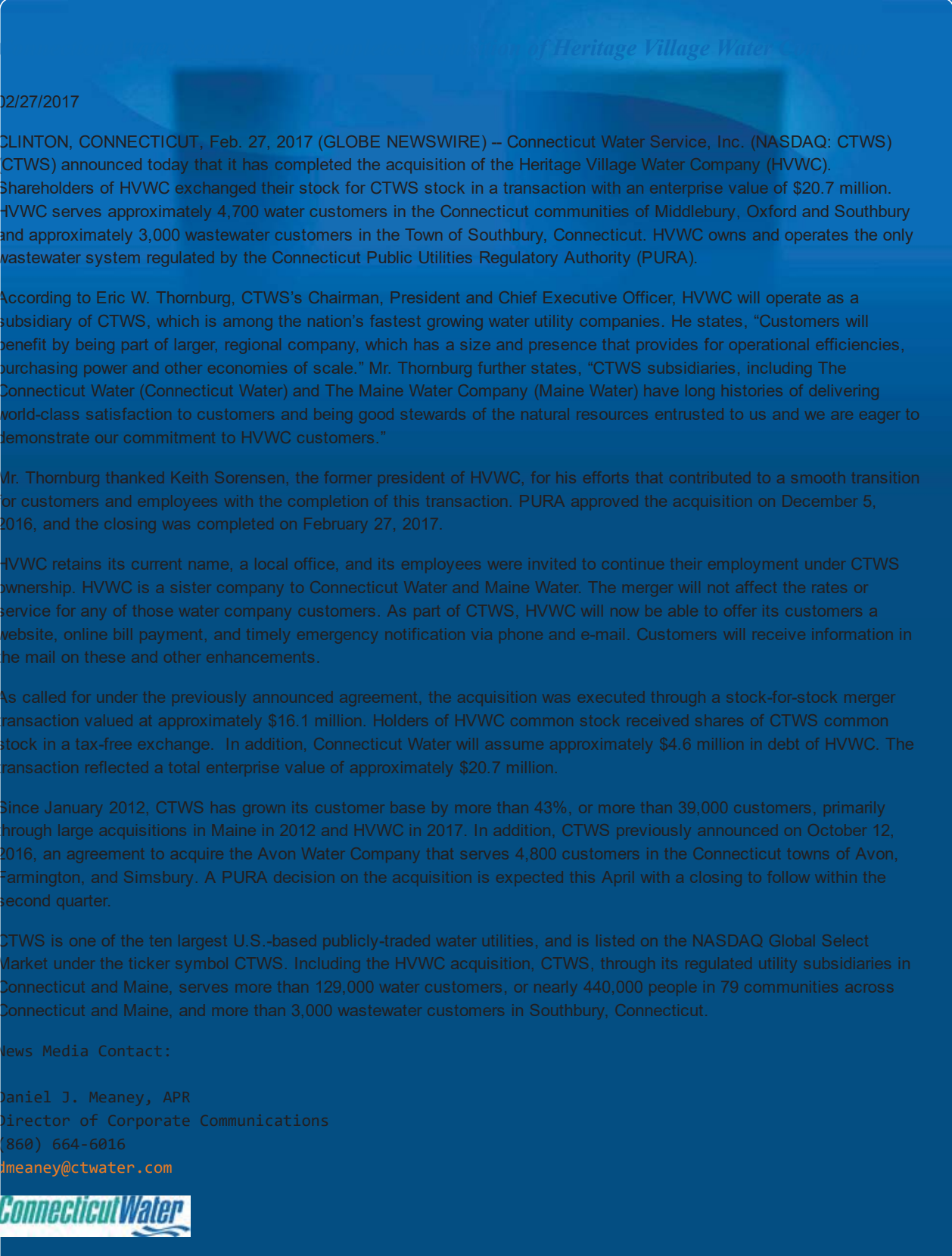
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5/31/2017

Connecticut Water - Connecticut Water Service, Inc. Completes Acquisition of Heritage Village Water Company



Connecticut Water Service, Inc. Completes Acquisition of Heritage Village Water Company

02/27/2017

CLINTON, CONNECTICUT, Feb. 27, 2017 (GLOBE NEWSWIRE) – Connecticut Water Service, Inc. (NASDAQ: CTWS) (CTWS) announced today that it has completed the acquisition of the Heritage Village Water Company (HVWC). Shareholders of HVWC exchanged their stock for CTWS stock in a transaction with an enterprise value of \$20.7 million. HVWC serves approximately 4,700 water customers in the Connecticut communities of Middlebury, Oxford and Southbury and approximately 3,000 wastewater customers in the Town of Southbury, Connecticut. HVWC owns and operates the only wastewater system regulated by the Connecticut Public Utilities Regulatory Authority (PURA).

According to Eric W. Thornburg, CTWS's Chairman, President and Chief Executive Officer, HVWC will operate as a subsidiary of CTWS, which is among the nation's fastest growing water utility companies. He states, "Customers will benefit by being part of larger, regional company, which has a size and presence that provides for operational efficiencies, purchasing power and other economies of scale." Mr. Thornburg further states, "CTWS subsidiaries, including The Connecticut Water (Connecticut Water) and The Maine Water Company (Maine Water) have long histories of delivering world-class satisfaction to customers and being good stewards of the natural resources entrusted to us and we are eager to demonstrate our commitment to HVWC customers."

Mr. Thornburg thanked Keith Sorensen, the former president of HVWC, for his efforts that contributed to a smooth transition for customers and employees with the completion of this transaction. PURA approved the acquisition on December 5, 2016, and the closing was completed on February 27, 2017.

HVWC retains its current name, a local office, and its employees were invited to continue their employment under CTWS ownership. HVWC is a sister company to Connecticut Water and Maine Water. The merger will not affect the rates or service for any of those water company customers. As part of CTWS, HVWC will now be able to offer its customers a website, online bill payment, and timely emergency notification via phone and e-mail. Customers will receive information in the mail on these and other enhancements.


As called for under the previously announced agreement, the acquisition was executed through a stock-for-stock merger transaction valued at approximately \$16.1 million. Holders of HVWC common stock received shares of CTWS common stock in a tax-free exchange. In addition, Connecticut Water will assume approximately \$4.6 million in debt of HVWC. The transaction reflected a total enterprise value of approximately \$20.7 million.

Since January 2012, CTWS has grown its customer base by more than 43%, or more than 39,000 customers, primarily through large acquisitions in Maine in 2012 and HVWC in 2017. In addition, CTWS previously announced on October 12, 2016, an agreement to acquire the Avon Water Company that serves 4,800 customers in the Connecticut towns of Avon, Farmington, and Simsbury. A PURA decision on the acquisition is expected this April with a closing to follow within the second quarter.

CTWS is one of the ten largest U.S.-based publicly-traded water utilities, and is listed on the NASDAQ Global Select Market under the ticker symbol CTWS. Including the HVWC acquisition, CTWS, through its regulated utility subsidiaries in Connecticut and Maine, serves more than 129,000 water customers, or nearly 440,000 people in 79 communities across Connecticut and Maine, and more than 3,000 wastewater customers in Southbury, Connecticut.

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Indiana American Water Acquires Russiaville Water System in Northern Indiana

Town's Residents Approved Sale in November 2014 Referendum

July 27, 2015 05:36 PM Eastern Daylight Time

GREENWOOD, Ind.--(BUSINESS WIRE)--Indiana American Water President Alan DeBoy today announced the company's acquisition of Russiaville Water, a municipal water utility located in northern Indiana. The purchase of the system adds approximately 430 customers to the company's customer base and serves a population of approximately 1,200 residents.

"The acquisition of this system will provide Russiaville customers with lower rates and access to operations and capital management water professionals and a number of customer service options and payment methods," said DeBoy.

"Indiana American Water already provides water service to the nearby City of Kokomo in this part of the state, so this is a good fit for us and a continuation of our efforts to expand our presence across Indiana.

"In a time when communities are looking for new and innovative ways to deal with challenges they're facing and hold the bottom-line on expenses, this acquisition is a great solution for the utility and its customers," DeBoy continued. "Indiana American Water brings a broad range of experience, resources and knowledge to the community through this transaction that ultimately will have a positive impact on the area."

The acquisition of the Russiaville system for approximately \$1.8 million was approved by the Indiana Utility Regulatory Commission earlier this month and closed by Indiana American Water and the Town of Russiaville on Monday, July 27, 2015. Town residents also approved the sale in a referendum conducted in November 2014. The Russiaville system will be incorporated into the company's Kokomo district, which currently serves approximately 57,000 residents.

About Indiana American Water

Indiana American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to more than 1.2 million people. Founded in 1886, American Water is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. With headquarters in Voorhees, N.J., the company employs 6,400 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found at www.amwater.com.

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Press Release

[Home](#) / [Press Release](#)



Pennsylvania American Water Announces Agreement to Acquire McKeesport Wastewater System

Company Release - 9/9/2016 10:19 AM ET

PITTSBURGH--(BUSINESS WIRE)-- Pennsylvania American Water, a subsidiary of American Water (NYSE: AWK), announced today that it has signed an asset purchase agreement to acquire the McKeesport wastewater system. The agreement signing follows recent votes by the McKeesport City Council and the Municipal Authority of the City of McKeesport (MACM) in favor of Pennsylvania American Water purchasing the wastewater assets.

"I firmly believe this transaction is being made in the best interest of the wastewater customers served by this system now and in the future," Mayor Michael Cherepko said. "It became very clear to this administration that the only way to save our community from municipal bankruptcy, while continuing to offer the same level of services our residents deserve, would be to transfer our local sewage system to a regional or national utility company. This transaction will balance the city's current financial problems, allow this administration to safeguard the city's future and ensure reliable wastewater service for 22,000 customers."

The total value of the transaction is approximately \$156 million, subject to certain adjustments provided in the agreement. The McKeesport wastewater system serves approximately 22,000 customers.

"Our company and our employees have been providing water service in the Mon Valley for decades, and we are excited for the opportunity to be the future wastewater provider to the residents of McKeesport, Dravosburg, Duquesne and Port Vue," said Pennsylvania American Water President Kathy L. Pape. "We look forward to closing the proposed acquisition and to providing wastewater services that reflect our commitment to environmental stewardship and quality customer service."

Pennsylvania American Water and the City of McKeesport will seek approval of the acquisition from the Pennsylvania Public Utility Commission (PUC) and other necessary approvals, such as the Pennsylvania Department of Environmental Protection. The MACM initially issued a request for bids in June 2016 for the potential acquisition of its wastewater system.

Pape said long-term rate stability is one of the most important benefits for wastewater customers. Under the purchase agreement, Pennsylvania American Water will not increase base wastewater rates any earlier than one calendar year after the closing.

The company's rates are regulated by the PUC and any future rate changes would have to be reviewed and approved by the PUC. Pennsylvania American Water offers its low-income wastewater customers grants and discounted service to those who qualify through its H2O Help to Others Program.

Pape said upon closing the proposed acquisition that "we look forward to welcoming the MACM's employees and customers to the Pennsylvania American Water family." The company currently expects to close the transaction in the second half of 2017, pending regulatory approvals and the satisfaction of other closing conditions.

Pennsylvania American Water, a subsidiary of American Water, is the largest investor-owned water utility in Pennsylvania, providing high-quality and reliable water and/or wastewater services to approximately 2.3 million people. Founded in 1886, American Water is the largest publicly traded U.S. water and wastewater utility company. Marking its 130th anniversary this year, the company employs more than 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found at www.amwater.com.

Cautionary Statement Concerning Forward-Looking Statements

Certain statements in this press release are forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements relate to, among other things, the execution of a definitive purchase agreement; the completion of the proposed acquisition; the ability to satisfy closing and other conditions related to the proposed transaction, including obtaining regulatory approvals; anticipated capital investments; and the ability to achieve certain benefits, synergies and goals relating to the transaction and the operations to be acquired. These statements are based on the current expectations of management of Pennsylvania American Water. There are a number of risks and uncertainties that could cause actual results to differ materially from these forward-looking statements, including with respect to (1) obtaining the regulatory and other approvals required for the acquisition; (2) satisfying other conditions to the closing of the acquisition; (3) the occurrence of the benefits and synergies expected or predicted to occur as a result of the acquisition; (4) unexpected costs, liabilities or delays associated with the acquisition or the integration of the acquired business; (5) regulatory, legislative, local or municipal actions affecting the water and wastewater industries, which could adversely affect Pennsylvania American Water; and (6) other economic, business and other factors. Forward-looking statements are not guarantees or assurances of future performance or results, and Pennsylvania American Water and its affiliates do not undertake any duty to update any forward-looking statement.

View source version on businesswire.com: <http://www.businesswire.com/news/home/20160909005544/en/>

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Source: Pennsylvania American Water



Pennsylvania American Water Signs Agreement to Acquire New Cumberland Wastewater System

May 05, 2016 11:03 AM Eastern Daylight Time

HERSHEY, Pa.--(BUSINESS WIRE)--Pennsylvania American Water, a subsidiary of American Water (NYSE: AWK), announced today that it has signed an agreement to acquire the wastewater assets of the Borough of New Cumberland in Cumberland County. The total value of the transaction is approximately \$23 million.

Pennsylvania American Water and the Borough will seek approval of the acquisition from the Pennsylvania Public Utility Commission and other necessary approvals from the Pennsylvania Department of Environmental Protection. The signing of the purchase agreement is the culmination of negotiations between Pennsylvania American Water and Borough officials since the Borough Council unanimously voted in March to accept the company's proposal. The Borough initially issued a request for bids in January 2016, for the potential acquisition of its wastewater system.

"Our company and our employees have been the water service provider for this community for many, many years, and we are excited for the opportunity to be the future provider of wastewater service to our New Cumberland customers," said Pennsylvania American Water President Kathy L. Pape. "We look forward to providing the technical expertise and financial resources needed to ensure the system meets all the environmental compliance challenges it will face in the future."

The New Cumberland wastewater system serves approximately 3,100 customers.

Pape said long-term rate stability is one of the most important benefits for wastewater customers, who faced significant rate increases if the Borough continued to operate the system. Under the purchase agreement, Pennsylvania American Water will not change wastewater rates any earlier than January 1, 2018, with a maximum 2.5 percent increase in both 2018 and 2019. The company's rates are regulated by the Public Utility Commission and future rate changes would have to be reviewed and approved by the PUC.

Pennsylvania American Water's purchase of the sewer system will enable the Borough to eliminate all debt, which is approximately \$16 million, by retiring outstanding bonds within the next three years.

Pennsylvania American Water has also committed to invest \$2 million in wastewater and/or water improvements within New Cumberland over the next five years. The company will partner with the Borough to identify areas where aging wastewater and water facilities can be replaced in conjunction with street and sidewalk improvements.

Pape said upon closing the acquisition that "we look forward to welcoming the Borough's five wastewater employees to the Pennsylvania American Water team." All active employees will be offered jobs, subject to standard pre-employment screening.

http://www.theadvocate.com/new_orleans/news/communities/article_b7ef581a-9d26-5759-b04f-a0b1e1b9695e.html

Tentative deal made for Ascension Parish to buy Peoples Water system in Donaldsonville

Ascension plans to buy Donaldsonville system

by David J. Mitchell dmitchell@theadvocate.com SEP 6, 2015 - 3:22 PM

GONZALES — Ascension Parish government has reached an agreement in principle with Peoples Water Service Co. to buy its water operations in Donaldsonville for \$5.9 million.

If the deal goes through, the parish plans to inject another \$5 million in upgrades to the water system, parish officials said.

After months of negotiations, Ascension Parish President Tommy Martinez said Friday, company and parish officials were able to agree on a number between the parish's earlier offer of \$5 million and Peoples Water's most recent price of \$7.5 million.

Story Continued Below

Many steps need to happen for the deal to go through, including state Public Service Commission review of the sale and Parish Council approval of it.

But the proposed purchase would allow the parish to combine the 3,100-customer water system serving Donaldsonville with a parish-owned system of 700 customers that exists on the city's periphery and extends far afield to the upriver community of Modeste.

The parish system, known as Ascension Consolidated Utilities District No. 1, has not been able to turn a profit, and recently, tests revealed that the brain-eating amoeba *Naegleria fowleri* was in the water.

After discovery of the amoeba July 28, the state Department of Health and Hospitals ordered the district to conduct a chlorine burn, in which chlorine levels are increased and maintained at that level for a 60-day period to kill the amoeba. State officials said the system hit the required chlorine levels Aug. 17 to start the 60-day clock on the burn.

The Peoples Water purchase would give the parish a centrally located, 3 million-gallon-per-day water plant and disinfection system on the Mississippi River with excess capacity and would allow the parish to stop buying and piping in water from neighboring parishes.

The deal's financing also is projected to turn an annual profit for the now money-losing ACUD No. 1 system but would come with a 33 percent rate increase for current Peoples Water customers in Donaldsonville to help finance the Peoples Water system upgrades and for paying off the debt owed on ACUD, parish officials said.

"I think it's a great deal for everyone concerned here, and I think it'll work and it's a step in the right direction," Martinez told the Parish Council Utilities Committee Thursday night when he first announced the agreement.

As the purchase plan is envisioned, the parish would use \$5.9 million in cash to buy the system and then would borrow \$9.1 million, either with a low-interest loan through DHH or revenue bonds. The loan would provide \$5 million in upgrades for the Peoples Water system, while the remaining \$4.1 million would pay off the remaining debt for the ACUD No. 1 system, Martinez said.

Donaldsonville officials have aired their concerns about the parish's proposed purchase and the possible rate hike, which they see as their city bailing out the debt-laden ACUD system. Those worries have spurred anew long-standing interest in Donaldsonville to buy Peoples Water, but Mayor Leroy Sullivan has acknowledged the city also would have to raise rates to finance a purchase of Peoples Water.

Martinez pointed out, though, that while ACUD No. 1 customers would not see the water rate increase as Donaldsonville customers would, existing ACUD customers would continue to pay a 10-mill property tax adopted in 2006 to pay for the debt taken out for ACUD's infrastructure. With all that taken together, he argued, overall water bills for city and existing ACUD No. 1 customers would end up about the same.

When and if the entire financing effort takes place, Martinez said, the ACUD system is projected to net \$525,000 per year in profit. The system now must rely on the general fund and other parish sources because it runs at an annual loss with its existing revenue sources.

The council previously had authorized Martinez to offer up to \$5 million to buy Peoples Water, but, at his request Thursday, the committee recommended the new offer price, plus other terms requested by Peoples Water.

The parish also must keep the 15 Peoples Water employees.

Martinez said Friday that the council could vote on the new offer as soon as Thursday evening in Donaldsonville.

Sherlock "Shockey" Gillet Jr., president of Peoples Water, confirmed Friday that the two sides had reached an agreement, but he was reluctant to offer many details due to confidentiality agreements his company has with the parish and Donaldsonville. He did say a lot of details must be worked out with the parish.

"It seems that it's going, as both partners are interested in it, and we'll just see if we get across the finish line," Gillet said.

He declined to comment on the status of Donaldsonville's purchase bid.

Peoples Water, which is based in Maryland, runs water systems in Bastrop and Pensacola, Florida, in addition to Donaldsonville. The company has been in the city since 1941.

Even if Martinez's deal gains council backing Thursday, he said the council would have to come back and adopt an ordinance — a process that happens over two meetings with extensive public advertising in advance. He said the deal would not be wrapped up until early December, just before his term as parish president ends.

Follow David J. Mitchell on Twitter, @NewsieDave.

PRESS RELEASE



FOR IMMEDIATE RELEASE

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PENNSYLVANIA AMERICAN WATER CLOSES ACQUISITION OF SCRANTON WASTEWATER SYSTEM

Transaction ranks among largest wastewater acquisition in company history

SCRANTON, Pa. (December 29, 2016) – Pennsylvania American Water, a wholly owned subsidiary of American Water, announced today that it has completed the acquisition of the wastewater system assets of the Scranton Sewer Authority (SSA). The purchase price is approximately \$195 million.

The newly acquired system provides wastewater service to approximately 31,000 customers in Scranton and Dunmore. Pennsylvania American Water already provides water service to residents and businesses in both communities. The transaction represents one of American Water’s largest wastewater acquisitions in the parent company’s history.

“This acquisition marks a significant milestone for our company and our employees, based on the size and scope of this wastewater operation and the environmental challenges facing the system,” said Pennsylvania American Water President Kathy L. Pape. “We bring both the technical expertise and financial resources to meet these challenges and provide a long-term wastewater solution, while establishing a plan to maintain reasonable rates for the customers.”

The transaction’s closing follows a lengthy regulatory approval process by the U.S. Environmental Protection Agency (EPA), Pennsylvania Department of Environmental Protection (DEP), the U.S. Department of Justice, and the Pennsylvania Public Utility Commission (PUC). The wastewater system is under an EPA Consent Decree that mandates significant upgrades, totaling an estimated \$140 million, to bring the system into environmental compliance. As the system’s owner, Pennsylvania American Water will continue the projects started by the SSA and assume the SSA’s obligations under the Consent Decree.

As part of the PUC’s approval of the purchase, Pennsylvania American Water agreed to adopt the existing wastewater rates for customers served by the SSA system, although such rates will now be billed on a monthly rather than bi-monthly basis. The PUC regulates the company’s rates, rules and regulations of service, so any future rate change will need to be reviewed and approved by the PUC.

“Our employees have been providing water service for a long time for the Scranton and Dunmore communities, and we are very pleased to now be the wastewater provider as well,” said Pape. “We are also excited to welcome the SSA employees to the Pennsylvania American Water team.”

All of the approximately 80 SSA workers who operate the wastewater system have been offered employment. The employees are represented by the Teamsters Union, Local 229, who voted on Dec. 2, to ratify a new contract offered by Pennsylvania American Water. The employees gain immediate access to the training,

PENNSYLVANIA AMERICAN WATER CLOSES ACQUISITION OF SCRANTON WASTEWATER SYSTEM

development and career opportunities in any of the operations of Pennsylvania American Water or its parent company.

Pennsylvania American Water's purchase of the sewer system enables SSA to pay off its existing debt.

Under the purchase agreement, Pennsylvania American Water also committed to bring 100 new jobs to Scranton by 2020. "As we continue to invest in the region and expand our operations, these will be important jobs to support not only Pennsylvania but the growth of our national footprint," said American Water Chief Operating Officer Walter Lynch. "We expect the new jobs to generate a very positive economic impact for the Greater Scranton Area."

This acquisition adds to the company's series of large municipal wastewater transactions. In December 2015, Pennsylvania American Water acquired the wastewater assets of Fairview Township, York County. On October 31, 2016, the company purchased the wastewater assets of the Borough of New Cumberland in Cumberland County. In September 2016, Pennsylvania American Water executed an agreement to acquire the wastewater system assets of the Municipal Authority of the City of McKeesport, Allegheny County, which is currently pending regulatory approvals. Pennsylvania American Water now operates wastewater systems in Adams, Beaver, Butler, Chester, Clarion, Cumberland, Lackawanna, Monroe, Northumberland, Pike, Washington and York counties.

Pennsylvania American Water, a wholly owned subsidiary of American Water (NYSE: AWK), is the largest water utility in Pennsylvania, providing high-quality and reliable water and/or wastewater services to approximately 2.3 million people. Founded in 1886, American Water is the largest publicly traded U.S. water and wastewater utility company. Marking its 130th anniversary this year, the company employs more than 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found at www.amwater.com.

Cautionary Statement Concerning Forward-Looking Statements

Certain statements in this press release are forward-looking statements within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements relate to, among other things, anticipated capital investments, the ability of Pennsylvania American Water to comply with the Consent Decree, and the ability to achieve certain benefits, synergies and goals relating to the transaction and the acquired operations. These statements are based on the current expectations of management of Pennsylvania American Water. There are a number of risks and uncertainties that could cause actual results to differ materially from these forward-looking statements, including with respect to (1) the occurrence of the benefits and synergies expected or predicted to occur as a result of the acquisition; (2) unexpected costs, liabilities or delays associated with the integration of the acquired business; (3) regulatory, legislative, local or municipal actions affecting the water and wastewater industries, which could adversely affect Pennsylvania American Water; (4) Pennsylvania American Water's ongoing compliance with the Consent Decree; and (5) other economic, business and other factors. Forward-looking statements are not guarantees or assurances of future performance or results, and Pennsylvania American Water and its affiliates do not undertake any duty to update any forward-looking statement.

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http://www.theadvocate.com/acadiana/news/article_d56674ad-accf-5ac7-bbcc-c581bab2de31.html

After years of complaints, 220 TESI water and sewer systems in south Louisiana may be sold to new owner

All 220 owned by troubled TESI

By Richard Burgess rburgess@theadvocate.com AUG 21, 2015 - 12:34 PM



Advocate file photo by MICHELLE MILLHOLLON -- Graeme Tuminello, far left, brought samples of the water at his house to the State Capitol in 2014. State Sen. Page Cortez, R-Lafayette, center, authored Senate Bill 425 to improve water conditions for Lafayette Parish residents. At right is Bryan Corcoran, Tuminello's neighbor in Shenandoah.

An Illinois-based company is negotiating a deal to buy 220 community water and sewer systems in south Louisiana owned by Total Environmental Solutions Inc., a company that has faced years of complaints about poor service.

The proposed sale comes after the state Public Service Commission launched an investigation last year into whether TESI was investing enough to maintain its water wells, pipes, sewer plants and other infrastructure.

Utilities Inc. has agreed in principle to pay \$9.3 million to acquire TESI's 28 water systems and 192 sewer systems in Louisiana, effectively ending that company's operations here, according to filings with the PSC.

Story Continued Below

“I think we see an opportunity to improve service and compliance,” said Don Sudduth, who oversees Utilities Inc. subsidiaries in Louisiana.

TESI has roughly 2,350 water customers and 14,387 sewer customers in 18 parishes, but operations are heavily concentrated in rural Lafayette Parish, serving subdivisions beyond the reach of municipal water and sewer systems.

Lafayette City-Parish Councilman Don Bertrand said he has heard nothing but complaints about TESI — cloudy water, substandard service, environmental issues.

“Hopefully, they will see some relief,” he said of TESI customers. “I would like to see somebody reputable who has the ability to improve the system.”

Shenandoah Estates, a subdivision near Broussard, has been a source of many of the complaints.

TESI provides water and sewer service to the subdivision, where residents have talked of spotty sewer service and of appliances and clothes fouled by water clouded with iron and manganese.

Shenandoah Estates resident Graeme Tuminello said some of the sewer problems have been addressed in recent years, but water quality continues to be an issue.

He is optimistic — but at the same time wary — about a new company taking over, and he longs for the day when basic water and sewer service is “something we don’t have to worry about.”

The proposed deal, which could come before the PSC for approval as early as this month, calls for \$23 million in upgrades spread across all the water and sewer facilities.

Customers can expect the phasing in of varying rate increases, depending on how much work is slated for the system serving their subdivision, according to the PSC filings.

“TESI is actually selling its assets to a company we believe has a better track record of taking care of these types of systems,” said Scott Angelle, a public service commissioner who represents the Acadiana area.

Angelle had called for the investigation into TESI’s finances last year, but he said it was put on hold once the sale was proposed.

“I’m glad they reached that conclusion because that’s what needs to happen,” he said.

Utilities Inc. operates more than 600 water and sewer systems, serving some 300,000 customers in 15 states, Sudduth said.

The company has owned systems in St. Tammany Parish for several years but began expanding its footprint in Louisiana last year, buying up smaller operators with the hope a larger company’s expertise and economies of scale could improve service and profits.

“We’ve been acquiring some of the troubled systems,” Sudduth said.

He said Utilities Inc. is under contract to purchase TESI, but there are still a few loose ends, such as securing pledges from state and federal regulators that Utilities Inc. would not be liable for any environmental violations that happened on TESI’s watch.


Sudduth said he is confident those issues will be resolved.

“The EPA has signaled that they do want us to be the operator,” he said.

TESI officials declined comment on the potential sale, acknowledging an interested buyer but citing a confidentiality agreement that prevents them from discussing the deal.

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Illinois American Water Acquires Village of Ransom Water System

Acquisition will add about 170 new water customers in Streator District

April 26, 2016 03:24 PM Eastern Daylight Time

RANSOM, Ill.--(BUSINESS WIRE)--Illinois American Water President Bruce Hauk, today announced the Company's acquisition of the Village of Ransom water system. The purchase of the system adds approximately 170 customers to the Company's customer base in the Streator District and serves a population of nearly 370 residents.

The Village of Ransom Board voted in favor of the sale on Sept. 9, 2015 and the Illinois Commerce Commission (ICC) approved the sale for \$175,000 on Feb. 24, 2016. Today, Illinois American Water acquired the water system.

"We look forward to investing in the Village of Ransom and ensuring customers have access to quality water service," said Hauk. "We are excited to join and contribute to the Ransom community."

Acting Village of Ransom President Matt Hauser is also enthusiastic in his support of the acquisition. He said, "We are looking forward to Illinois American Water joining our community and helping us meet our water needs. Their knowledge and ability to provide reliable water service to our residents is an investment in our public health and economic future."

Currently the drinking water in Ransom has exceedingly high levels of Radium. Bottled water will continue to be distributed at Village Hall until the Village of Ransom is connected to Illinois American Water's Streator District water distribution system. This investment of approximately \$2 million to install 10 miles of water main will ensure quality drinking water that meets all EPA requirements. Barring no unforeseen circumstances, this project is expected to be completed by the end of 2016.

Additional information will be provided to customers in an Illinois American Water welcome packet in the mail. This packet will include information about online account management, billing and more. Typical water service customers use between 4,500 and 6,000 gallons of water per month. A Village of Ransom customer using 5,000 gallons a month will pay approximately \$45 for water service. This is a decrease of about \$8 a month.

The appraisal process used for the Ransom water system was conducted under the supervision of the Illinois Commerce Commission (ICC) and established as part of the Illinois Water Systems Viability Act. According to Hauk, this new law gives communities an alternative to value their water and/or wastewater system when considering being acquired by an investor-owned water utility. He said, "Previous law only allowed the investor-owned water or sewer utility to pay the original cost minus depreciation to acquire a small system, public or private. Because of this, systems were deprived of receiving adequate value for their system."

The Ransom water system will be incorporated into the company's Streator District, which currently serves residents in Streator, Kangley, Reading, Dana, Long Point and Ancona.

About Illinois American Water

Illinois American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately 1.2 million people. American Water also operates a customer service center in Alton and a quality control and research laboratory in Belleville. American Water is the largest and most geographically diverse publicly traded U.S. water and wastewater utility company. Marking its 130th anniversary this year, the company employs 6,700 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found by visiting www.amwater.com.

Contacts

Illinois American Water

Karen Cotton

External Affairs Manager

309-566-4126

POCONO RECORD

Tobyhanna sewer system sale

By David Pierce

Pocono Record Writer

Posted Apr 30, 2016 at 11:58 AM

Updated Apr 30, 2016 at 11:58 AM

Aqua America buys municipal operation for \$5.5 million

Tobyhanna Township is about to get out of the sewage collection and treatment business through a \$5.5 million sale of its system to Aqua America.

Tobyhanna Township supervisors unanimously approved sale of the Blakeslee treatment plant, sewer lines and pump station in February. Aqua — which has operated the system for the past 18 months under a management contract with the township — will receive all future revenue generated from about 800 residential and commercial customers.

The dormant Tobyhanna Township Sewer Authority has scheduled a 2016 reorganizational meeting and vote Monday to ratify the assets purchase agreement by Aqua Pennsylvania Wastewater, Inc. This will be the sewer authority's first, and presumably last, meeting of the year. The authority met once last year, Tobyhanna Township Manager Phyllis Haase said.

The sale also requires regulatory approval from the Pennsylvania Public Utility Commission before becoming final.

The township has held public hearings and discussions on possible sale of the plant for at least the past 18 months, Haase said. One other private company investigated possible purchase of the system, but Aqua was the only company to make an offer, according to minutes of a February supervisors' meeting posted on the township website.

An outside company performed a financial analysis for the township, to determine the sewage system's value.

The sale will relieve the township of a financial burden, Haase said. Tobyhanna has an outstanding \$4.2 million note on the system, in addition to costs related to reconstruction of a treatment building.

“We still have a note on the plant,” Haase said. “It’s not like we’re walking away with \$5.5 million.”

Even with ownership of the system, Aqua America will still have to meet provisions of the township’s Act 537 plan, which sets regulations for how and where sewage is collected and treated. The 537 plan also is subject to approval by the state Department of Environmental Protection.

Customers shouldn’t notice any changes in the quality of service due to the sale, Aqua America spokeswoman Gretchen Toner said.

“We don’t plan any changes to the staff, and the rates will stay the same upon acquisition,” Toner said. “Any future rate changes would be part of a broader Aqua rate request and set and approved by the state Public Utility Commission.”

MOST POPULAR STORIES



Limerick, PA

Sewer Department

The Limerick Township Sewer Department maintains the sewer system within Limerick Township. It also handles sewer bills for approximately 6,000 customers. The department includes 17 Pump Stations throughout the Township, a King Road Plant which has a total capacity of 1,700,000 gallons but is currently running at 1,000,000 gallons per day, a Possum Hollow Plant which has a total capacity of 700,000 gallons but is currently running at 200,000 gallons per day.

Sewer Emergency

If you have a sewer emergency, please contact the plant at 610-948-4250 and a staff person will assist you.

Inspections

Inspections are made Monday through Friday from 8:00AM - 2:00PM with 48 hours notice. Please call 610-495-5750 to schedule an inspection.

Related Documents

- [Connection Permit Application \(PDF\)](#)
- [Guidelines for Residential Grinder Pumps \(PDF\)](#)
- [Township Sewer Map \(PDF\)](#)
- [Water Shut Off Policy \(PDF\)](#)

Contact Us

Frank Rodden

Superintendent

frodden@limerickpa.org

Phone: 610-948-4250

Hours: 6:30AM-2:30PM

For Billing Questions:

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[Email](#)

Phone: 610-495-5750

Hours: 8:00AM-4:00PM



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The PA PUC Approves First Wastewater Sale Under New Act 12

06/14/2017

June 14, 2017 (Philadelphia, PA) - On June 14, 2017, the Pennsylvania Public Utility Commission approved, in a four-to-one vote, Aqua Pennsylvania Wastewater, Inc.'s application to acquire the wastewater system of New Garden Township and its Sewer Authority, and to begin providing wastewater service to the residents of New Garden and Kennett Townships in Chester County. The transaction is the first to be approved using the fair market valuation approach established by the Pennsylvania State Legislature and Governor Tom Wolf with Act 12 of 2016 (Act of Apr. 14, 2016, P.L. 76, No. 12, 66 Pa. C.S. § 1329).

Act 12 is changing the landscape for municipal sales of water and wastewater systems to PUC-regulated public utility companies. The new law allows the parties to the transaction to opt in to a new method of valuation, which takes the value of the system for ratemaking purposes as either the lower of the average of two independent fair market value appraisals—one obtained by the utility buyer and one by the municipal seller—or by the negotiated purchase price. Prior to Act 12, system value for ratemaking was based on depreciated original cost, which would likely always result in a lower sale price than fair market value. In addition, the new law requires the PUC to act within six months of the acceptance of the application.

Act 12 became effective mid-June 2016, and the PUC issued its final implementation order in October 2016. The New Garden transaction was the first Act 12 application, submitted for approval in December 2016. Aqua, New Garden, and the Authority agreed to a negotiated purchase price of \$29,500,000, which turned out to be less than the average of the two appraisals commissioned by Aqua and New Garden. The valuation for ratemaking purposes was therefore set at \$29,500,000.

A protest to Aqua's application for PUC approval pursuant to Act 12 in the New Garden transaction was filed by the Bureau of Investigation and Enforcement, which sought a review of both of the fair market appraisals used, additional information about the proposed rate freeze agreed to by the parties, and a determination of whether the transaction was in the public interest under Section 1102 of the Public Utility Code.

An additional protest was filed by the Office of Consumer Advocates requesting further information to determine whether supplementary conditions should be imposed on the transaction to ensure that Aqua's existing customers are treated in a fair and just manner; how the transaction will substantially and affirmatively benefit Aqua's existing customers; and whether the agreement sufficiently provides for safe, adequate, and reasonable service at just and reasonable rates.

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An evidentiary hearing was held before an administrative law judge on February 16, 2017. After the hearing, the judge recommended the denial of Aqua's application, concluding that Aqua had failed to demonstrate by a preponderance of the evidence that the acquisition was in the public interest because it failed to demonstrate that the transaction will result in affirmative public benefits to its existing customers. The judge also concluded that Aqua had failed to support its rate stabilization plan with evidence to show its basis and impact. The judge did conclude that Aqua had demonstrated it was technically, legally, and financially fit to provide the proposed utility service, and that its proposed rate base value of \$29,500,000 was reasonable.

Exceptions to the judge's Recommended Decision were filed by the Bureau of Investigation and Enforcement, the Office of Consumer Advocates, New Garden Township, the New Garden Township Sewer Authority that had been permitted to intervene, and Aqua.

Aqua, New Garden, and the Authority argued that the judge was not following the requirements of the Act 12 process, undermining the PUC's long-standing stated goals—under its Final Policy Statement on Acquisitions of Water and Wastewater Systems—of encouraging investor-owned utilities to acquire utility systems and achieving the public benefits of regionalization and consolidation. In emphasizing the PUC's policy of encouraging regionalization, Aqua also cited its capability to relieve distressed or otherwise cash-strapped municipalities from the burden of financing needed capital improvements to aging sewer and water systems. New Garden noted that the PUC would retain the ability to regulate rates to protect the interests of Aqua's existing customers at the time of the next general rate case.

In the final four-to-one decision, the PUC departed from the judge's Recommended Decisions and approved Aqua's application, clearing the way for the completion of the first transfer of a wastewater system under Act 12. In his remarks while moving for the approval of the New Garden sale, PUC Commissioner Robert Powelson noted the PUC's continuing focus on the potential rate impact of fair market value transactions, while also noting that those issues will be appropriately addressed in Aqua's next general rate case.

At least two other Act 12 applications have been submitted to the PUC, and several other municipalities are considering a transaction. If a municipality is interested in considering a sale of their water and/or wastewater system, the first step is to determine the value of the system with the assistance of an experienced financial advisor, and examine the status of its contracts and assets, including all property, real estate, easements, and rights-of-way owned and/or used by the system.

While Act 12 has made the purchase of wastewater and water systems by investor-owned public utilities more attractive, municipal authorities are also quite active in the marketplace. Noting the recently signed deal for the purchase by the Borough of Conshohocken Authority of the Borough of West Conshohocken's sewer system, and the recently closed transaction with Bucks County Water and Sewer Authority purchasing the sanitary sewer system of Township of Springfield, Montgomery County, Dilworth Paxson attorney Thomas Wyatt stated, "As the capital costs and regulatory requirements of providing safe and reliable water and

wastewater service continue to increase, Act 12 provides a valuable new tool for municipalities wishing to monetize those assets and redeploy the proceeds to other long-lived assets or to bolster core government functions." Dilworth Paxson serves as special counsel to the selling municipality in each of those transactions.



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HOME **FRONT PAGE**

CLARION, PA WEATHER

Aqua Pennsylvania buys Emlenton wastewater system



POSTED BY: CLARIONEXTRA.COM JANUARY 21, 2017

From staff reports

EMLENTON- Aqua Pennsylvania announced Friday it has purchased the wastewater assets of the Emlenton Area Municipal Authority.

The authority serves about 450 customer connections in a portion of Richland Township, Venango County, and portions of Richland and Salem townships in Clarion County.

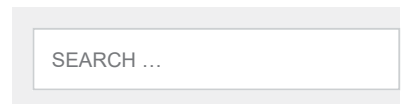
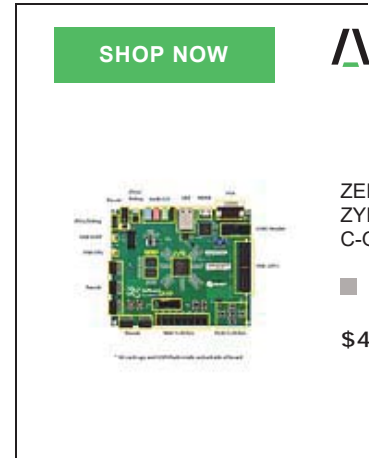
Aqua expects to spend \$1.5 million to improve the wastewater treatment plants and bring them into compliance with Pennsylvania Department of Environmental Protection (DEP) regulations. As part of the sales agreement, Aqua assumed responsibility for an existing corrective action plan imposed by the DEP.

The company also announced it is about to begin the latest in \$9 million of infrastructure improvements that have transformed the formerly troubled Emlenton water system to one that complies with federal and state drinking water laws and environmental laws. In the coming months, Aqua will complete the installation of a new source water facility along the bank of the Allegheny River for its Emlenton water treatment plant. Aqua says this project will ensure reliability and protect against impact to the federally protected fresh water club-foot mussels, which live on the riverbed, where the current 100-year-old intake is located.

Monday will be the eighth anniversary of the day Aqua announced the end of a 6-month boil water advisory for Emlenton water customers a little more than three weeks after assuming ownership of the system on Dec. 31, 2008.

Aqua outlines in a press release the improvements it has made since assuming ownership of the Emlenton water system:

- \$3.3 million for construction of a new 288,000-gallon per day water treatment plant
- \$4.5 million to replace nearly every water main in the system, connect previously dead-end mains to reduce the



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- Students shine in annual Music in Oil Country
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- Access restored to residents of Upper Florida Keys



- Pet of the day 9/12/17
- Indecent assault charge dismissed

potential for water quality issues and other distribution system improvements

– \$392,000 worth of improvements to the existing finished water reservoir, including the installation of a dome roof

Construction of the new water treatment facility was completed in 2010 and enjoys membership in the Partnership for Safe Water – a voluntary cooperative effort between the U.S. Environmental Protection Agency, the American Water Works Association and other drinking water organizations that represent more than 200 surface water utilities throughout the United States. Aqua first introduced itself to the customers of the then Emlenton Water Company in November 2008 via hand-delivered notices to customers letting them know that they had assumed operations of the system and reminding them that a six-month-old boil order remained in effect. The water system also had an outstanding consent order from the state DEP at the time.

“The improvements we’ve made to the Emlenton water system are an example of our commitment to the communities where we live and work. We operate, maintain and improve our facilities so that these communities can thrive,” Aqua Pennsylvania president Marc Lucca said.

Aqua’s Western Pennsylvania division provides water service to about 75,000 people throughout its service territory, which spans parts of Lawrence, Mercer, Forest, Crawford, Venango, Clarion, Warren, Clearfield and McKean counties.

Overall, the company serves about 1.4 million people in 32 counties throughout Pennsylvania.

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Indiana American Water Acquires Georgetown Water System in Southern Indiana

Sale will result in lower rates for Georgetown residents

November 17, 2017 01:30 PM Eastern Standard Time

GREENWOOD, Ind.--(BUSINESS WIRE)--Indiana American Water President Deborah Dewey today announced the company's acquisition of Georgetown Water, a municipal water utility located in southern Indiana. The purchase of the system adds approximately 1,300 customers to the company's customer base, which represents a population of approximately 3,500 residents.

"The acquisition of this system will provide Georgetown customers with lower rates and access to operations and capital management water professionals and a number of customer service options and payment methods," said Dewey. "Indiana American Water already provides water to several nearby communities and to the Town of Georgetown through a wholesale contract, so this is a good fit for us and a continuation of our efforts to expand our presence across Indiana."

"In a time when communities are looking for new and innovative ways to deal with challenges they're facing and hold the bottom-line on expenses, this acquisition is a great solution for the utility and its customers," Dewey continued.

Georgetown Town Council President Everett Pullen is also enthusiastic in his support of the acquisition. "Our community was struggling to address pressing local infrastructure needs," said Pullen. "This acquisition will help us to address these concerns while also lowering customers' water rates. We appreciate the experience, knowledge and resources that Indiana American Water brings to the table and look forward to working with them."

The acquisition of the Georgetown system for approximately \$6.4 million was approved by the Indiana Utility Regulatory Commission in October and closed by Indiana American Water and the Town of Georgetown on Wednesday, Nov. 15, 2017. The Georgetown system will be incorporated into the company's Southern Indiana district, which currently serves approximately 100,000 residents.

About Indiana American Water

Indiana American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor owned water utility in the state, providing high-quality and reliable water and/or wastewater services to more than 1.3 million people. With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly-traded water and wastewater utility company. The company employs more than 6,800 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 47 states and Ontario, Canada. More information can be found by visiting www.amwater.com.

Contacts

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Fix a Leak Week: March 19-25, 2018

EACH DROP ADDS UP

When you see a faucet dripping water, you don't fix it as often as it sounds. In gallons that the leak can use the money. Your time. These small leaks can add up to big costs. Here are some facts that will help you to see just how much water is being wasted and how to prevent it from putting on unnecessary costs.

- 180** Gallons of water are wasted each year for every 1-gallon-per-minute leak.
- 1** BACKYARD SWIMMING POOL. THE AVERAGE HOUSE WASTES ENOUGH WATER FROM LEAKS PER YEAR TO FILL 1 BACKYARD SWIMMING POOL.
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- 13,000** GALLONS OF WATER SAVED PER HOMEOWNERS WHO FIX SPRINGHOUSE LEAKS.
- 5+** LAUNDRY LOADS OF WATER LOST TO LEAKS EACH WEEK PER HOUSEHOLD.
- 1 IN 10** HOMES HAVE LEAKS THAT WASTE 100+ GALLONS PER DAY.

MORE THAN 1 TRILLION GALLONS OF WATER WASTED ANNUALLY NATIONWIDE FROM HOUSEHOLD LEAKS.

WHEN TO FIX A LEAK AND WHEN TO CALL FOR HELP

Mar 19, 2018

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American Water is a proven leader in promoting diversity at all levels—including our board, which in 2017 had a higher proportion of female members than any other S&P 500 company.





Aquarion Water Co. sale to Eversource approved

By **Max Sullivan**

msullivan@seacoastonline.com

Posted Dec 7, 2017 at 5:51 PM

Updated Dec 7, 2017 at 5:51 PM

HAMPTON -- Eversource Energy's purchase of Aquarion Water Company has been approved by state and federal regulators, the energy company announced Monday, finalizing the \$1.675 billion acquisition announced earlier this year.

The purchase was effectively approved by the New Hampshire Public Utilities Commission and a similar regulatory body in Massachusetts in October, according to Eversource spokesman Martin Murray. State regulators in Connecticut approved the sale Nov. 28, and Murray said a review period for the purchase by the Department of Justice passed without the federal agency attempting to intervene.

Eversource heads have said the purchase, first announced in June, will not result in rate increases to customers of Aquarion, which provides public water to Hampton, North Hampton and Rye.

The purchase makes Eversource the only U.S.-based electric utility to own a water utility, the company stated. Aquarion will remain a locally-owned company and operate as a wholly owned subsidiary of Eversource, according to Eversource. The water company serves 230,000 customers in New Hampshire, Massachusetts and Connecticut.

"By joining with Aquarion we are excited to add clean water to (our) commitment to a clean, sustainable future," said Eversource CEO Jim Judge in a statement Monday.

Aquarion President and CEO Charles V. Firlotte said Eversource and his company share a commitment to operational excellence that will "bode very well for our customers and the communities we serve."

"We're very proud of the history of superior customer satisfaction earned by our employees and we look forward to growing it even further with the Eversource team," said Firlotte.

Some local officials opposed the purchase and attempted to intervene against it during the PUC's review of the purchase. State Reps. Renny Cushing, D-Hampton, and Mindi Messmer, D-Rye, said they fear the purchase will create too great of a monopoly and lead to rates rising. Eversource and Aquarion have said the regulatory process prevents companies from raising rates arbitrarily. The PUC determined it did not need to rule on whether to approve the purchase because the sale was not believed to affect Aquarion's rates, terms, service or operation, according to an Oct. 13 letter from PUC Executive Director Debra Howland. State law requires the PUC accept or deny acquisitions if those are impacted. Cushing and Messmer appealed the PUC's decision, but the PUC denied that appeal in a Nov. 29 ruling.

The towns of Hampton and North Hampton were also interveners in the PUC proceedings, but those towns withdrew their opposition to the purchase, according to Howland.



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Kentucky American Water Acquires Water Assets of Eastern Rockcastle Water Association in Livingston

February 28, 2018 04:11 PM Eastern Standard Time

LEXINGTON, Ky.--(BUSINESS WIRE)--Kentucky American Water announced today that it has acquired the water assets of Eastern Rockcastle Water Association in Livingston, Ky., in Rockcastle County. The transaction, completed today, adds approximately 610 water customers in Rockcastle and Jackson counties to the Kentucky American Water system. The acquisition of the system expands the company's total service area to portions of 14 Kentucky counties.

"We are pleased to welcome Eastern Rockcastle Water Association customers to Kentucky American Water," said Nick Rowe, president of Kentucky American Water. "Our company will bring to the community 24-hour customer service for water service emergencies, unique water system expertise, and additional capital resources for water infrastructure investment. We look forward to providing excellent service to these new customers and being an active corporate citizen in the community."

"The Eastern Rockcastle Water Association board is pleased to announce the sale of the water system to Kentucky American Water," said Russell Barron, president of Eastern Rockcastle Water Association. "This was a decision we took seriously. We are confident that the system will be in great hands with Kentucky American Water, and that our customers will benefit by receiving great service."

About Kentucky American Water

Kentucky American Water, a subsidiary of American Water (NYSE: AWK), is the largest investor-owned water utility in the state, providing high-quality and reliable water and/or wastewater services to approximately half a million people.

About American Water

With a history dating back to 1886, American Water is the largest and most geographically diverse U.S. publicly traded water and wastewater utility company. The company employs more than 6,900 dedicated professionals who provide regulated and market-based drinking water, wastewater and other related services to an estimated 15 million people in 46 states and Ontario, Canada. American Water provides safe, clean, affordable and reliable water services to our customers to make sure we keep their lives flowing. For more information, visit amwater.com and follow American Water on [Twitter](#), [Facebook](#) and [LinkedIn](#).

Contacts

Tweets by @kyamwater

KY American Water Retweeted



What is water recycling? What is greywater? Add to your “water vocabulary,” as Dr. Ben Stanford is ready to drop knowledge into the bucket on #WaterStreet. wp.me/p9he05-B5



3h

KY American Water Retweeted



Happy Pi Day! When it comes to water and mathematics, it's all about keeping things flowing! youtube.com/watch?v=B1rjSa...

YouTube @YouTube

Calculate the flow rate in gpm of water traveling at 5 ft/sec in a 24 inch pipe.

Known: Velocity = 5 ft/sec, Diam = 24 inch = 2 ft

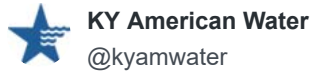
Unknown: gpm

$Q = \text{Area} \times \text{Velocity}$

$A = 0.785 \times D \times D$
 $A = 0.785 \times 2 \text{ ft} \times 2 \text{ ft}$
 $A = 3.14 \text{ ft}^2$

$Q = 15.7 \text{ ft}^3/\text{sec}$

$\frac{15.7 \text{ ft}^3}{\text{sec}} \times \frac{60 \text{ sec}}{1 \text{ min}} \times \frac{7.48 \text{ gal}}{1 \text{ ft}^3} = 7,046 \text{ gpm}$



On this [#InternationalWomensDay](#) we honor not only our own hard-working women of water, but women across the globe.



ORIGINAL

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

JOINT PETITION OF INDIANA-AMERICAN WATER)
COMPANY, INC. ("INDIANA AMERICAN") AND THE)
CITY OF CHARLESTOWN, INDIANA)
("CHARLESTOWN") FOR APPROVAL AND)
AUTHORIZATION OF: (A) THE ACQUISITION BY)
INDIANA-AMERICAN OF CHARLESTOWN'S WATER)
UTILITY PROPERTIES (THE "CHARLESTOWN)
WATER SYSTEM") IN CLARK COUNTY, INDIANA IN)
ACCORDANCE WITH A PURCHASE AGREEMENT)
THEREFOR; (B) APPROVAL OF ACCOUNTING AND)
RATE BASE TREATMENT; (C) APPLICATION OF)
INDIANA AMERICAN'S AREA ONE RATES AND)
CHARGES TO WATER SERVICE RENDERED BY)
INDIANA AMERICAN IN THE AREA SERVED BY THE)
CHARLESTOWN WATER SYSTEM ("THE)
CHARLESTOWN AREA"); (D) APPLICATION OF)
INDIANA AMERICAN'S DEPRECIATION ACCRUAL)
RATES TO SUCH ACQUIRED PROPERTIES; (E) THE)
SUBJECTION OF THE ACQUIRED PROPERTIES TO)
THE LIEN OF INDIANA AMERICAN'S MORTGAGE)
INDENTURE AND THE POTENTIAL ENCUMBRANCE)
FROM RIGHT OF FIRST REFUSAL; AND (F) THE)
PLAN FOR REASONABLE AND PRUDENT)
IMPROVEMENTS TO PROVIDE ADEQUATE,)
EFFICIENT, SAFE AND REASONABLE SERVICE TO)
CUSTOMERS OF THE CHARLESTOWN WATER)
SYSTEM.)

CAUSE NO. 44976

VERIFIED COMPLAINT AND REQUEST FOR)
COMMISSION INVESTIGATION BY NOW! INC. AND)
CUSTOMERS OF THE CITY OF CHARLESTOWN)
AGAINST INDIANA AMERICAN WATER COMPANY)
REGARDING ITS PROPOSED ACQUISITION OF THE)
CITY OF CHARLESTOWN'S WATER UTILITY)

CAUSE NO. 44964

APPROVED: MAR 14 2018

ORDER OF THE COMMISSION

Presiding Officers:

James F. Huston, Interim Chairman

Carol Sparks Drake, Administrative Law Judge

NOW!, Inc. ("NOW"), on behalf of more than 10 water utility customers of the City of Charlestown, Indiana, ("Charlestown" or "City") filed a Verified Complaint Against Indiana-

American Water Company, Inc. (“Indiana-American”) on July 7, 2017, with the Indiana Utility Regulatory Commission (“Commission”) in Cause No. 44964. In its complaint, NOW requested the Commission: (1) investigate Indiana-American’s proposed purchase of Charlestown’s water utility; (2) temporarily bar Indiana-American from acquiring the City’s water utility pending the outcome of the Commission’s investigation, and (3) enter such orders as are supported by the evidence and the Commission finds are in the public interest. On July 25, 2017, Indiana-American filed its Answer to Complaint responding to NOW’s complaint.

On July 31, 2017, NOW filed a motion requesting leave under 170 IAC 1-1.1-1-8(c) to amend its complaint. A docket entry was issued on August 17, 2017, granting this motion, and NOW filed an amended complaint in Cause No. 44964 on September 13, 2017. Indiana-American filed an Answer to Verified Amended Complaint on October 3, 2017. The Indiana Department of Natural Resources (“IDNR”) was served with NOW’s amended complaint but did not respond or otherwise appear.

On August 17, 2017, Indiana-American and Charlestown (collectively “Joint Petitioners”) initiated Cause No. 44976 by filing a Joint Petition seeking the Commission’s approval of Indiana-American’s acquisition of Charlestown’s water utility properties under Ind. Code § 8-1-30.3-5(d) prior to Joint Petitioners closing on this acquisition. That same day, the Joint Petitioners filed their cases-in-chief in Cause No. 44976, with the exception of Charlestown’s notice to its customers of the proposed acquisition. This notice was late filed with the Commission on September 1, 2017.¹

A prehearing conference was held in Cause No. 44964 on August 18, 2017. At the prehearing conference, Indiana-American, the Indiana Office of Utility Consumer Counselor (“OUCC”), and NOW agreed a motion would be filed to consolidate Cause No. 44964 with Cause No. 44976 and that NOW would become an intervenor in Cause No. 44976. NOW filed its Petition to Intervene on August 21, 2017, in Cause No. 44976, which was granted on August 29, 2017. On August 28, 2017, Joint Petitioners, the OUCC, and NOW filed a Joint Request for Consolidation and Stipulation as to Procedural Matters requesting Cause No. 44976 be consolidated with the proceedings in Cause No. 44964 and stipulating upon a procedural schedule in the consolidated proceeding. A docket entry was issued on September 21, 2017, consolidating Cause No. 44964 with Cause No. 44976, vacating the prehearing conference scheduled in Cause No. 44976, establishing a procedural schedule in this consolidated Cause, and directing that future filings under Cause No. 44964 be filed under Cause No. 44976.

On August 29, 2017, NOW filed a Motion to Dismiss Joint Petition And/Or Motion to Strike Joint Petitioners’ Case-In-Chief in Cause No. 44976. On August 31, 2017, the OUCC filed OUCC’s Motion to Dismiss Joint Petitioners’ Cause. Joint Petitioners filed a response to the two motions to dismiss on September 8, 2017, to which the OUCC filed a response on September 15, 2017, in support of its motion to dismiss.

¹ At the conclusion of the evidentiary hearing in this consolidated proceeding, Joint Petitioners, NOW, and the OUCC agreed that for purposes of computing the 210 day period within which Ind. Code § 8-1-30.3-5(e) requires an Order to be issued upon the Joint Petition, this time period shall commence on September 1, 2017, when notice of Indiana-American’s proposed acquisition was confirmed in Joint Petitioners’ case-in-chief.

On November 2, 2017, NOW and the OUCC each filed their cases-in-chief. Charlestown, on November 15, 2017, moved to strike the testimony of NOW's witness Michael Williams. On November 20, 2017, Joint Petitioners filed their rebuttal testimony. The City's motion to strike was denied by docket entry issued on November 28, 2017.

On November 22, 2017, the Presiding Officers issued a docket entry denying both NOW's and the OUCC's motions to dismiss. On November 27, 2017, NOW filed a Motion for Summary Judgment and Designation of Evidence, and Brief in Support of Motion for Summary Judgment. Charlestown filed a response on December 7, 2017, in opposition to NOW's summary judgment motion. This motion remains pending.

On November 29, 2017, the Presiding Officers issued a docket entry requesting certain information from Joint Petitioners and the OUCC. Joint Petitioners and the OUCC each filed their respective response to the docket entry questions on December 4, 2017. On December 7, 2017, the Presiding Officers issued a docket entry requesting additional information from Joint Petitioners. On December 11, 2017, Indiana-American and Charlestown filed their respective responses to this second docket entry request.

Pursuant to notice given and published as required by law, proof of which was incorporated into the record by reference and placed in the official files of the Commission, an evidentiary hearing in consolidated Cause Nos. 44976 and 44964 was held commencing at 9:30 a.m. on December 13, 2017, in Hearing Room 222 of the PNC Center, 101 West Washington Street, Indianapolis, Indiana. The hearing continued for three successive days, concluding on December 15, 2017.

Based upon the applicable law and the evidence, the Commission finds:

1. Commission Notice and Jurisdiction. Notice of the evidentiary hearing in this consolidated proceeding was published as required by law. Indiana-American is a public utility as defined in Ind. Code § 8-1-2-1 and is subject to the jurisdiction of the Commission. The Charlestown water system is a municipally owned utility as defined in Ind. Code § 8-1-2-1(h) and is subject to the Commission's jurisdiction for purposes of rates and charges and financing. Under Ind. Code ch. 8-1-30.3 and Ind. Code § 8-1.5-2-6.1, the Commission has jurisdiction over the proposed sale of a municipally owned utility; therefore, the Commission has jurisdiction over Joint Petitioners and the subject matter of this proceeding.

2. Joint Petitioners' and NOW's Characteristics. Indiana-American is an Indiana corporation engaged in providing water utility service to the public in numerous communities throughout Indiana, including Clark County, for residential, commercial, industrial, public authority, sale for resale, and fire protection purposes. Its principal office is in Greenwood, Indiana, and Indiana-American serves approximately 300,000 water customers. Indiana-American also provides sewer utility service in two Indiana communities.

Charlestown is a municipality located in Clark County, Indiana. Charlestown owns and operates a water system serving approximately 2,898 metered accounts. Charlestown also supplies water on a wholesale basis to the Sellersburg and Marysville water utilities. The

municipally owned water system Charlestown operates (“Charlestown’s Water System”) is near Indiana-American’s existing Southern Indiana Operations. Charlestown’s Water System includes a well field along the Ohio River, four raw water wells, approximately 15,000 feet of raw water transmission main, a 1.5 million gallon ground storage tank, pump station and treatment facility, a 250,000 gallon stand pipe, a 500,000 gallon elevated tank, approximately 290,000 feet of water mains, 488 valves, and 296 hydrants.

NOW is an Indiana nonprofit corporation that, on behalf of more than 10 Charlestown water customers, opposes the sale of Charlestown’s water utility.

3. Relief Requested. Joint Petitioners filed Cause No. 44976 requesting that the Commission (1) grant such approvals as necessary to consummate the acquisition of the assets comprising the Charlestown Water System by Indiana-American on the terms described in the Joint Petition and the Asset Purchase Agreement between Indiana-American and Charlestown; (2) authorize Indiana-American, without regard to the amounts recorded on Charlestown’s books and records and without regard to grants or contributions Charlestown may have received, to record for ratemaking purposes as the net original cost rate base of the assets being acquired an amount equal to the full purchase price, incidental expenses, and other costs of acquisition, allocated among utility plant in service accounts as proposed in Joint Petitioners’ evidence; (3) authorize Indiana-American to apply the rules and regulations and rates and charges generally applicable to Indiana-American’s Area One rate group, as the same may be changed from time to time, for service Indiana-American provides in the areas Charlestown Water System currently serves; (4) authorize Indiana-American to apply its existing depreciation accrual rates to the Charlestown Water System; and (5) approve encumbering the properties comprising the Charlestown Water System with the lien of Indiana-American’s mortgage indenture. In the Joint Petition, Charlestown and Indiana-American also asked the Commission to approve Indiana-American’s plan for reasonable and prudent improvements to provide adequate, safe, and reasonable service to Charlestown’s water customers, but that request was subsequently withdrawn.

The relief NOW requests pursuant to its Amended Complaint and pending summary judgment motion is discussed in Finding Nos. 9 and 10 below.

4. Joint Petitioners’ Direct Evidence. Joint Petitioners presented the direct testimony of G. Robert Hall, Mayor of Charlestown, Donna S. Coomer, Clerk-Treasurer of Charlestown, William A. Saegesser, President of Saegesser Engineering, Inc., Matthew Prine, Community and Government Affairs Director for Indiana-American, Gary M. VerDouw, Director of Rates and Regulatory for Indiana-American, and Stacy S. Hoffman, Indiana-American’s Director of Engineering.

A. Ind. Code §§ 8-1.5-2-6.1 and 8-1-30.3-5. Mr. Prine testified regarding Ind. Code § 8-1.5-2-6.1 (“Section 6.1”) which governs the relief Joint Petitioners seek. He explained that prior to the passage of Section 6.1, Ind. Code ch. 8-1-30.3 (“Chapter 30.3”) was established as a new chapter during the 2015 legislative session governing the process and standards to be applied in the sale of distressed utility property. According to Mr. Prine, during the 2016 legislative session, Section 6.1 was passed as a new section in the Code, and Chapter 30.3 was amended. Mr. Prine testified that together, these changes redefined the Commission’s

role and the standards to be applied in approving the sale or disposition of non-surplus municipal utility property.

Mr. Prine testified that one result of these legislative changes is to encourage regionalization as a strategy in addressing the State's ongoing infrastructure needs. He noted that Chapter 30.3 allows a public water or wastewater utility acquiring the utility property of a municipally owned distressed utility to petition the Commission to include the cost differential associated with the acquisition as part of its rate base. He also noted the term distressed utility is defined by statute (Ind. Code §§ 8-1-30.3-2 and -5(a)). Mr. Prine stated that an Indiana Finance Authority report on water utility infrastructure needs throughout Indiana (the "2016 IFA Report") encouraged system regionalization and emphasized the need for: (1) prioritizing replacement of aging or failing water mains, and (2) developing a schedule of asset management that organizes the construction needed to maintain and extend the life of a utility system. Mr. Prine testified that the Charlestown Water System faces challenges in the areas the 2016 IFA Report highlights.

Mr. Prine further testified that due to these legislative changes, the process for the sale of a municipally owned water or sewer utility has changed. He explained that a municipality must now obtain the Commission's approval to sell its water or sewer utility, with this grant of approval determined under Section 6.1 or Ind. Code § 8-1-30.3-5 ("Section 30.3-5"), as applicable.

Mr. Prine sponsored a flow chart describing the process for sales by municipally owned utilities of nonsurplus property. He explained that under the current process, the Mayor/Council President or Council of a city or town considering an acquisition must appoint three appraisers to appraise the system's value. Upon return of the appraisal, the municipality must hold a public hearing on the proposed acquisition. If the municipality decides to sell, an ordinance must be adopted approving the proposed acquisition. For ordinances adopted pursuant to this process after March 28, 2016, Commission approval is required under Section 6.1. The standard for approval is whether the sale, according to the proposed terms and conditions, is in the public interest. If a petition is filed pursuant to Ind. Code § 8-1-30.3-5(d) ("Section 30.3-5(d)") and the Commission makes the required findings set forth in Ind. Code § 8-1-30.3-5(c) ("Section 30.3-5(c)"), according to Mr. Prine, Section 6.1 directs that the proposed sale is in the public interest. Mr. Prine stated that under Section 6.1, the purchase price is deemed to be reasonable if it does not exceed the appraised value. Mr. Prine described why he believes the proposed acquisition of the Charlestown Water System followed this process. On cross-examination, Mr. Prine acknowledged that NOW filed a summary judgment motion alleging Charlestown failed to comply with the first step in the appraisal process under Ind. Code § 8-1.5-2-4, but he testified that although no public hearing was conducted within 90 days after the appraisal was first returned, the appraisal was recertified, and the hearing timely occurred after this return. Mr. Prine testified that because the Charlestown Water System is considered a distressed utility, the Joint Petitioners filed the petition in this Cause under Section 30.3-5, and he outlined the various requirements of Sections 30.3-5(c) and (d).

Mr. Prine testified the proposed purchase price to be paid to Charlestown is \$13,403,711, which consists of the appraised value of the water utility assets (\$13,244,711) plus the appraised

value of the real property included in the acquired assets (\$205,000), which total \$13,449,711. From this amount, the appraised value of the wells and well pumps were excluded (\$46,000) because the wells are being leased to Indiana-American, not sold; therefore, the purchase price equals the appraised value of the system.

With respect to the requirements in Section 30.3-5(d), Mr. Prine testified that he believes the notices required under Section 30.3-5(d) have been provided and, as explained in Mr. VerDouw's testimony, that the proposed acquisition will not cause the rates to Indiana-American's customers to increase by more than 1% of Indiana-American's base annual revenues. He testified that Indiana-American has a plan for reasonable and prudent improvements to the Charlestown Water System, but he deferred to Mr. Hoffman to describe this plan.

After describing why he believes Indiana-American satisfied each of the requirements in Sections 30.3-5(c) and 30.3-5(d), Mr. Prine summarized how Section 6.1 interacts with Chapter 30.3. According to Mr. Prine, if the purchase price of the proposed acquisition does not exceed the appraised value and the elements of Sections 30.3-5(c) and 30.3-5(d) are met, Section 6.1 directs the issuance by the Commission of a final order approving the sale within 210 days after the filing of Joint Petitioners' case-in-chief. The order is to authorize the acquiring utility to record as the net original cost of the utility plant in service assets being acquired: (1) the full purchase price; (2) incidental expenses; and (3) other costs of acquisition, allocated in a reasonable manner among appropriate utility plant in service accounts.

B. Proposed Acquisition and Asset Purchase Agreement. G. Robert Hall, Mayor of Charlestown, testified upon the purpose for the proposed acquisition of Charlestown's Water System. Mayor Hall provided an overview of Charlestown's water utility and its history of brown water issues. He testified that when he was first elected, Charlestown's water utility system was in a woeful state. In 2000, it was common to have two to three water leaks and 15 to 20 brown water complaints daily, and Mayor Hall noted that, as explained by Ms. Coomer, the City's Clerk-Treasurer, no records or water system maps predating 2000 exist. These utility records were lost or destroyed by prior administrations. Mayor Hall testified that after his election, Charlestown embarked on a plan to remediate its water utility, and its system is now significantly better. Today, the utility has approximately two to three water leaks per month in contrast to per day earlier and eight to ten brown water calls per month in contrast to the 15 to 20 per day experienced in 2000. Mayor Hall explained that while a remediation program was implemented and system improvements have been made, significant work remains to solve the City's brown water issues. He testified that Charlestown estimates the next phase of improvements will cost at least \$7.2 million, with these improvements more fully described in the testimony of Charlestown's engineering consultant, Mr. Saegesser.

Mayor Hall testified that if the City makes the recommended system improvements, it is estimated water rates will increase to at least \$46 per month for an average residential customer to allow the utility to recover its costs. Mayor Hall explained that Charlestown's inability to remediate the brown water issues is one of the reasons Charlestown decided to sell its utility to Indiana-American. Mayor Hall believes Indiana-American has the expertise and access to capital to effectively resolve these issues. Additional benefits from the proposed transaction, from the Mayor's perspective, include taking politics out of raising water rates, providing a lower level of

investment risk to the City's residents and businesses, and facilitating economic development. He explained that political administrations often avoid rate increases to escape political backlash which results in deferred maintenance. In Charlestown's case, according to Mayor Hall, deferred maintenance allowed manganese and minerals to build up within the distribution system pipes creating the brown water problems current Charlestown residents must deal with. Mayor Hall opined that taking politics out of water rates is a good thing for Charlestown. Mayor Hall also shared that Charlestown is poised for growth and wants a professional water company to handle that growth so the City can focus on creating economic development opportunities rather than fixing the brown water issues.

Mayor Hall testified the City followed the statutory process required to sell its water assets. Initially, he delegated his authority to Saegesser Engineering, Inc. to retain the appraisers. Contracts were entered into to appraise the City's utility property. Mayor Hall explained that the appraisal was initially provided to Charlestown in November 2016, but the City did not make a decision on the sale within the statutory timeframe established in Ind. Code § 8-1.5-2-5. Instead, Charlestown continued to consider potentially selling its water utility and later asked the appraisers to review their appraisal. The appraisers did so and returned the appraisal to Charlestown as of April 1, 2017. Mayor Hall sponsored a copy of the original appraisal as Attachment GRH-2 and a copy of the appraisal recertification as Attachment GRH-3.

Mayor Hall testified the proposed sale was discussed at an April 3, 2017, meeting of the Common Council of the City of Charlestown ("City Council"), and he was authorized by unanimous vote to begin sale negotiations. The City Council set a public hearing on the appraisal for May 11, 2017, and provided notice of this hearing on April 11, 2017. Mayor Hall stated the City Council introduced an ordinance approving the proposed acquisition on July 3, 2017, and adopted the ordinance on July 6, 2017. The ordinance the City Council adopted and the relevant meeting minutes were included as attachments to the testimony of Charlestown witness Ms. Coomer.

Mayor Hall testified that Charlestown intends to use the sale proceeds to pay off outstanding water utility revenue bonds of approximately \$1,125,000, establish a fund from which to make sewer utility bill credits to lessen the immediate rate impact of the water utility acquisition on Charlestown's residents by, in essence, providing a lower aggregate water and sewer bill, and to establish a strategic reserve with the remaining proceeds. Mayor Hall testified the sewer utility credits will be \$20 per month the first year, \$15 per month the second year, \$10 per month the third year, and \$5 per month in year four, with the total cost of the sewer credit package being approximately \$1,740,000. The record is unclear upon how many of Charlestown's sewer customers are water customers.

On cross-examination, Mayor Hall explained that through the City Council's public process, Charlestown's citizens and its elected officials had many opportunities to assess the proposed transaction and ask questions. Ultimately, four of the five City Council members, including the member elected at-large, voted favorably upon the proposed transaction.

Ms. Coomer, Clerk-Treasurer of Charlestown, testified regarding Charlestown's financial records related to its water utility. Ms. Coomer stated the water utility's capital improvements

have historically been funded from non-utility funds. She testified that Charlestown complied with Indiana law in using non-utility funds to invest in the water utility, and no State Board of Accounts (“SBOA”) audit has found fault with Charlestown expending non-utility funds on the water utility. Ms. Coomer testified that Charlestown issued water utility revenue bonds in 2006, as authorized by the Commission in Cause No. 42878, and the bond proceeds were spent and system improvements made consistent with the City’s testimony in Cause No. 42878. Ms. Coomer further testified that Charlestown has not disbursed or otherwise directed water utility funds in violation of Indiana law, including Ind. Code § 8-1.5-2-25.

Ms. Coomer testified regarding Charlestown’s capital asset ledger. She explained on cross-examination that this ledger is a document she prepares with the help of her deputy and the SBOA. Due to the lack of records prior to 2000, it has been difficult to create this document. Ms. Coomer stated that she expects the appraisal in this Cause to be a more accurate assessment of Charlestown’s assets than the ledger, because the appraisal was conducted by disinterested professionals.

Ms. Coomer testified in support of the proposed transaction between Charlestown and Indiana-American. In response to questions from the Presiding Officers, she confirmed that the three Charlestown officials elected by the entire City—herself, Mayor Hall, and the at-large City Council member—support the proposed transaction.

Mayor Hall also testified regarding Charlestown’s negotiations with Indiana-American and the resulting Asset Purchase Agreement. He noted the Agreement includes \$7.2 million of guaranteed investment by Indiana-American in the water utility, so the City anticipates significant reductions in brown water incidents. He testified the negotiations leading to the Asset Purchase Agreement were conducted at arm’s length. In addition, Mayor Hall testified regarding the agreement entered into between Charlestown and Indiana-American to lease Charlestown’s well field, as described in Mr. Saegesser’s testimony.

Mr. Saegesser testified regarding Charlestown’s rights to its well field and Indiana-American’s intention to lease the wells. Mr. Saegesser testified that while Charlestown does not own all of the real estate used for its wells, it holds an “Easement for Right of Way Water Wells” granted by the United States Department of the Army in 1978. He believes Charlestown could sell the property outright that it owns in fee, but could not sell the property subject to the Easement Right of Way for Water Wells. Mr. Saegesser testified that Charlestown decided to lease its wells to Indiana-American in connection with the proposed transaction and enter into a Well Field Lease Agreement for this purpose prior to closing.

The Asset Purchase Agreement, sponsored by Mr. Prine as Attachment MP-3,² sets forth the terms and conditions of the sale of the Charlestown Water System. Mr. Prine testified that Indiana-American proposes to acquire all of the property described in Section 2.1 of the Asset Purchase Agreement, apart from the well field and related equipment and assets, at a purchase price of \$13,403,711; provided, Indiana-American is also not acquiring: (1) insurance policies

² During the evidentiary hearing it was observed that the version of the Asset Purchase Agreement attached to Mr. Prine’s testimony was not executed. A copy of the fully executed Asset Purchase Agreement was obtained and admitted into evidence as Joint Petitioners’ Ex. 11.

and rights thereunder; (2) personnel records and other records Charlestown is required to retain in its possession; (3) office furniture and equipment, including computers; (4) employee benefit plans and employment/independent contractor contracts; (5) cash, cash equivalents, and short-term investments; (6) accounts receivable, or (7) customer service connections. Mr. Prine testified the purchase price was determined based upon the appraised value of the Charlestown Water System. He stated that consummation of the transaction is conditioned on obtaining certain approvals from the Commission, including recognition of the full purchase price plus transaction costs in net original cost rate base, and the application of Indiana-American's Area One rates to Charlestown's water customers.

Mr. Prine testified that Charlestown's water customers and Indiana-American's existing customers will benefit from the acquisition. First and foremost, Charlestown customers will benefit from Indiana-American rectifying the City's water quality issues. Mr. Prine testified these customers will also benefit from full-time management of their water system, including, but not limited to, a full-time operations staff, 24/7 customer service and emergency response, and enhanced security measures, along with full-time functional specialists in the areas of engineering and water quality. He stated Charlestown customers will also benefit from improvements to service as discussed in Mr. Hoffman's testimony. Mr. Prine testified that customers will benefit from the acquisition, as the system will be included in Indiana-American's prioritization model, allowing planning and asset management needs like those the 2016 IFA Report identified to be met.

Mr. Prine testified that given Charlestown's water quality issues, continuation of current ownership could lead to a troubled future for the Charlestown Water System. He echoed Mayor Hall's testimony that Indiana-American is in a better position than the City to address these issues. Both Mr. Prine and Mr. VerDouw testified that Section 30.3-5(d) did not require Indiana-American to provide notice to its customers because the proposed acquisition will not increase Indiana-American rates in an amount greater than 1%. Mr. VerDouw testified on cross-examination that this notice was, however, provided to comply with the Commission's Order in Cause No. 44915 issued on October 11, 2017, regarding Indiana-American's acquisition of Georgetown's water utility properties ("*Georgetown Order*") directing utilities to over inform, not under inform, their customers of an acquisition that will impact their rates.

C. Brown Water Issues and Indiana-American's Plan for Improvements.

Mr. Saegesser, President of Saegesser Engineering, Inc., testified regarding Charlestown's water quality issues and what Charlestown has done to address these. He testified that Charlestown's brown water issues are caused by build-up over several decades of manganese and minerals in the City's storage tanks and distribution system that was not removed by regular flushing and cleaning. Mr. Saegesser explained that because Charlestown's brown water issues are a distribution system problem, Charlestown cannot solve these issues with water from a different source. Mr. Saegesser testified the next phase of the City's improvements is projected to cost \$7.2 million. These improvements will primarily address water age issues. Mr. Saegesser further testified that a \$7.2 million upgrade to Charlestown's water utility will place significant rate pressure on Charlestown's ratepayers, and for this reason, among others, he believes the proposed asset sale to Indiana-American is in the best interests of Charlestown and its residents.

Mr. Hoffman, Director of Engineering at Indiana-American, testified regarding the approach Indiana-American will likely take to address the challenges associated with Charlestown's system. He noted Charlestown has taken steps to address the accumulated manganese and significantly reduced the brown water occurrences, but optimal results have not yet been achieved. Mr. Hoffman testified that Indiana-American will thoroughly test, evaluate, and understand the raw water concentrations of manganese. But, Indiana-American's first objective, according to Mr. Hoffman, is to assure the quality of the water its customers consume, so the first priority of its capital investment in Charlestown's Water System will be dedicated to that assurance. In describing Indiana-American's plan for improvements as contemplated in Section 30.3-5(d), Mr. Hoffman testified that Indiana-American will identify improvement needs after a more thorough evaluation of the Charlestown Water System. He had not studied the improvements proposed in the Saegesser Preliminary Engineering Report, but he expects many of these could be valuable for effective operation of Charlestown's system.

Mr. Hoffman explained that Indiana-American's history of delivering quality water is built on a commitment to higher operational standards than may be fiscally prudent or possible for smaller water utilities. He testified that Indiana-American's plan describes the method Indiana-American intends to follow to achieve the end of improving the Charlestown Water System and its operations as opposed to identifying specific projects. Consistent with prioritizing water quality, the initial issue to be addressed is the distribution system because the water age in the distribution system is resulting in chlorine residual readings that violate primary drinking water standards and pose a public health risk from microbial contamination. Mr. Hoffman described how Indiana-American, through its plan, intends to address water age issues, investigate source water, and thoroughly test, evaluate, and understand the raw water concentrations of manganese along with likely distribution system improvements. He explained that depending on the results of these actions, Indiana-American may take subsequent actions, including locating another source of supply farther away from the existing location, treating Charlestown's groundwater supply, and/or vigorous unidirectional flushing of the distribution system.

Mr. Hoffman testified on cross-examination that Indiana-American's plan is to study the issues and does not specify the solutions for resolving Charlestown's water quality issues, as it is impossible for Indiana-American to identify these prior to operating the system. He explained that Charlestown's Water System has a myriad of problems that will require a variety of solutions. Indiana-American's plan includes possible solutions to address the system's problems which will be evaluated after Indiana-American acquires the system.

D. Accounting and Ratemaking Treatment. Mr. VerDouw testified that Indiana-American is proposing to record the net original cost of the Charlestown Water System in the manner reflected in the proposed journal entry shown on Attachment GMV-1. He noted that the purchase price for the acquisition includes a cost differential as that term is defined in Chapter 30.3. Based on Charlestown's Annual Report to the Commission as of December 31, 2016, which was filed with the Commission on April 25, 2017, Mr. VerDouw testified the total rate base for the Charlestown Water Utility is \$1,761,014. The difference between the original cost rate base requested in this Cause (\$13,583,711) and the rate base included in the City's Annual Report to the Commission as of December 31, 2016, (\$1,761,014) is \$11,822,697 which, according to Mr. VerDouw, could be considered the cost differential amount in this acquisition.

The investor-supplied original cost rate base for the Charlestown Water System would be equal to the full purchase price plus incidental expenses and other acquisition costs. Mr. VerDow testified that the original cost rate base being requested in this Cause is \$13,583,711. Joint Petitioners' Ex. 5 at 6. He testified that with the proposed journal entry, Indiana-American is allocating the full purchase price plus transaction costs (including the cost differential) in a reasonable manner among appropriate utility plant in service accounts.

Mr. VerDow testified that the accounting and ratemaking treatment reflected in the proposed journal entry complies with the treatment granted under Section 30.3-5(c) where all of the factors set forth in that section are met. He stated that if the Commission makes the required findings, Ind. Code § 8-1-30.3-5(e) specifies the accounting entries for recording the acquisition that the Commission shall authorize, similar to the directive in Section 6.1(f).

Mr. VerDow stated that the proposed purchase price is reasonable and the result of arm's length negotiations. He testified that under Section 6.1(d), the purchase price is deemed conclusively reasonable if it does not exceed the appraised value, and that in this case, it does not. Mr. VerDow further testified that the depreciation accrual rates to be applied to the Charlestown Water System assets will be the rates the Commission approved in Cause No. 43081 on November 21, 2006, as included in the calculation of rates with the approval of Indiana-American's rate case in Cause No. 43187 on October 10, 2007.

Mr. VerDow testified that Indiana-American has access to the necessary funds to support the acquisition, with those funds initially coming from internally generated funds. He stated that the projected investment to acquire the Charlestown Water System is equal to approximately 1.5% of Indiana-American's total capital structure as of June 2017, and thus, Indiana-American does not believe the acquisition will impair its ability to raise necessary capital on reasonable terms while maintaining a reasonable capital structure. Mr. VerDow also described the encumbrance to be placed on the Charlestown Water System assets as a result of the acquisition under Indiana-American's general mortgage, which secures most of Indiana-American's utility property for the benefit of Indiana-American's bond holders.

Mr. VerDow stated that Indiana-American intends to apply Indiana-American's Area One tariff rates for water service and private and public fire service which are on file with and approved from time to time by the Commission to Charlestown's water customers. Application of the Area One rates is supported by Charlestown's close proximity to Indiana-American's Southern Indiana Operations. Mr. VerDow testified that the monthly bill for a residential customer using 5,000 gallons will increase from \$18.03 to \$44.17 for customers with fire protection, based on the current tariff in effect for both utilities; however, Mr. VerDow reiterated that Charlestown is and has been unable to undertake the necessary improvements to its system to furnish and maintain adequate service. Its projected rates, if the improvements Mr. Saegesser recommended in the amount of \$7.2 million were implemented, will exceed Indiana-American's Area One rates in effect as of the hearing. Mr. VerDow further testified that given the relatively small size of Charlestown's system, Indiana-American's rates are not expected to increase unreasonably as a result of acquiring the Charlestown Water System.

5. OUC's Evidence. Margaret Stull, Senior Utility Analyst in the OUC's Water/Wastewater Division, testified upon the proposed accounting transaction and

recommended changes in the proposed journal entry. She expressed concern that Indiana-American proposes to record Charlestown's assets at their gross value (replacement cost), less accumulated depreciation (percent depreciated). According to Ms. Stull, Indiana-American's proposed journal entry will cause \$25,705,535 of utility plant in service to be recorded for assets with a purchase price of \$13,583,711. Based on Indiana-American's effective depreciation rate of 2.86%, depreciation expense on the acquired Charlestown assets under Indiana-American's proposed journal entry will be \$729,315 in contrast to a depreciation expense of \$382,631 based on the purchase price. Ms. Stull testified that on an annual basis Indiana-American will recover excess depreciation expense of \$346,684 under its proposed journal entry, nearly double the depreciation expense on the assets acquired. Over the life of the acquired assets, Indiana-American will receive a return of its investment that is \$12,121,824 greater than its actual investment. She also noted the proposed total replacement cost of \$25.7 million is a hypothetical cost that has not been incurred; consequently, Ms. Stull asserted Indiana-American should not be allowed to record this level of utility plant in service and charge ratepayers for depreciation expense based on a hypothetical replacement cost that has not actually been incurred.

Ms. Stull sponsored the OUCC's proposed journal entry as Attachment MAS-1 which records gross utility plant in service equal to the purchase price, plus transaction costs, and no accumulated depreciation. She testified that the journal entry Mr. VerDouw sponsored as Attachment GMV-1 is inconsistent with the accounting and ratemaking treatment Ind. Code § 8-1-30.3-5 authorizes. While Indiana-American proposes to record the purchase of Charlestown's water utility assets in a manner that will permit Indiana-American to earn depreciation expense on more than \$25 million, Ms. Stull testified that under Ind. Code § 8-1-30.3-5 it is the purchase price that should be reflected in the accounting entry as the original cost of the utility plant in service of the assets acquired. She testified that the OUCC does not oppose Indiana-American's acquisition of Charlestown's utility assets, but Indiana-American should be required to record the transaction in a manner consistent with the OUCC's proposed journal entry. The increase to Indiana-American's rate base is the same in both proposed accounting transactions, but the OUCC's journal entry only allows Indiana-American a return of its actual investment.

Carl N. Seals, Utility Analyst with the OUCC, testified that under Section 30.3-5(d), Indiana-American is required to provide "a plan for reasonable and prudent improvements to provide adequate, efficient, safe, and reasonable service to customers of the distressed utility [Charlestown]." Ind. Code § 8-1-30.3-5(d)(4). Mr. Seals testified that Indiana-American did not provide such a plan and, therefore, has not qualified for the statutory remedy. Mr. Seals stated that instead of providing the required plan, Indiana-American suggested it needs to more thoroughly evaluate the Charlestown Water System, including gaining experience through operating the system. From Mr. Seals' perspective, Mr. Hoffman spoke in terms of possible solutions, likely improvements, and further evaluation, but what Mr. Hoffman identified in his testimony is not sufficiently developed to constitute a plan for purposes of Section 30.3-5(d)(4). He further testified that the OUCC expects to see identified projects, a timeline for when these will commence, an estimation of the associated costs, and an explanation of how the projects will address Charlestown's system's problems.

Mr. Seals reviewed the "possible solutions" Mr. Hoffman mentioned. These consisted of: (a) addressing the distribution system, (b) thoroughly testing, evaluating, and understanding the raw water concentrations of manganese, (c) locating another source of supply farther away from

the existing location, (d) treatment of the existing well supply by removal of manganese through oxidation and filtration or adsorption, (e) filter backwashing, and (f) unidirectional flushing. Mr. Seals opined that none of the foregoing “possible solutions” were developed. Instead, with respect to whether filtration should be installed, Mr. Hoffman stated that it would be prudent to investigate filtration. Joint Petitioners’ Ex. 6 at 14. Mr. Seals testified that Mr. Hoffman had also not yet studied the improvements proposed in Mr. Saegesser’s Preliminary Engineering Report, but simply expected that many of the proposed improvements could be valuable for effective operation of the system. Public’s Ex. 3 at 4. From Mr. Seals’ perspective, prospective investigations and expectations do not equate to a plan under Section 30.3-5(d)(4).

Mr. Seals stated that the OUCC sought additional information from Indiana-American upon the required plan. In response to the OUCC’s request for all plans for reasonable and prudent improvements to the system, Indiana-American provided the following:

Please refer to page 18 of Mr. Hoffman’s direct testimony for reply to this request, which is attached as “OUCC DR 1.15-R1.pdf”. Additionally, Indiana American anticipates making improvements to the supervisory and data acquisition (SCADA) system. A detail cost of possible SCADA improvements is not determined at this time. Indiana American will also further evaluate customer meter performance and/or age upon acquisition to determine a schedule for replacing meters. The timing and cost of any meter replacements is not determined at this time. As Indiana American identifies further improvement needs with more thorough evaluation and with direct operation of the Charlestown system, Indiana American will incorporate the improvement needs in its capital planning and investment prioritization models. (emphasis added)

From Mr. Seals’ perspective, Indiana-American only has a plan to form a plan. He stated that neither SCADA nor replaced meters address Charlestown’s water quality issues. Mr. Seals testified that through Mr. Hoffman’s testimony referenced in the above response Indiana-American provides little in the way of a tangible “plan for reasonable and prudent improvements.” Section 30.3-5(d)(4). He asserted that Indiana-American’s promise to “[identify] further improvement needs with more thorough evaluation ... of the system” is not providing a plan for reasonable and prudent improvements. Mr. Seals testified that without more detail, the OUCC and the Commission lack the information necessary to determine whether Indiana-American’s plan includes improvements that are reasonable and prudent and otherwise satisfy the criteria of Section 30.3-5(d)(4). Public’s Ex. 3 at 5.

Mr. Seals also testified upon the appraisal in this Cause. He took exception with the appraised value of the meters, stating the meters are likely at the end of their useful life.

James T. Parks, P.E., Utility Analyst II with the OUCC, testified regarding the appraisal performed for this acquisition. Mr. Parks reviewed flaws in the appraisal process which, from his perspective, resulted in a Valuation Report that failed to account for asset condition, relied on understated asset ages, overstated total replacement costs, and included assets that will not be acquired. (Public’s Ex. 4 at 3, 5). Mr. Parks testified that Charlestown started its water system in

1937, and the system grew during World War II when the Indiana Army Ammunition Plant fostered economic and population growth in the Charlestown area; consequently, large portions of Charlestown's water system were installed during this growth period, with the utility's capital asset ledger showing water main additions totaling 126,000 feet between 1935 and 1938. (Public's Ex. 4 at 31). Yet, the Valuation Report in Table 1 does not list any pipe from the 1930s and 1950s which is inaccurate. Mr. Parks' criticisms challenged why the appraisers did not use more accurate installation dates for certain assets and categories of assets.

He was also critical of the Valuation Report not accounting for asset condition. Mr. Parks testified the appraisers calculated depreciation to determine present value based solely on asset age (Public's Ex. 4 at 11), thereby failing to account for asset condition. (Public's Ex. 4 at 3). Mr. Parks disagreed with the water main and service line ages used in the report. He stated it appeared the appraisers made simplifying assumptions that had the effect of distributing water main installation evenly throughout the decades (excluding the 1930s and 1950s). (Public's Ex. 4 at 28). He criticized the appraised value of the fire hydrants and mains, stating that both the present value and age of fire hydrants used in the appraisal are inaccurate or at best unreliable. According to Mr. Parks, the appraisers used fire hydrant dates to establish the age of water mains, but Charlestown has replaced more than half of its fire hydrants since 2000. He stated that in older water distribution systems where hydrants, but not water mains, have been replaced, relying on hydrant age to establish water main ages can create erroneous results that understate water main ages and overstate present values.

Mr. Parks testified that the methodology the appraisers used to value Charlestown's utility assets included flaws that affect the values across most categories of plant. He stated that of particular concern is the failure to incorporate into the valuation the poor condition of certain assets within Charlestown's Water System. Mr. Parks further testified that the values presented in the Valuation Report in Tables 1 and 2 are based upon flawed assumptions, including unsupported cost estimates, that cast doubt on the replacement cost and the present values on which the utility purchase is based. (Public's Ex. 4 at 35-36). Mr. Parks testified that when the flaws that arise due to inaccurate assumptions are corrected, the present value of Charlestown's Water Services is \$955,000 less. (Public's Ex. 4 at 23). Mr. Parks also took issue with the appraised value of multiple assets, including a ground storage tank, a 258,000 gallon standpipe in which finished water is stored, a 500,000 gallon elevated water tank, and the pump building. In each instance, he testified upon why the Valuation Report overstated the value of these assets.

Edward Kaufman, Assistant Director of the OUCC's Water-Wastewater Division, also testified regarding the appraisal, opining that the Valuation Report includes mathematical, mechanical, and methodology flaws. Mr. Kaufman's appraisal concerns include the asset life determination methods used, the assumption that Water Services have a 50% remaining life, the depreciation percentage calculations, and the appraisers' failure to consider the condition of system assets. By way of example, Mr. Kaufman testified that the appraisal is approximately two years stale, using data from 2015, which failed to capture two years of depreciation. This use of stale data caused the valuation to be overstated by approximately \$620,000. He stated the valuation methodology used also inappropriately combines elements of a reproduction costs study and a replacement costs study, thereby overstating the value. Finally, Mr. Kaufman testified that the appraisal in this Cause is much shorter and less detailed than other appraisals he has reviewed and as such is atypical.

Mr. Kaufman also testified that Indiana-American failed to comply with the notice requirement in Section 30.3-5(d)(2). Mr. Kaufman testified that based upon his calculations, Indiana-American's revenue requirement will increase by more than 1%. His calculations showed Indiana-American's proposed acquisition will exceed the statute's 1% threshold requiring notice; therefore, he testified notice to Indiana-American's customers was required in this Cause. Mr. Kaufman testified that although Indiana-American indicated notice was provided to its customers in the November 2017 billing cycle, this notice did not mitigate his concerns because Indiana-American should have provided its customers with notice before petitioning the Commission for approval of the proposed acquisition. He also criticized the notice Indiana-American provided because it failed to substantively notify Indiana-American's customers that the proposed Charlestown acquisition will cause their rates to increase or the anticipated scope of the increase, which he testified are necessary elements of the notice to Indiana-American's existing customers. Mr. Kaufman testified that Indiana-American has not satisfied the notice required under Section 30.3-5(d)(2).

6. NOW's Direct Evidence. Robert L. Isgrigg, P.E., provided testimony on behalf of NOW. He testified upon the proposed sale of the Charlestown water utility from an engineering perspective. Mr. Isgrigg expressed concerns regarding the ownership of the City's well field. He stated that the well field deed requires IDNR's approval prior to transferring easements to other parties, and this requirement presumably applies to Indiana-American.

Mr. Isgrigg also expressed concerns regarding whether the sale will be equitable to Charlestown's customers. He testified the sale will increase water bills for Charlestown's customers 150% with no immediate improvement in water quality. He also testified the proposed sale does not advance the goal of improving Charlestown's water quality. Mr. Isgrigg disagreed with Mr. Saegesser's report indicating a \$7.2 million investment is needed to mitigate Charlestown's water quality problems. He testified there are at least four viable, cheaper alternatives that could be used together or separately to improve Charlestown's water quality. These alternatives include simple basic changes to Charlestown's operations and maintenance procedures, as well as pumping or buying water from a different source, including the IDNR. Mr. Isgrigg testified that any of these alternatives would be cheaper; however, purchasing fully-treated water from the IDNR is an especially appealing alternative because it is simple and very quick. He suggested the sale between Indiana-American and Charlestown, without investigating or comparing the IDNR option, has an implication of collusion that does not look after the best interests of Charlestown's customers.

Based on his experience, Mr. Isgrigg testified that Mr. Saegesser's \$7.2 million improvement plan does not constitute reasonable and prudent improvements if the goal is "to ensure that [Charlestown] customers ... will receive adequate, efficient, safe and reasonable service." He further testified that generating \$13.4 million from this sale to fund private development projects seems like an insufficient reason for the sale and that raising customers' rates for this purpose is not equitable to Charlestown's utility customers.

Mr. Michael Williams, CPA, also testified on NOW's behalf regarding whether the City observed the accounting guidelines established by the State Board of Accounts ("SBOA") and Indiana law. Mr. Williams testified regarding audit exceptions found during the SBOA's 2008-2009 audit. He suggested that because audit exceptions were found in the 2008-2009 audit,

exceptions should have been found in the 2010 and 2011 audits. Mr. Williams stated his belief that it is improbable Charlestown could have corrected its “serious” violations in one year and suggested exceptions will be found in the audit SBOA is currently conducting.

In addition to this testimony, NOW offered the transcript, exhibits, and findings of fact from a trial court preliminary injunction hearing concerning City building code enforcement actions. A nexus between the facts and issues in the injunction proceeding and the water utility sale was not established, although NOW proffered related arguments.

7. Joint Petitioners’ Rebuttal Testimony.

A. Accounting Transaction. In his rebuttal testimony, Mr. VerDouw testified that the accounting entry Indiana-American proposed in this Cause did not deviate from the approach Indiana-American used in *Indiana American Water & Town of Georgetown*, Cause No. 44915 (IURC 10/11/2017) (“*Georgetown*”), but he agreed that Ms. Stull’s journal entry is consistent with the statute and is reasonable; therefore, Mr. VerDouw testified that Indiana-American accepts the OUCC’s proposed accounting transaction, and he sponsored a revised journal entry as Attachment GMV-R1. Mr. VerDouw noted that this accounting treatment does not impact net original cost rate base, and Indiana-American will record \$13,583,711 as net original cost rate base.

B. Plan for Reasonable Improvements. Mr. Hoffman responded to Mr. Seals’ criticisms that Indiana-American has presented a plan to develop a plan, but not the plan Section 30.3-5(d)(4) requires. Mr. Hoffman disagreed with Mr. Seals and believed it was critical to consider the context in which the statute requires a plan in order to understand what is required. He explained that the acquisition will not be completed until after Commission approval is obtained. According to Mr. Hoffman, Indiana-American cannot and should not perform the evaluations necessary to develop the specific projects and details Mr. Seals testified he expects to see. Mr. Hoffman testified that what Indiana-American can do—and has done—is identify steps Indiana-American will take to implement improvements to plant and operations that will solve Charlestown’s water quality problems.

Mr. Hoffman testified on rebuttal that following closing, the next steps include further identifying improvement needs through: (1) a more thorough evaluation of the Charlestown system and (2) direct operation of the system. Joint Petitioners’ Ex. 6-R at 6. He opined that in the context of this acquisition case, Indiana-American’s plan is the method Indiana-American intends to follow to achieve improved operations. Joint Petitioners’ Ex. 6-R at 5. He described the plan, in summary form, as the following:

- (1) Addressing distribution system and chlorine issues that Mr. Saegesser identified to improve chlorine residual and reduce water age;
- (2) Investigating source water through test drilling, pumping, and sampling, and individual sampling of existing wells; and
- (3) Testing, evaluating, and understanding the raw water concentrations of manganese.

Depending upon the results of the above, potential subsequent actions include:

- (4) Locating another source of supply further away from the existing location;
- (5) Treating groundwater supply by removal of manganese through oxidation and filtration or adsorption and filter backwashing; and
- (6) Vigorous unidirectional flushing of the distribution system.

Joint Petitioners' Ex. 6-R at 5-6).

Mr. Hoffman reiterated that the statute only requires Indiana-American have a plan for improvements and does not require a specific list of projects. On rebuttal and during cross-examination, he contrasted the plan required in connection with the proposed acquisition with the plan that is approved for energy utilities in connection with transmission and distribution system improvements pursuant to Ind. Code ch. 8-1-39 ("TDSIC"). According to Mr. Hoffman, the word "projects" is instructional because unlike the TDSIC statute, the distressed utility statute does not reference "projects." Mr. Hoffman opined that the difference between the two statutes makes sense because in a TDSIC proceeding, the utility is ultimately requesting rate relief for specific improvement projects associated with what it already owns, which is not the case for a utility in an acquisition proceeding. Mr. Hoffman stated Indiana-American has presented a plan for reasonable and prudent improvements to provide adequate, efficient, safe, and reasonable service to customers of the distressed utility, including a plan to provide these customers with water quality comparable to what Indiana-American provides to other customers of Indiana-American's Southern Indiana Operations.

In response to a docket entry question, Mr. Hoffman set forth categories of capital investments and estimates of potential costs. He explained that the investment shown covers five years, and some of the investments may obviate the need for other investments. The total estimated investments was \$13.2 million. Joint Petitioners' Ex. 8, Response to Request 7. In addition, the Asset Purchase Agreement requires Indiana-American to make investments of at least \$2.3 million each of the first two years following closing and a total investment of \$7.2 million within five years of closing. Attachment MP-3 at 11.

C. Appraisal Criticisms. Mr. Hoffman responded to Mr. Parks' appraisal criticisms, noting that while Mr. Parks was critical of the appraisal, he did not recommend the appraisers' valuation be changed or testify to an alternative appraisal value. Mr. Hoffman further criticized Mr. Parks' overall approach by noting there is no single right answer upon the value of an asset that every appraiser must arrive at and that qualified appraisers may arrive at different asset values based on their experience, review of information, and judgments. While stating there is no single right answer upon the value of an asset, on cross-examination Mr. Hoffman acknowledged there can be wrong answers. Mr. Hoffman was, generally, critical of Mr. Parks' approach because Mr. Parks frequently concluded asset values were overstated but never criticized an asset value for being understated. Mr. Hoffman also responded to Mr. Parks' criticism of the valuation of specific assets.

Mr. Hoffman testified that Mr. Parks improperly seized upon language in the Commission's *Georgetown Order* as inviting his criticisms of the appraisal. *Georgetown Order*

at 15; Joint Petitioner's Ex. 6-R at 9. Mr. Hoffman testified that he does not believe Mr. Parks' approach is what the Commission had in mind when indicating that it is appropriate to consider whether the appraisal was conducted appropriately. Mr. Hoffman explained that he believes the Commission was referring to whether the statutory requirements for an appraisal have been met, including appointing three disinterested, qualified appraisers consistent with Ind. Code § 8-1.5-2-4 who satisfy the qualifications in Ind. Code § 8-1.5-2-5(a)(1).

Mr. Hoffman testified that the appraisal in this Cause was conducted appropriately because three disinterested, qualified appraisers were appointed and conducted the appraisal. Mr. Hoffman testified both in his rebuttal and on cross-examination that Mr. Parks' criticisms are biased as an OUCC witness and are ultimately irrelevant to the Commission's determination in this Cause upon the reasonableness of the purchase price. On cross-examination, Mr. Prine echoed Mr. Hoffman's rebuttal testimony in claiming that the OUCC's witnesses are not disinterested persons per the meaning of the appraisal statute. Mr. Hoffman recommended that the independent qualified appraisers' valuation be recognized as complying with the statute. On cross-examination, Mr. Prine acknowledged, however, that a purchaser will pay more for a used car if it is in good condition than if it is in poor condition, but the appraisal for the proposed acquisition is based on the age of the assets without taking into consideration their condition. He also testified on cross-examination that Indiana-American did not evaluate the condition of the assets before entering into the Asset Purchase Agreement or perform an internal evaluation of the appraisal. According to Mr. Prine, Indiana-American does not second guess the appraisal. Mr. Hoffman concurred on cross-examination that Indiana-American had not analyzed the accuracy or quality of the appraisal.

In his rebuttal, Mr. VerDouw also responded to the OUCC's appraisal criticisms. Mr. VerDouw noted that despite the appraisal concerns the OUCC's witnesses raised, no OUCC witness recommended changing the appraised value or offered the Commission guidance upon how the OUCC's criticisms should be reflected in the journal entry for ratemaking purposes. Mr. VerDouw quantified the impact of the OUCC's collective criticisms and testified the total effect would reduce the appraised value (\$13,403,711) by \$1,966,500. On cross-examination, Mr. VerDouw acknowledged that the OUCC's witness Kaufman quantified an additional \$620,000 overstatement in the value of Charlestown's assets attributable to not capturing two years of depreciation, yielding a total overstatement of approximately \$2.6 million. Mr. VerDouw testified that he is not suggesting the Commission reduce the appraised value and does not believe the OUCC provided a basis for doing so. He reiterated that the appraisal satisfies the requirements of Ind. Code § 8-1.5-2-5 because it was conducted by three professionals possessing the qualifications the statute requires. He testified that reducing the appraised value is inconsistent with Ind. Code § 8-1.5-2-5 which provides that an appraisal signed by two appraisers constitutes a good and valid appraisal. Mr. VerDouw further testified that the OUCC witnesses are merely second guessing the work of qualified appraisers.

D. Notice Criticisms. Mr. VerDouw also responded to Mr. Kaufman's assertion that Indiana-American failed to satisfy the notice required under Section 30.3-5(d)(2). Mr. VerDouw testified the statute says nothing about how this notice is to be provided and does not require any particular information to be included. Although Indiana-American's calculations show the proposed acquisition will not increase its existing customers' rates by an amount greater than 1% of Indiana-American's base annual revenue, Mr. VerDouw testified that Indiana-

American took its cue from the *Georgetown Order* and informed its customers of the Charlestown acquisition via a November bill insert. This notice identified the acquisition, the relief Indiana-American seeks in this Cause, and the purchase price. It also directed customers to a link on Indiana-American's website with additional information and the Commission's online docket where orders and information filed in this Cause can be found. Mr. VerDouw testified that Indiana-American provided its customers with an abundance of notice, and compliance with Section 30.3-5(d)(2) was exceeded.

Mr. VerDouw testified that he disagreed with Mr. Kaufman's testimony that Indiana-American should have provided notice to its customers before petitioning the Commission in this Cause. He reiterated that the statute only requires notice if the 1% threshold is exceeded, which is not the case in this Cause. Mr. VerDouw identified an error in Mr. Kaufman's 1% calculation and explained that when irrelevant information included in Mr. Kaufman's calculation is ignored, this calculation shows Indiana-American is below the 1% threshold. Mr. VerDouw testified that he accepted two of the OUCC's adjustments, and he sponsored Attachment GMV-R2, the revised calculation using these adjustments. According to Mr. VerDouw, making these two changes produces an anticipated increase of 0.832%, which is below the 1% threshold. Mr. VerDouw stated that if the calculation exceeded 1%, the statute requires Indiana-American to provide notice to its customers before it acquires the utility property, not before filing the petition. Thus, Mr. VerDouw testified Indiana-American was not required to provide notice in this Cause, but did so prior to closing; therefore, the notice requirements have been met.

In responding to the Commission's docket entry question dated November 29, 2017, Indiana-American revised the 1% calculation. This reduced the additional revenue requirement to give effect to the additional interest synchronization deduction corresponding to the debt portion of the capital structure, reducing the future effect of the acquisition on Indiana-American customers. In response to a request from the Presiding Officers during the hearing, Indiana-American also filed Joint Petitioners' Late Filed Exhibit 1 in which Indiana-American's potential investment in system improvements was increased to \$13.2 million consistent with its docket entry response dated December 11, 2017. In each of Indiana-American's revised calculations, the effect of acquiring Charlestown's water system assets upon Indiana-American's overall revenue requirement was less than 1%.

E. Rebuttal of NOW Position. Mr. Prine testified that much of NOW's position in this Cause seems driven by political disputes with Charlestown's administration, and he noted NOW is the only party opposing the sale. Mr. Prine disagreed with the implication in Mr. Isgrigg's testimony that there has been collusion, stating that Indiana-American has not interfered with the appraisers or the local decision-making process upon whether to sell the City's Water System. He reiterated that the acquisition negotiations were conducted in good faith and at arm's length. Mr. Prine also responded to Mr. Isgrigg's concern that IDNR's approval may be needed to transfer certain easements. He stated this issue is not a concern and will be addressed in the due diligence process prior to closing.

Mr. Saegesser also responded to Mr. Isgrigg's testimony. Mr. Saegesser challenged Mr. Isgrigg's lack of specificity and broad brush approach. He provided NOW data request responses evidencing that Mr. Isgrigg last worked on Charlestown water matters in the 1970s (Attachment WAS-2R) and has not designed water treatment, distribution, or storage facilities since January

2007 (Attachment WAS-5R). Mr. Saegesser reviewed his use of hydraulic modeling to develop the recent engineering report for Charlestown's water utility and explained how the use of this model provided an integrated approach to improving system operations, analyzing water quality, and planning water system improvements. He testified that Mr. Isgrigg's recommendations were made without the benefit of a hydraulic model of Charlestown's system. Mr. Saegesser concurred with Mr. Prine that the real estate approval issue Mr. Isgrigg raised is a non-issue in this proceeding, as the parties will separately address consent requirements prior to closing.

Mr. Hoffman responded to Mr. Isgrigg's testimony regarding Charlestown's water quality. He stated that some of Mr. Isgrigg's statements regarding water quality are perplexing, while other statements are wrong. Mr. Hoffman responded in detail to Mr. Isgrigg's statements that he perceived as incorrect. Mr. Hoffman testified that the approach Mr. Isgrigg suggested in his testimony focusing on hardness will not alleviate Charlestown's brown water problems; however, the steps described in Mr. Hoffman's direct testimony will address such issues.

Mayor Hall testified the public has had the opportunity to request information on the proposed transaction and to provide input at multiple public meetings and City Council meetings. Mayor Hall testified that no member of the public, including NOW members, made a request to review the appraiser contracts or the appraisal. He pointed out that no officer or board member of NOW testified in this proceeding. Mayor Hall also testified that there has been no collusion with respect to the transaction, and the proposed transaction has been negotiated at arm's length.

Ms. Coomer, Charlestown's elected Clerk-Treasurer, responded to Mr. Williams' testimony regarding Charlestown's SBOA audits. Ms. Coomer testified that none of the audit exceptions the 2008-2009 SBOA audit identified, as referenced in Mr. Williams' testimony, related to the water utility. She testified the SBOA has conducted subsequent audits of Charlestown, and no audit exceptions have been identified since the 2008-2009 audit. Ms. Coomer disagreed with Mr. Williams' suggestion that because exceptions were found in the 2008-2009 audit, exceptions should have been found in the 2010 and 2011 audits and will be found in the current audit. She testified this is not supported by the facts, and she has no reason to doubt the SBOA's conclusions or to believe the SBOA's judgment was flawed.

8. Commission Discussion and Findings. Indiana-American and Charlestown seek approval of Indiana-American's prospective acquisition of the Charlestown Water System pursuant to Section 6.1 and Chapter 30.3. More specifically, Indiana-American and Charlestown filed their Petition under Ind. Code § 8-1-30.3-5(d) and assert the proposed transaction satisfies the requirements of Ind. Code § 8-1-30.3-5(c). As such, Joint Petitioners request the Commission approve the transaction under the terms and conditions of the Asset Purchase Agreement, finding the transaction proposed is in the public interest in accordance with Ind. Code § 8-1.5-2-6.1(e)(1). This acquisition is proceeding pursuant to Section 6.1 and Section 30.3-5.

As the Commission explained in the *Georgetown Order*, Section 6.1 applies to a municipality that adopts an ordinance under Ind. Code § 8-1.5-2-5(d) after March 28, 2016, addressing the sale or disposition of nonsurplus utility property. Section 6.1(b) requires a municipality adopting such an ordinance to obtain Commission approval prior to the transaction occurring. Mayor Hall testified that Charlestown adopted an ordinance approving the proposed acquisition of the Charlestown Water System by Indiana-American on July 6, 2017. Thereafter,

Charlestown and Indiana-American entered into the Asset Purchase Agreement on July 31, 2017, and now seek Commission approval. Jt. Petitioners Ex. 11.

This acquisition is proceeding pursuant to Section 6.1 and Section 30.3-5. Section 6.1 states:

(a) This section applies to a municipality that adopts an ordinance under section 5(d) [Ind. Code § 8-1.5-2-5(d)] of this chapter after March 28, 2016.

(b) Before a municipality may proceed to sell or otherwise dispose of all or part of its nonsurplus utility property under an ordinance adopted under section 5(d) of this chapter, the municipality and the prospective purchaser must obtain the approval of the commission under this section.

(c) As part of the sale or disposition of the property, the municipality and the prospective purchaser may include terms and conditions that the municipality and the prospective purchaser consider to be equitable to the existing utility customers of:

- (1) the municipality's municipally owned utility; and
- (2) the prospective purchaser;

as applicable.

(d) The commission shall approve the sale or disposition of the property according to the terms and conditions proposed by the municipality and the prospective purchaser if the commission finds that the sale or disposition according to the terms and conditions proposed is in the public interest. For purposes of this section, the purchase price of the municipality's nonsurplus utility property shall be considered reasonable if it does not exceed the appraised value set forth in the appraisal required under section 5 of this chapter.

(e) The following apply to the commission's determination under subsection (d) as to whether the proposed sale or disposition according to the proposed terms and conditions is in the public interest:

- (1) If:
 - (A) the municipality's municipally owned utility petitions the commission under IC 8-1-30.3-5(d); and
 - (B) the commission approves the municipality's municipally owned utility's petition under IC 8-1-30.3-5(c);

the proposed sale or disposition is considered to be in the public interest.

(2) If subdivision (1) does not apply and subject to subsection (h), the commission shall consider the extent to which the proposed terms and conditions of the proposed sale or disposition would require the existing utility customers of either the prospective purchaser or the municipality's municipally owned utility, as applicable, to pay rates that would subsidize utility service to the other

party's existing customers. If the commission determines that:

(A) the proposed terms and conditions would result in a subsidy described in this subdivision; and

(B) the subsidy would cause the proposed terms and conditions of the proposed sale or disposition not to be in the public interest;

the commission shall calculate the amount of the subsidy that would result and shall set forth in an order under this section such changes to the proposed terms and conditions as the commission considers appropriate to address the subsidy. The prospective purchaser and the municipality shall each have thirty (30) days from the date of the commission's order setting forth the commission's changes to either accept or reject the changes. If either party rejects the commission's changes, the proposed sale or disposition is considered not to be in the public interest.

(3) In reviewing the proposed terms and conditions of the proposed sale or disposition under either subdivision (1) or (2), the commission shall consider the financial, managerial, and technical ability of the prospective purchaser to provide the utility service required after the proposed sale or disposition.

(f) As part of an order approving a sale or disposition of property under this section, the commission shall, without regard to amounts that may be recorded on the books and records of the municipality and without regard to any grants or contributions previously received by the municipality, provide that for ratemaking purposes, the prospective purchaser shall record as the net original cost rate base an amount equal to:

- (1) the full purchase price;
- (2) incidental expenses; and
- (3) other costs of acquisition;

allocated in a reasonable manner among appropriate utility plant in service accounts.

(g) The commission shall issue a final order under this section not later than two hundred ten (210) days after the filing of the parties' case in chief.

(h) In reviewing a proposed sale or disposition under subsection (e), the commission shall determine whether the factors set forth in IC 8-1-30.3-5(c) are satisfied as applied to the proposed sale or disposition of the municipality's nonsurplus municipally owned utility property for purposes of section 5(m) [IC 8-1.5-2-5(m)] of this chapter. If the commission determines that the factors set forth in IC 8-1-30.3-5(c):

- (1) are satisfied as applied to the proposed sale or disposition, section 5(g) through 5(k) of this chapter does not apply

to the municipality's ordinance adopted under section 5(d) of this chapter; or

(2) are not satisfied as applied to the proposed sale or disposition:

(A) section 5(g) through 5(k) of this chapter applies to the municipality's ordinance adopted under section 5(d) of this chapter; and

(B) the question as to whether the sale or disposition should be made must be submitted to the voters of the municipality at a special or general election if at least the number of the registered voters of the municipality set forth in section 5(h) of this chapter sign and present a petition to the legislative body opposing the sale or disposition, in accordance with section 5(g) through 5(k) of this chapter.

However, notwithstanding this subsection, in reviewing a proposed sale or disposition under subsection (e)(2), the commission may not condition its approval of the proposed sale or disposition on whether the factors set forth in IC 8-1-30.3-5(c) are satisfied or on any other factors except those provided for in subsection (e)(2) and (e)(3).

Under Section 6.1, the Commission is required to approve the sale if we find "the sale or disposition according to the terms and conditions proposed is in the public interest." Section 6.1(d). In evaluating whether the proposed transaction is in the public interest, Section 6.1(e) provides two avenues. First, under Section 6.1(e)(1), if a municipally owned utility files a petition under Section 30.3-5(d) and the Commission approves this petition under Section 30.3-5(c), then "the proposed sale or disposition is considered to be in the public interest." Alternatively, if Section 30.3-5 does not apply, Section 6.1(e)(2) requires the Commission to consider the degree to which the terms of the acquisition will require one utility's customers to subsidize service to the other and whether that subsidy will cause the transaction not to be in the public interest. In addition, in reviewing the proposed transaction under either of these alternatives, i.e., Section 6.1(e)(1) or (e)(2), the Commission is required to "consider the financial, managerial, and technical ability of the prospective purchaser to provide the utility service required under the proposed sale." Section 6.1(e)(3).

In this Cause, Joint Petitioners filed their petition under Section 30.3-5(d) seeking Commission approval of the petition under Section 30.3-5(c). The Commission must, therefore, initially consider whether the requirements of Sections 30.3-5(d) and (c) have been satisfied. Chapter 30.3 applies if: (1) a utility company³ is acquiring property from another utility company in a transaction involving a willing buyer and willing seller at a cost differential; and (2) one of the two utility companies is subject to the Commission's regulation. It is not disputed that Indiana-American and Charlestown are both subject to our regulation. There is also no dispute that with respect to the proposed transaction, Charlestown is a willing seller, and Indiana-

³ A utility company for purposes of Chapter 30.3 is defined as a public utility, municipally owned utility, or not-for-profit utility that provides water or wastewater service. Ind. Code § 8-1-30.3-3(1).

American is a willing buyer. The acquisition also includes a cost differential. Accordingly, the Commission finds that Joint Petitioners have satisfied the criteria to seek Commission approval of the proposed transaction under Chapter 30.3; consequently, we must determine whether Sections 30.3-5(d) and (c) have been satisfied.

A. **Ind. Code § 8-1-30.3-5(d) Requirements.** This statutory provision provides the threshold upon what a utility seeking the Commission's approval of an acquisition before the utility property is acquired must preliminarily provide, stating:

(d) A utility company may petition the commission in an independent proceeding to approve a petition under subsection (c) [Section 30.3-5(c)] before the utility company acquires the utility property if the utility company provides:

(1) notice of the proposed acquisition and any changes in rates or charges to customers of the distressed utility;

(2) notice to customers of the utility company if the proposed acquisition will increase the utility company's rates by an amount that is greater than one percent (1%) of the utility company's base annual revenue;

(3) notice to the office of the utility consumer counselor; and

(4) a plan for reasonable and prudent improvements to provide adequate, efficient, safe, and reasonable service to customers of the distressed utility.

(1) Notice of the proposed acquisition and any changes in rates or charges to customers of the distressed utility. To demonstrate Indiana-American's compliance with Section 30.3-5(d)(1), Mr. Prine sponsored Attachment MP-7. Attachment MP-7 was late-filed and included a letter to Charlestown residents dated June 28, 2017, a letter to Charlestown residents dated August 28, 2017, and a news article about the ramifications of the sale of Charlestown's water utility.

After reviewing the June letter, we find this letter simply afforded Charlestown residents a heads up that Joint Petitioners were exploring a "possible sale" of Charlestown's water system. It did not notify them of the proposed acquisition or any associated changes in rates. The news article was just that—a news report, but also not the required notice to Charlestown's customers of the proposed acquisition. Only the August letter afforded notice of the actual acquisition proposed and a statement that after closing Charlestown resident will be charged Indiana-American's Area One rates. The letter includes the Area One rates that Charlestown's customers using 4,000 gallons of water per month will be charged. The rate for customers using other volumes is not stated. Charlestown's customers are advised in the August letter that Indiana-American will "provide lower rates long term" than Charlestown's rates, a statement upon which the evidence in this Cause is conflicting. The letter includes a web link to additional information about Indiana-American, including its rates and tariffs, and to the Commission's online resources. Referencing online resources may certainly be helpful for customers, but we

caution against reliance upon an Internet resource reference to satisfy Section 30.3-5(d)(1). The notice itself must be complete.

While not as robust as the Commission would expect, especially with respect to the rate changes, the August letter notified Charlestown's customers of the proposed acquisition and contained a statement upon what rates Charlestown customers will be charged after the closing and the amount a residential customer using 4,000 gallons will be billed; consequently, the Commission finds Section 30.3-5(d)(1) was satisfied.

NOW and the OUCC also raised concerns about whether the notice to Charlestown's water customers should have been given before the petition was filed. Doing so would assure notice is given early to not impact due process. In this instance, based upon the postage statement included in Attachment MP-7, the notice was mailed on August 31, 2017, two weeks after Joint Petitioners filed their petition on August 17, 2017, and their case-in-chief. Joint Petitioners demonstrated this letter was mailed to every customer on Charlestown's current customer list. Joint Petitioners' Ex. 7. In establishing the 210 day procedural schedule applicable in this Cause under Section 30.3-5(e), Joint Petitioners agreed the 210 days commenced on September 1 when the notice was late-filed, thereby mitigating any potential impact upon the statutory timeline by not including the notice in Joint Petitioners' case-in-chief filing. Given the agreements reached upon when the 210 day schedule commenced in this Cause, the Commission finds the notice afforded Charlestown's water customers an opportunity to participate if they chose to do so and that late filing this notice was not shown to adversely impact the parties or these customers.

(2) Notice to customers of the utility company if the proposed acquisition will increase the utility company's rates by an amount that is greater than one percent of the utility company's base annual revenue. As the Commission stated in *Georgetown*, the purpose of the inquiry Section 30.3-5(d)(2) requires is to determine whether the utility should notify its customers that a proposed acquisition will in the future affect the rates they pay. "[I]nforming customers of an acquisition that impacts their rates at the time of the acquisition affords customers the intended due process to contest the acquisition." *Georgetown Order* at 12. Under the statute, what triggers the requirement to notify Indiana-American's customers is the potential rate impact upon them, not simply the proposed acquisition; consequently, the Commission finds that if notice is required under Section 30.3-5(d)(2), that notice must apprise the utility company's customers, in this case Indiana-American's customers, that the proposed acquisition is expected to have a rate impact upon them by increasing their rates in the future more than 1%. It must notify them there is a projected rate impact. Also, notice must be timely given to not prejudice the rights of those entitled to notice to make an informed decision upon whether to participate in the acquisition proceeding.

As discussed below, the evidence is conflicting upon the rate impact of the proposed acquisition and, therefore, whether the notice requirement in Section 30.3-5(d)(2) was triggered. This is important because the notice Indiana-American provided its customers was given months after Joint Petitioners' case-in-chief was filed and did not notify Indiana-American's ratepayers that the proposed acquisition is projected to have an impact on their rates. There was also no mention of the projected increased rates or percentage. If the Charlestown Water System acquisition is expected to increase Indiana-American's rates by more than 1%, the Commission

finds the notice Indiana-American gave was deficient because customers were simply advised that Indiana-American's family of customers is growing. They were not notified that this growth comes with a projected impact upon their rates. Section 30.3-5(d)(2) requires notice because of the rate impact, not simply because an acquisition is proposed; therefore, the Commission finds that statutory compliance requires the utility company's customers to be notified that the acquisition is expected to increase their rates, if that increase is going to exceed 1%, so these customers have an opportunity to make an informed decision upon what, if any, action to take. What Indiana-American touted as its notice, Attachment GMV-3, wrongfully omitted rate impact information.

With the notice Section 30.3-5(d)(2) requires not having been given, the decisive issue becomes whether the notice requirement in Section 30.3-5(d)(2) was triggered. The Commission recognized in *Georgetown* that there are multiple methodologies that may be employed to estimate the impact to Indiana-American's rates as a result of an acquisition. *Georgetown Order* at 13. Indeed, the record in this proceeding provides several, albeit conflicting, calculations developed through different methodologies. The calculations the OUCC presented all project a greater than 1% increase in Indiana-American's rates associated with the proposed acquisition. Joint Petitioners, however, presented calculations which show an anticipated increase of less than 1%, Attachment GMV-R2 and Joint Petitioners' Ex. Late Filed 1, so our review begins with the acceptability of the Joint Petitioners' calculations since, if acceptable, notice was not required under Section 30.3-5(d)(2).

On rebuttal, Mr. VerDouw provided a revised rate impact calculation as Attachment GMV-R2 which took into account the adjustments the OUCC recommended. With the OUCC's adjustments, Attachment GMV-R2 shows an anticipated increase of 0.832%, but this calculation erroneously omitted the effect of an interest expense deduction for income tax purposes, otherwise known as interest synchronization. At the request of the Presiding Officers, Indiana-American late-filed an updated calculation correcting this omission and reflecting an increase in the potential rate base and return effect of Indiana-American's updated projected investment in system improvements. Earlier calculations included a capital investment of \$7.2 million based upon Section 6.1 of the Asset Purchase Agreement, Joint Petitioners' Ex. 11, but in delineating Indiana-American's plan for improvements in Joint Petitioners' Ex. 8, Indiana-American projected a \$13.2 million investment. With the updated investment level of \$13.2 million, Indiana-American's calculation shows a projected increase of 0.745%. Joint Petitioners' Ex. Late Filed 1.

After reviewing Indiana-American's updated calculation, the methodology used is accepted except the interest synchronization amount (\$457,220), while shown, was erroneously omitted from the total additional revenue requirement amount (\$1,545,641). While the revenue conversion factor should not be applied to the interest synchronization amount, the interest should not be excluded from the revenue requirement. When added to that total, the estimated increase is 0.965%, barely below the 1% threshold. Although we believe the total estimated property tax expense would have increased commensurate with Indiana-American's capital investment amount increasing from \$7.2 million to \$13.2 million, Indiana-American and the OUCC made no such adjustment in their calculations, so the record does not support the Commission doing so; therefore, the Commission finds the projected rate impact does not exceed the 1% threshold which triggers notice under Ind. Code § 8-1-10.3-5(d)(2).

The Commission reiterates that there are multiple methodologies that may be employed to estimate the potential impact to rates as a result of a proposed acquisition. The methodology reviewed above is an alternative which, to be acceptable, requires the adjustment discussed, i.e., inclusion of the interest synchronization amount in the total additional revenue requirement. In this Cause, Indiana-American came precariously close to noncompliance with Section 30.3-5(d)(2).⁴

(3) Notice to the Office of the Utility Consumer Counselor. On cross-examination, the OUCC asserted that Joint Petitioners should have provided notice of the proposed acquisition to the OUCC before filing their petition and case-in-chief. In response, Mr. VerDouw stated that Section 30.3-5(d) includes no specifics regarding when and in what manner notice to the OUCC must be provided.

In construing a statute, “it is just as important to recognize what a statute does not say as it is to recognize what it does say.” *U.S. Steel Corp. v. Northern Indiana Pub. Serv. Co.*, 951 N.E.2d 542, 559 (Ind. Ct. App. 2011)(citing *Peele v. Gillespie*, 658 N.E.2d 954, 958 (Ind. Ct. App. 1995)). Although the OUCC may prefer to receive notice earlier, we decline the OUCC’s request to read additional notice requirements into Section 30.3-5(d)(3) that are not included. *Id.* at 559 (declining Steel Producers’ request to read into Ind. Code § 8-1-2-87.5(b) the additional requirement that an entity engaging in gas distribution must do so as part of a bypass arrangement). We find notice was provided to the OUCC through service of the petition and the Joint Petitioners’ case-in-chief.

(4) A plan for reasonable and prudent improvements to provide adequate, efficient, safe, and reasonable service to customers of the distressed utility. OUCC witness Seals testified that Section 30.3-5(d)(4), pursuant to which Joint Petitioners requested approval of the acquisition, requires a purchasing utility to provide a “plan for reasonable and prudent improvements to provide adequate, efficient, safe, and reasonable service to customers of the distressed utility.” The OUCC and NOW contend that Indiana-American failed to present the required plan and, instead, presented a plan to make a plan. Mr. Seals testified that instead of presenting the required plan, Mr. Hoffman spoke in terms of possible solutions, likely improvements from Mr. Saegesser’s Preliminary Engineering Report, and further evaluations. Mr. Seals listed the possible solutions Mr. Hoffman mentioned which included: (a) addressing the distribution system, (b) thoroughly testing, evaluating, and understanding the raw water concentrations of manganese, (c) locating another source of supply farther away from the existing location, (d) treatment of the existing well supply by removal of manganese through oxidation and filtration or adsorption and filter backwashing, and (e) unidirectional flushing. Mr. Seals stated that none of the foregoing possible solutions was developed; therefore, what Indiana-American presented is a plan to form a plan. He testified that Mr. Hoffman’s testimony provided little in the way of a tangible “plan for reasonable and prudent improvements.” From Mr. Seals’ perspective, Indiana-American’s plan to identify improvement needs with a more

⁴ NOW and the OUCC also contended that Indiana-American should have provided its customers with notice before the petition was filed and that the notice to Indiana-American’s customers was too late to be meaningful. Because of our finding that the 1% threshold was not reached, the Commission does not address the merits of these arguments.

thorough evaluation of the system after its acquisition is not a plan for reasonable and prudent improvements.

Mr. Seals testified that a plan would identify the projects, state which components of the water system will be affected, identify when the projects will commence, estimate what the specific projects will cost, and explain how the projects will address system problems. The OUCC and NOW assert that without specific projects and costs, the reasonableness and prudence of the improvements to be carried out under the plan cannot be determined.

Mr. Hoffman disagreed that Indiana-American had not provided a plan as required by Section 30.3-5(d)(4). He noted that Indiana-American is seeking approval to acquire a distressed utility and asserted that until Indiana-American owns the Charlestown system, it cannot and should not perform the evaluations that are necessary to develop specific projects. Mr. Hoffman asserted it would be a waste of resources to identify, engineer, and design the detailed project list Mr. Seals described before owning the system and gathering the information that operating the system will provide. Mr. Hoffman testified that the statute does not require a detailed project list. Instead, it refers to “improvements” which is not a defined term in the statute but is commonly defined as an act or process of being improved. Mr. Hoffman testified that what he described is a plan for improvements.

On rebuttal, Indiana-American clarified that notwithstanding that plan approval was requested in their petition, Joint Petitioners are no longer asking for Commission approval of the plan; that request was withdrawn. In his rebuttal testimony, in describing Indiana-American’s plan, Mr. Prine stated:

In the simplest form, our plan is to run a regulated utility free of partisan political claims of neglect, misappropriation, and malfeasance. We plan to operate a system which reliably and prudently invests in infrastructure necessary for operation and maintenance while protecting the affordability of utility services for present and future generations of Charlestown citizens. In short, our plan is to follow the State’s policy added as a preamble [Ind. Code § 8-1-2-0.5] to utility regulation during the 2016 Session.

Joint Petitioners’ Ex. 6-R at 10.

Notwithstanding Indiana-American’s assertion that what Mr. Prine describes is, indeed, a plan for improvements, the Commission disagrees. We find that what Mr. Prine describes are laudable objectives, to be encouraged, but not the required plan for improvements. Under Section 30.3-5(d)(4), the purchasing utility is to provide a plan—in other words, demonstrate that it has a plan as opposed to how it plans to perform. We concur with the OUCC that there is a difference between having the ability to find a solution to a problem and having a plan to solve the problem.

On rebuttal, Mr. Hoffman elaborated upon Indiana-American’s plan, testifying that Indiana-American will first address distribution system and chlorine issues to improve chlorine residual issues and reduce water age, because these are public health concerns. Joint Petitioners’

Ex. 6-R, at 5. Next, Indiana-American will investigate source water through test drilling, pumping, and sampling of existing wells. *Id.* at 6. Then, Indiana-American will thoroughly test, evaluate, and understand the raw water concentrations of manganese. *Id.* Depending on the results of these actions, next steps may include locating another source of supply, construction of treatment facilities, and/or vigorous unidirectional flushing. In response to docket entry questions, Indiana-American supplied cost estimates for each step of this plan, totaling \$13.2 million over five years. Joint Petitioners' Ex. 8 at 3. Not all of these costs may be incurred, as some of the items listed may obviate the need for other improvements, but we find the improvements and capital investments identified evidence a plan for reasonable and prudent improvements under Section 30.3-5(d)(4). Indiana-American's ability to improve the quality of service to Charlestown customers through these steps was not disputed.

We find that Indiana-American presented a plan for reasonable and prudent improvements to provide adequate, efficient, safe, and reasonable service to customers of the distressed utility. In doing so, we are not approving the improvements identified for rate recovery. Having withdrawn the request for plan approval, Indiana-American will be required to demonstrate the prudence of the plan improvements implemented before rate recovery associated with the costs of these improvements will be approved.

B. Ind. Code § 8-1-30.3-5(c) Requirements. Having determined that Joint Petitioners have satisfied the requirements for filing a petition under Section 30.3-5(d), we now address the factors identified in Section 30.3-5(c) on which the Commission is required to make findings to approve the petition as follows:

(1) The utility property is used and useful in providing water service, wastewater service, or both water and wastewater service. Mr. Prine described the Charlestown Water System and provided a map depicting the area currently served. He testified that Charlestown's service area includes residential, commercial, and industrial customers and is near Indiana-American's existing Southern Indiana Operations. He noted that Charlestown also supplies water on a wholesale basis to the Sellersburg and Marysville water utilities. Based on the evidence, we find the Charlestown Water System is used and useful in providing water service.

We note that NOW, in its Amended Complaint, represented that Charlestown does not own the well field that is the subject of the Well Field Lease Agreement between Indiana-American and Charlestown. Those wells are, however, excluded from the proposed acquisition under review and, therefore, not included in the utility property we find used and useful. NOW also contends that because Indiana-American may replace Charlestown's meters, the meters are not used and useful. There was no evidence showing, however, that these meters are not used and useful in providing water service for purposes of appraising Charlestown's system.

(2) The distressed utility failed to furnish or maintain adequate, efficient, safe, and reasonable service and facilities. What constitutes inadequate, inefficient, unsafe, or unreasonable service and facilities is defined by the circumstances enumerated in Ind. Code § 8-1-30.3-6, any one of which satisfies this element. Mr. Prine testified that Charlestown is a municipally owned system that serves fewer than 5,000 customers and, therefore, qualifies as a

distressed utility under Ind. Code § 8-1-30.3-6(5). Mr. Prine explained that while it is not necessary to satisfy a second condition, the Charlestown Water System also satisfies Ind. Code § 8-1-30.3-6(4) because Charlestown has experienced water quality issues, including brown water problems, for many years, and been unable to adequately remediate these issues.

Mr. Hoffman also testified regarding Charlestown's water quality issues. He stated that Charlestown's chlorine residual, at times, has fallen below levels required by IDEM and that not maintaining the required chlorine residual level poses a risk to public health. Mayor Hall testified that a remediation program has been implemented and improvements made to the system during his administration, but he acknowledged significant work remains to resolve brown water and water quality issues. Manganese has been a recurring complaint. Mayor Hall and Mr. Saegesser identified improvements that are needed to remedy Charlestown's water quality problems, and testified that making these improvements (with the costs spread over Charlestown's small customer base) would cause Charlestown's water rates to be higher than Indiana-American's current rates.

The Commission finds that the evidence demonstrates that as a municipally owned system with fewer than 5,000 customers, the Charlestown Water System is a distressed utility and that it has failed to maintain adequate, efficient, safe, and reasonable service and facilities.

(3) The utility company will make reasonable and prudent improvements to ensure that customers of the distressed utility will receive adequate, efficient, safe, and reasonable service. As discussed above, Indiana-American, primarily through the testimony of Mr. Hoffman and the utility's responses to docket entry inquiries, described its plan for improvements to the Charlestown Water System and its operations. Based on that discussion, the Commission found that Indiana-American has a plan for reasonable and prudent improvements to ensure that Charlestown Water System customers will receive adequate, efficient, safe, and reasonable services. Indiana-American also demonstrated that it has the financial, managerial, and technical ability to provide such utility services following closing.

Mr. Hoffman, on cross-examination, described the myriad of problems facing the Charlestown Water System, and he committed that Indiana-American will address these problems so that Charlestown customers receive the same quality water service experienced throughout Indiana-American's operations. He stated that Indiana-American will begin in the distribution system by addressing water age and the chlorine residual issue. NOW's witness Isgrigg testified that Indiana-American "clearly has the technical know-how to fix the water quality." NOW Ex. 1, at 6, line 25. We find that Indiana-American will make reasonable and prudent improvements to ensure Charlestown's water customers will receive adequate, efficient, safe, and reasonable service.

(4) The acquisition of the utility property is the result of a mutual agreement made at arm's length. Mayor Hall described the process Charlestown undertook prior to entering into the transaction and testified that negotiations occurred over several months while Charlestown undertook the statutory process. He stated the negotiations were conducted at arm's length. Mr. Prine and Mr. VerDouw echoed Mayor Hall's testimony and also testified that the negotiations leading up to executing the Asset Purchase Agreement were conducted at arm's

length. Although NOW witness Isgrigg implied there was “collusion” in this transaction, NOW presented no evidence substantiating this claim, and no other witness disputed that the Asset Purchase Agreement was the result of an arm’s length transaction. We, therefore, find the proposed acquisition is the result of a mutual agreement made at arm’s length.

(5) The actual purchase price of the utility property is reasonable. Ind. Code § 8-1.5-2-6.1 provides that the purchase price shall be considered reasonable if it does not exceed the appraised value set forth in the appraisal required by Ind. Code § 8-1.5-2-5. The evidence presented demonstrates the purchase price is equal to the appraisal performed by the statutorily appointed appraisers.

Mayor Hall sponsored the appraisal. He maintained that Charlestown followed the statutory process necessary to sell its water assets, including appointing three disinterested qualified appraisers. Mayor Hall testified the appraisal was initially provided to Charlestown in November 2016, but the City was not ready to make a decision on the sale within the timeframe the statute (Ind. Code § 8-1.5-2-5(d)) requires. As a result, Mayor Hall testified that Charlestown continued its consideration of potentially selling the water utility and later asked the appraisers to review their original appraisal, which he testified they recertified and returned to Charlestown as of April 1, 2017. Mayor Hall sponsored a copy of the original appraisal as Attachment GRH-2 (Valuation Report) and a copy of the recertified appraisal as Attachment GRH-3.

Mayor Hall testified that the City Council timely set a public hearing on the final appraisal for May 11, 2017, and on April 11, 2017, provided notice of this hearing. Mayor Hall stated that the City Council introduced the ordinance approving the proposed acquisition on July 3, 2017, and on July 6, 2017, adopted that ordinance, Ordinance No. 2017-OR-11, An Ordinance Approving an Asset Purchase Agreement and Well Field Lease Agreement and Granting Authority to Mayor to Execute Documents (the “Ordinance”). The Ordinance and the City Council’s related meeting minutes were sponsored by Ms. Coomer, Charlestown’s Clerk-Treasurer, as Attachments DSC-8 and DSC-6 respectively.

Mr. Prine testified that Indiana-American proposes to acquire all of the property that is subject to the City’s appraisal (Attachment GRH-2), apart from the well field and related equipment and assets, at a purchase price of \$13,403,711. He testified the purchase price was determined based upon the appraised value of the Charlestown Water System as determined by the three appraisers. The OUCC through witnesses Parks, Kaufman, and Seals dedicated considerable time and effort to analyzing the appraisal. They identified particular assets or asset categories for which they assert the appraisers made mistakes or applied erroneous assumptions and concluded a lower appraised value was appropriate. On rebuttal, Mr. VerDouw quantified the monetary impact of the OUCC’s criticisms and testified the total effect would reduce the appraised value (\$13,403,711) by \$1,966,500. On cross-examination, Mr. VerDouw acknowledged an additional \$620,000 overstatement the OUCC’s witness Kaufman testified upon in the value of Charlestown’s assets because the appraisal did not capture two years of depreciation, yielding a total overstatement of approximately \$2.6 million.

The Commission recognizes that potentially overstating a \$13.4 million appraisal by \$2.6 million is a significant amount, but under the statutory framework pursuant to which the Joint

Petition was filed, if the purchase price does not exceed the appraised value determined under Ind. Code § 8-1.5-2-5, the Legislature has directed that it “shall be considered reasonable.” Ind. Code § 8-1.5-2-6.1 (d) states:

(d) The commission shall approve the sale or disposition of the property according to the terms and conditions proposed by the municipality and the prospective purchaser if the commission finds that the sale or disposition according to the terms and conditions proposed is in the public interest. For purposes of this section, the purchase price of the municipality’s nonsurplus utility property **shall be considered reasonable if it does not exceed the appraised value set forth in the appraisal required under section 5 [IC 8-1.5-2-5] of this chapter.** (emphasis added)

As a statutory creation, the Commission can exercise only the power conferred upon it by statute, and any doubt upon the Commission’s statutory authority is required to be resolved against the existence of such authority. *United Rural Elec. Membership Corp. v. Ind. & Mich. Elec. Co.*, 549 N.E.2d 1019, 1021 (Ind. 1990). We also note that the first step in interpreting a statute is to determine whether the Legislature spoke clearly and unambiguously. If so, any rules of construction other than to require that the words and phrases be taken in their plain, ordinary, and usual sense are not to be applied. *See City of Carmel v. Steele*, 865 N.E.2d 612, 618 (Ind. 2007).

We find no ambiguity in Ind. Code § 8-1.5-2-6.1(d) that authorizes the Commission to determine the appropriateness of the OUCC’s proposed adjustments in the purchase price.⁵ The proposed purchase price does not exceed the valuation the appraisers determined. The appraisers were shown to be qualified under Ind. Code § 8-1.5-2-5; consequently, the purchase price is deemed “reasonable.” The Commission, therefore, finds the actual purchase price for purposes of Section 30.3-5(c)(5) is reasonable.

In making the foregoing finding we note that NOW challenged whether recertification of the appraisal is permitted and also contended Charlestown failed to comply with Ind. Code § 8-1.5-2-4 because a single appraisal document was not available for inspection and copying. The Return of Appraisal (Attachment GRH-3) returned on April 1, 2017, is signed by all three appraisers. In this document each appraiser affirmed that “the just and true valuation of the Charlestown Water Utility ... is \$13,449,711.” While a recertification process is not expressly identified in Ind. Code § 8-1.5-2-5, in light of all three appraisers affirming to the true and just valuation stated in the Return of Appraisal, we find the appraisal presented to the City Council on April 1, 2017, was not shown to be defective. It is noted that the evidence showed the timeline for notice and the public hearings the City Council conducted after receiving the Return of Appraisal complied with Ind. Code § 8-1.5-2-5; therefore, the public’s opportunity to comment and be heard by the City Council was not shown to be impacted by the appraisal being

⁵ To the extent our discussion in the *Georgetown Order* at 15 under item (e) was interpreted in this Cause as opening the door to dispute the propriety of asset values within the appraisal, that interpretation is incorrect. If the purchase price exceeds the appraised value, its reasonableness may be challenged. If the appraisers did not possess the requisite qualifications, did not come to agreement on the appraised value, or the appraisal process was not conducted consistent with applicable statutes, that non-adherence with the statute may be challenged. But the Commission is not authorized to, essentially, second guess the appraisers’ work.

provided twice. The challenges NOW raises about the availability of the appraisal document will be addressed below in resolving NOW's pending summary judgment motion.

(6) The utility company and the distressed utility are not affiliated and share no ownership interests. Mr. Prine's testimony that Charlestown and Indiana-American are not affiliated and share no ownership interests was not controverted. We, therefore, find this requirement is satisfied.

(7) The rates charged by the utility company before acquiring the utility property of the distressed utility will not increase unreasonably as a result of acquiring the utility property. Mr. VerDouw testified that Charlestown will be operated as part of Indiana-American's Southern Indiana Operations, and its former water customers will, therefore, be subject to Indiana-American's Area One rates. While Charlestown's water customers will experience a rate increase, with the monthly bill for a residential customer using 5,000 gallons changing from \$18.30 to \$44.17 for customers with fire protection, Mr. VerDouw testified Indiana-American's rates will remain unchanged following this proceeding as a result of this acquisition. He explained that in future rate proceedings, given the small size of the Charlestown Water System, the rates Indiana-American charges are not expected to increase unreasonably as a result of acquiring the Charlestown Water System. Accordingly, we find the rates charged by Indiana-American will not increase unreasonably as a result of this acquisition.

(8) The cost differential will be added to the utility company's rate base to be amortized as an addition to expense over a reasonable time with corresponding reductions in the rate base. Mr. VerDouw testified that the purchase price for the acquisition includes a cost differential as that term is defined in Chapter 30.3. For purposes of this acquisition, he testified that Indiana-American is proposing to reflect a total original cost rate base of \$13,583,711 which Indiana-American intends to book as shown in the journal entry he sponsored by reflecting the asset values by asset category, as recommended in the appraisal, with the estimated transaction costs spread over the asset values on a pro-rated basis.

Mr. VerDouw testified that the proposed journal entry allocates the entire purchase price in a reasonable manner among appropriate utility plant in service accounts.⁶ In this fashion, the cost differential will be amortized and charged to expense over a reasonable period of time with corresponding reductions to rate base through depreciation expense calculated pursuant to Indiana-American's approved depreciation accrual rates. We find the modified journal entry is appropriate.

C. Conclusion upon Public Interest. On the basis of the reasons discussed and the findings made above, we find Joint Petitioners satisfied the requirements of Ind. Code § 8-1-30.3-5 (c) and (d) and, therefore, for purposes of Ind. Code § 8-1.5-2-6.1(e)(1), the proposed transaction is in the public interest.

⁶ On rebuttal, Mr. VerDouw accepted Ms. Stull's recommendation with regard to recording Utility Plant in Service based upon the full purchase price, with no entry for depreciation reserve. The modified journal entry is Attachment GMV-R1.

D. Ind. Code § 8-1.5-2-6.1(e)(3). In reviewing the terms and conditions of the proposed sale as agreed upon in the Asset Purchase Agreement, we are required to consider the financial, managerial, and technical ability of Indiana-American to provide the required water utility service. Ind. Code § 8-1.5-2-6.1(e)(3). Mr. Prine testified that Indiana-American currently provides residential, commercial, industrial, and municipal water service, including sale for resale and public and private fire protection service, to approximately 300,000 customers. He stated that Indiana-American's Southern Indiana Operations will perform the day-to-day operations, and Charlestown customers will receive full-time management of their water system, including a full-time operations staff, 24/7 customer service and emergency response, enhanced security measures, and full-time engineering and water quality specialists. Indiana-American will also institute reasonable and prudent asset management by adding the Charlestown Water System to Indiana-American's ongoing prioritization model.

Mr. VerDouw testified that Indiana-American has access to all necessary funds to support its purchase of the Charlestown Water System and is capable of financing the proposed asset purchase without significant financial consequences. The OUCC did not contest Indiana-American's financial, managerial, or technical ability to provide the proposed water utility service. Based upon the testimony presented, we find Indiana-American possesses the financial, managerial, and technical ability to provide the required utility service after the sale.

E. Sale Approval and Accounting Treatment. Having determined that Joint Petitioners satisfied the requirements listed in Ind. Code § 8-1-30.3-5(c) and (d) and that the sale proposed under the terms and conditions set forth in the Asset Purchase Agreement satisfies Ind. Code § 8-1.5-2-6.1(e)(3), pursuant to Ind. Code § 8-1.5-2-6.1(d) the proposed sale is approved. Because the statutory requirements for approval have been satisfied, Section 6.1(f) directs the Commission as follows:

As part of an order approving a sale or disposition of property under this section, the commission shall, without regard to amounts that may be recorded on the books and records of the municipality and without regard to any grants or contributions previously received by the municipality, provide that for ratemaking purposes, the prospective purchaser shall record as the net original cost rate base an amount equal to:

- (1) the full purchase price;
- (2) incidental expenses; and
- (3) other costs of acquisition;

allocated in a reasonable manner among appropriate utility plant in service accounts.

As directed by the statute, we find that without regard to the amounts recorded on Charlestown's books and records and without regard to any grants or contributions Charlestown may have received, Indiana-American may record for ratemaking purposes as the net original cost rate base of the assets being acquired an amount equal to the full purchase price, plus incidental expenses and other costs of acquisition, allocated among utility plant in service accounts in the fashion Mr. VerDouw recommended. We further find that the incidental expenses should include \$25,500 for the costs Indiana-American paid for Charlestown's appraisal since this incidental expense was incurred to facilitate the transaction and was not

shown to be unreasonable. *See Georgetown Order* at 18. Consistent with our discussion in *Georgetown*, we also find that total incidental expenses and other costs of the acquisition should be limited to such actual expenses and costs as are reasonably incurred.

We further find that Indiana-American's proposed accounting and journal entries as described in Mr. VerDouw's rebuttal testimony and Attachment GMV-R1, should be approved, and the costs so reflected on the books and records of Indiana-American should be used as the original cost of such properties for accounting, depreciation, and rate base valuation purposes. The journal entry should be adjusted to reflect actual (rather than estimated) incidental expenses and other costs of acquisition. *See Georgetown Order* at 19. We find that Indiana-American's existing depreciation accrual rates approved by the Commission in Cause No. 43081 on November 21, 2006, should be applied on and after the closing date of the acquisition to depreciable property purchased from Charlestown pursuant to the Asset Purchase Agreement, and as the same may be adjusted in the pending Indiana-American depreciation case, Cause No. 44992.

F. Rates and Rules. Indiana-American currently has on file with the Commission a schedule of rates and charges and rules and regulations applicable to water utility service Indiana-American provides in its Area One rate group. We find that, on and after the closing, Indiana-American's generally applicable rates and charges and rules and regulations for water service and private and public fire service applicable in Indiana-American's Area One rate group on file with and approved by the Commission should apply to services Indiana-American provides through the Charlestown Water System, as the same are in effect from time to time.

G. Encumbrances. We find that the encumbering of the properties comprising the Charlestown Water System by subjecting such properties to the lien of Indiana-American's general mortgage as of the closing should be approved.

H. Proposed Sewer Credit. Mayor Hall testified that Charlestown intends to set up a fund from the sale proceeds from which to phase-in the impact of the increase in water rates by providing Charlestown sewer customers with a credit on sewer utility bills for four years. He testified the monthly credit will be \$20 the first year after the acquisition, \$15 the second year, \$10 the third year, and \$5 the fourth year. This will afford Charlestown sewer customers who are also Charlestown water customers a lower aggregate water and sewer bill. He quantified the total cost of the sewer credit package to be approximately \$1,740,000. Mayor Hall testified that Charlestown will also use the sale proceeds to pay off debt of approximately \$1,125,000 on its outstanding water utility revenue bonds, with the remaining proceeds to be held by Charlestown as a strategic reserve.

The power of this Commission is derived solely from statute, and without statutory grant of power, there is none. *Citizens Action Coal. of Ind., Inc. v. N. Ind. Pub. Serv. Co.*, 485 N.E.2d 610, 612 (Ind. 1985). How a municipality uses the proceeds from the sale of a municipally owned utility is not within the Commission's jurisdiction. Accordingly, our approval of the proposed acquisition is not contingent upon the sale proceeds being used consistent with Mayor Hall's testimony, although mitigating the impact of a 141% increase in water rates via a credit over four years, as described, helps support its reasonableness.

9. **Commission Discussion and Findings on NOW Amended Complaint.** In its Amended Complaint, NOW requests the Commission open an investigation into the acquisition of the Charlestown Water System by Indiana-American, issue an order temporarily barring the acquisition of the Charlestown Water System by Indiana-American, and enter such other orders as are supported by the evidence and the Commission finds to be in the public interest. In support of its Amended Complaint, NOW makes three allegations: misuse by Charlestown of utility funds, inability of Charlestown to convey real property rights per the Asset Purchase Agreement, and an alternative water source makes assets of Charlestown's water utility not used and useful utility property in contravention of Section 30.3-5(c). We address these allegations below.

A. **Use of Utility Funds.** NOW's amended allegations pertaining to Charlestown's misuse of utility funds fall into two categories: misuse of water utility funds and future misuse of the sale proceeds. Each of these allegations is addressed below.

(1) **Misuse of Water Utility Funds.** NOW alleged that \$1.86 million in "bonds were issued as part of a comprehensive plan to upgrade [Charlestown]'s water system, including the installation of a new water treatment plant." Amended Complaint, ¶ 16. Earlier in the Amended Complaint, NOW conveys "concerns about whether these funds were all actually used to make improvements to the Water Utility's distribution system, or whether some of those funds were improperly diverted to non-utility projects." Amended Complaint at 2. NOW's case-in-chief does not substantiate this allegation. NOW's financial witness, Mr. Williams did not perform a thorough review of Charlestown's water utility records. He provided SBOA audits of Charlestown for 2008 and 2009 that identified accounting issues, but Ms. Coomer testified those issues did not affect Charlestown's water utility. Ms. Coomer also sponsored the most recently completed SBOA audit for Charlestown as Attachment DSC-3. The SBOA is the state agency charged with overseeing financial recordkeeping of municipalities, and its most recent audit did not evidence financial misdealing in Charlestown's water utility. Ms. Coomer also sponsored a report on the use of the 2008 bond proceeds as Attachment DSC-4. Water utility funds were not shown to have been misused.

Based upon the evidence presented, we find that NOW's allegations pertaining to misuse of water utility funds by Charlestown were not substantiated and deny relief to NOW based upon these allegations.

(2) **Prospective Misuse of Sale Proceeds.** NOW's second allegation concerning misuse of utility funds concerns prospective misuse by Charlestown of the sale proceeds from the proposed acquisition. As discussed above in Finding No. 8.H., the Commission does not have jurisdiction over a municipality's use of proceeds from the sale of a municipally owned utility. NOW's allegations in the Amended Complaint pertaining to the prospective misuse of the sale proceeds are outside the scope of our jurisdiction.

B. **Conveyance of Interests in Real Property.** NOW also alleged that Charlestown does not have sufficient ownership interests in certain real property it intends to dispose of pursuant to the Asset Purchase Agreement and Well Field Lease Agreement. Mr. Saegesser and Mr. Isgrigg testified that the IDNR owns certain real property on which Charlestown operates wells and that IDNR's approval is needed to transfer the IDNR-owned property from Charlestown to Indiana-American pursuant to the Well Field Lease Agreement.

The Commission does not have jurisdiction to decide real property questions. See *Indiana Farm Gas Prod. Co. v. S. Indiana Gas & Elec. Co.*, 662 N.E.2d 977, 980 (Ind. Ct. App. 1996) (“*Indiana Farm Gas IIP*”) (discussing prior proceeding where the Commission found it lacked jurisdiction to determine whether the gas was owned by Indiana Farm Gas Production Company or Southern Indiana Gas and Electric Company because this is a question of property law, which is outside the scope of delegated authority and expertise of the Commission).⁷ It is well-settled that “[t]he commission can only exercise power conferred upon it by statute.” *United Rural Elec. Membership Corp. v. Indiana & Michigan Elec. Co.*, 549 N.E.2d 1019, 1021 (Ind. 1990) (citing *General Telephone Co. of Indiana v. Indiana Pub. Serv. Comm’n*, 150 N.E.2d 891, 894 (Ind. 1958)). Under Indiana law, the Commission is not delegated authority to resolve real property matters.

While we are not determining real property interests in this Cause, we note that Joint Petitioners addressed the issue of third party approvals for real property disposition by including a provision in the Well Field Lease Agreement, Section 18, which recognizes the Well Field Lease Agreement is subject to approval of any necessary parties. Obtaining necessary consents is a specific condition to closing. Joint Petitioners’ Ex. 6-R at 5-6 and Attachments MP-3 and MP-5. The IDNR’s consent, to the extent it is required, remains a condition to closing unaffected by this Order. We find there is no relief within our jurisdiction to grant upon NOW’s allegations pertaining to Charlestown’s conveyance of an interest in real property that Charlestown does not own.

C. Alternative Water Source/”Used and Useful” Property. NOW’s Amended Complaint alleges that a 3 mgd alternative water source is readily available from the IDNR and the availability of this water source renders certain of Charlestown’s water utility assets and potential improvements to not be “used and useful” in providing water service. In support of this allegation NOW provided Mr. Isgrigg’s testimony.

The record reflects that Mr. Isgrigg performed engineering services related to the Charlestown Water System in the 1970s. Mr. Isgrigg has not designed water treatment, storage, or distribution facilities since January 1, 2007. He provided recommendations for improving Charlestown’s water quality issues, based on his historical knowledge of this system, stating that

⁷ *Indiana Farm Gas* has a complex history. SIGECO purchased natural gas from an interstate pipeline and stored it in an underground field. Indiana Farm Gas then constructed wells and began pumping the stored gas to the surface and filed a petition with the Commission pursuant to Ind. Code § 8-1-2-87.6 seeking an order requiring SIGECO to transport it as “Indiana-produced natural gas.” The ultimate issue was who owned the gas. SIGECO filed a motion to dismiss, and the Commission applied the rule of capture to conclude Indiana Farm Gas was the rightful owner. On appeal, the Court of Appeals reversed and directed the cause to be dismissed because “[u]ltimately this is a question of property law, which is outside the scope of delegated authority and expertise of the Commission.” *Southern Indiana Gas & Elec. Co. v. Indiana Farm Gas*, 540 N.E.2d 621, 625 (Ind. Ct. App. 1989) (“*Indiana Farm Gas P*”). On rehearing, the Court vacated the portion of its opinion directing dismissal on remand because what had been submitted at that point was prefiled testimony that had not yet been adopted under oath. Instead, the Court directed a hearing to address the question of jurisdiction. *Southern Ind. Gas & Elec. Co. v. Indiana Farm Gas*, 549 N.E.2d 1063, 1064 (Ind. Ct. App. 1990), *trans. denied* (“*Indiana Farm Gas IP*”). On remand, the Commission held a hearing and dismissed the petition because it lacks jurisdiction to decide questions of property law. *Indiana Farm Gas*, Cause No. 38239 (IURC 7/20/1994) at 9. Indiana Farm Gas appealed, and the Court held that its prior determination that the Commission lacked jurisdiction to decide questions of property law was deemed the “law of the case.” *Indiana Farm Gas III*.

if Charlestown bought all its water from the IDNR/River's Edge treatment plant, Charlestown would no longer be relying upon its own well field, and these well field facilities, including the lines from the well field, would be rendered unnecessary. No evidence was introduced, however, demonstrating that this perspective is more than conjecture.

The evidence demonstrated that the IDNR's water source is 2 mgd rather than 3 mgd, as stated by Mr. Isgrigg and in the Amended Complaint. On rebuttal, Mr. Saegesser, who currently provides engineering services for Charlestown and its water utility, testified that while the IDNR might have had 4 mgd of well capacity, it built a 2 mgd treatment plant. He provided the October 2017 monthly operations report for the IDNR treatment plant (Attachment WAS-8R). This demonstrated the IDNR treatment plant has a 2 mgd capacity, and its current maximum day usage is approximately 871,000 gallons. Mr. Saegesser testified that with Charlestown's peak usage at approximately 1.2 mgd and the IDNR's monthly report of operations demonstrating an October demand of over 800,000 gpd, the IDNR does not have sufficient capacity for Charlestown and its projected growth.

Mr. Saegesser further testified on rebuttal that an efficient, reliable, and cost-effective solution with IDNR water is not possible. Mayor Hall testified that Charlestown had negotiated to purchase water from the IDNR for approximately two years but was unable to reach an agreement. While the IDNR may have some capacity available, the parties have been unable to reach agreement for water supply after two years of negotiations. We find relief is not merited upon NOW's allegations of alternative water supply and used and useful property because NOW did not meet its burden of proving the Charlestown utility property at issue is not used and useful in Charlestown's provision of water service.

Accordingly, the Commission finds that, through the consolidation of Cause No. 44964 in which NOW filed its Amended Complaint with Cause No. 44976, the Commission has investigated the acquisition of the Charlestown Water System by Indiana-American and that NOW has had the opportunity to present evidence supporting its allegations through filing its Complaint, its Amended Complaint, a motion to dismiss/motion to strike case-in-chief,⁸ its case-in-chief evidence, and its motion for summary judgment. As discussed in this Order, the Joint Petitioners have satisfied the statutory requirements relating to the proposed transaction, and Indiana-American's acquisition of the Charlestown Water System has been found to be in the public interest. For the foregoing reasons, including our findings above upon the allegations of NOW's Amended Complaint, the Commission finds that NOW has not met its burden of proving the allegations stated in the Amended Complaint, and no relief is, therefore, granted upon NOW's Amended Complaint.

10. NOW's Summary Judgment Motion. NOW filed NOW!, Inc.'s Motion for Summary Judgment and Designation of Evidence in this Cause on November 27, 2017. Charlestown filed a response opposing this motion on December 7, 2017. This motion remained pending as of the evidentiary hearing. In its summary judgment motion, NOW contends that

⁸ NOW!, Inc.'s Motion to Dismiss Joint Petition and/or Motion to Strike Joint Petitioner's Case-in-Chief filed in this Cause on August 29, 2017, was denied by the Presiding Officers in a Docket Entry issued on November 22, 2017. No appeal of that denial ruling was made to the Commission under 170 IAC 1-1.1-25.

Charlestown failed to comply with Ind. Code § 8-1.5-2-4. Ind. Code § 8-1.5-2-4 states as follows:

Whenever the municipal legislative body or the municipal executive determines to sell or otherwise dispose of nonsurplus municipally owned utility property, it shall provide for the following in a written document that shall be made available for inspection and copying at the offices of the municipality's municipally owned utility in accordance with IC 5-14-3.

- (1) The appointment, as follows, of three (3) residents of Indiana to serve as appraisers:
 - (A) One (1) disinterested person who is an engineer licensed under IC 25-31-1.
 - (B) One (1) disinterested appraiser licensed under IC 25-34.1.
 - (C) One disinterested person who is either:
 - (i) an engineer licensed under IC 25-31-1; or
 - (ii) an appraiser licensed under IC 25-34.1.
- (2) The appraisal of the property.
- (3) The time that the appraisal is due.

NOW contends Charlestown failed to satisfy Ind. Code § 8-1.5-2-4 for two reasons: (1) NOW interprets this statute as requiring Charlestown to prepare a single document appointing the three appraisers and (2) requiring the appointment document to be physically present in the office of Charlestown's municipally owned utility. For the reasons discussed below, we agree with NOW that Ind. Code § 8-1.5-2-4 contemplates the information listed being in a single written document, but we conclude Charlestown substantially complied with this statute, and its substantial compliance does not negate the Commission's approval of the proposed acquisition. We further find there are material issues of fact which preclude the Commission from concluding, for purposes of summary judgment, that the referenced documentation was not available for inspection and copying as Ind. Code § 8-1.5-2-4 requires. To the contrary, we find the weight of the evidence demonstrates otherwise.

Charlestown claims that while Ind. Code § 8-1.5-2-4 requires the appraiser appointments to be made in a written document, all three appraisal appointments are not required to be made in the same document. According to Charlestown, to reach NOW's interpretation, "in the same document" or "in a single document" must be read into the statute. Charlestown asserts that principles of statutory construction prohibit the addition of such language to Ind. Code § 8-1.5-2-4. We believe, however, that it is Charlestown who improperly reads language into the statute instead of taking the plain language of the statute, giving its words their ordinary meaning, and considering the structure of the statute as a whole. See *Indiana Alcohol and Tobacco Comm'n v. Spirited Sales, LLC*, 79 N.E.3d 371, 376 (Ind. 2017). In directing that Charlestown shall provide for the appointment of three residents to serve as appraisers "in a written document," we find the statute unambiguously directs the appraiser "appointment"—not each appraiser appointment—to be memorialized in a written document along with the other information listed.

In this instance, agreements to appraise Charlestown's utility property were executed with two engineering firms (Attachment GRH-1R) with an email exchange for the real estate

appraisal assignment (Attachment GRH-2 at 062-063 and 108-109). For purposes of summary judgment, NOW focuses upon the listed information not being in a single document as opposed to claiming the appointments were not made in any document. Certainly, adherence to the statute should be effectuated by making the appointment in a document, such as an ordinance or resolution consistent with the title of this statute, but we find the multi-document process Charlestown used substantially complied by memorializing the appraiser appointments, the work to be performed, i.e., an appraisal of Charlestown's utility property, and the related timeline and that NOW has not shown any adverse impact or prejudice therefrom. Three disinterested persons were appointed to appraise the utility property with two being licensed engineers and one being a licensed appraiser. We find the appraisal documentation substantially complied with the Ind. Code § 8-1.5-2-4 requirements because the objectives of this statute were met. *See, e.g., Hamill v. City of Carmel*, 757 N.E.2d 162, 165 (Ind. Ct. App. 2001). Because of this determination, we do not also address whether NOW waived challenging the appraiser appointments by not raising its challenge sooner than summary judgment or whether summary judgment is the appropriate recourse for a technical misstep at the outset when appointing the appraisers.

While the record is not disputed that the appraisal appointments were not made in a document, we find there are material issues of fact upon whether the appointment documentation was available for inspection and copying as the statute requires. In support of its position, NOW provided copies of public information requests for information from Charlestown, but these did not include a request for a copy of the appraiser appointment. Also, as shown in Exhibit A to NOW's motion for summary judgment, Charlestown claimed in its responses to NOW's Data Request #7, Question 7.1, "The documents appointing the appraisers and related contracts were available for inspection and copying as provided in IC 5-14-3 at all times following their creation and would have been produced upon request at either the Mayor's office, the municipal utility office, or the Clerk-Treasurer's office. Notably, no one ever requested to inspect or copy any such documents." Clearly, the availability of the subject documents for copying or inspection was disputed, precluding summary judgment. Based on what was presented in this Cause, we find that NOW has not shown the documentation was not available in compliance with the statute or actual harm associated with NOW's claim.

Based on the discussion and findings above, we conclude that NOW's Motion for Summary Judgment should be and is denied.

IT IS THEREFORE ORDERED BY THE INDIANA UTILITY REGULATORY COMMISSION that:

1. Joint Petitioners are authorized to consummate the acquisition of the Charlestown Water System by Indiana-American on the terms described in the Asset Purchase Agreement and as discussed herein.
2. The acquisition of the Charlestown Water System by Indiana-American on the terms and conditions described in the Asset Purchase Agreement and in the evidence is in the public interest as defined in Ind. Code § 8-1.5-2-6.1(d) and (e), and the same is approved.
3. Indiana-American is authorized to record for ratemaking purposes as net original cost rate base of the assets being acquired an amount equal to the full purchase price, actual

incidental expenses, and other actual costs of acquisition reasonably incurred, allocated among utility plant in service accounts as Indiana-American proposed.

4. Indiana-American is authorized to charge customers currently served by the Charlestown Water System the current rates and charges and apply the same rules and regulations for water service and private and public fire service applicable in Indiana-American's Area One rate group on file with and approved by the Commission, as the same are in effect from time to time.

5. Indiana-American is authorized to reflect the acquisition of the Charlestown Water System on its books and records as of the closing by making the accounting and journal entries described in Attachment GMV-R1, as adjusted to actual, reasonable incidental expenses and other actual costs of the acquisition.

6. The net original cost, as defined herein, of the acquired property shall be used for accounting, depreciation, and rate base valuation purposes after closing.

7. Indiana-American is authorized to apply its depreciation accrual rates on and after the closing date of the acquisition to depreciable property purchased from Charlestown pursuant to the Asset Purchase Agreement.

8. Indiana-American is authorized to encumber the properties comprising the Charlestown Water System with the lien of Indiana-American's mortgage indenture.

9. The relief sought in NOW's Amended Complaint is denied.

10. NOW's Motion for Summary Judgment is denied.

11. This Order shall be effective on and after the date of its approval.

HUSTON, WEBER, AND ZIEGNER CONCUR; FREEMAN CONCURS WITH SEPARATE OPINION:

APPROVED: MAR 14 2018

I hereby certify that the above is a true and correct copy of the Order as approved.



Mary M. Becerra
Secretary of the Commission

STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

JOINT PETITION OF INDIANA-AMERICAN WATER)
COMPANY, INC. ("INDIANA AMERICAN") AND THE)
CITY OF CHARLESTOWN, INDIANA)
("CHARLESTOWN") FOR APPROVAL AND AUTHORI-)
ZATION OF: (A) THE ACQUISITION BY INDIANA-)
AMERICAN OF CHARLESTOWN'S WATER UTILITY)
PROPERTIES (THE "CHARLESTOWN WATER SYS-)
TEM") IN CLARK COUNTY, INDIANA IN ACCORD-)
ANCE WITH A PURCHASE AGREEMENT THEREFOR;)
(B) APPROVAL OF ACCOUNTING AND RATE BASE)
TREATMENT; (C) APPLICATION OF INDIANA AMERI-)
CAN'S AREA ONE RATES AND CHARGES TO WATER)
SERVICE RENDERED BY INDIANA AMERICAN IN THE)
AREA SERVED BY THE CHARLESTOWN WATER SYS-)
TEM ("THE CHARLESTOWN AREA"); (D) APPLICA-)
TION OF INDIANA AMERICAN'S DEPRECIATION AC-)
CRUAL RATES TO SUCH ACQUIRED PROPERTIES; (E))
THE SUBJECTION OF THE ACQUIRED PROPERTIES)
TO THE LIEN OF INDIANA AMERICAN'S MORTGAGE)
INDENTURE AND THE POTENTIAL ENCUMBRANCE)
FROM RIGHT OF FIRST REFUSAL; AND (F) THE PLAN)
FOR REASONABLE AND PRUDENT IMPROVEMENTS)
TO PROVIDE ADEQUATE, EFFICIENT, SAFE AND REA-)
SONABLE SERVICE TO CUSTOMERS OF THE)
CHARLESTOWN WATER SYSTEM.)

CAUSE NO. 44976

VERIFIED COMPLAINT AND REQUEST FOR COMMIS-)
SION INVESTIGATION BY NOW! INC. AND CUSTOM-)
ERS OF THE CITY OF CHARLESTOWN AGAINST INDI-)
ANA AMERICAN WATER COMPANY REGARDING ITS)
PROPOSED ACQUISITION OF THE CITY OF)
CHARLESTOWN'S WATER UTILITY)

CAUSE NO. 44964

APPROVED:

CONCURRING OPINION OF
COMMISSIONER SARAH E. FREEMAN

I concur in result today because the public interest is best served by Indiana-American providing service to Charlestown's water customers sooner rather than later. The Commission Order supports this result, but I nevertheless wish to address separately three areas of concern, all

relating to Indiana-American's treatment of the notice and plan requirements set forth in IC 8-1-30.3-5(d).¹

First, Indiana-American failed to provide the notice required under section 5(d)(1) in a timely manner as contemplated by the statute. Petitioner mailed a letter² to Charlestown residents on August 31, 2017, two weeks after it initiated this Cause on August 17, 2017. Given that section 5(d)(1) is a condition of seeking Commission approval under section 5(d), this delay would have been fatal to Indiana-American had it not agreed to base the procedural schedule in this Cause from the date on which it late-filed the letter, September 1, 2017.

Second, the notice requirement in section 5(d)(2) was not triggered because the record is devoid of any evidence with respect to the treatment of additional property tax expenses in Indiana-American's revenue requirement as a result of Indiana-American's capital investment amount increasing from \$7.2 million to \$13.2 million. The Commission's long-standing practice of limiting its review to the evidence and arguments presented to it today works in favor of Indiana-American; as it stands, 0.965% is less than 1%.

Third, section 5(d)(4) requires Indiana-American to provide "a plan for reasonable and prudent improvements" to Charlestown's water system, which should have been at the very least a component of Indiana-American's case-in-chief. I find the testimony of Indiana-American reproduced on page 28 of the Commission Order credible and consistent with my observation of Indiana-American's existing business operations. Sentiment alone, however, does not satisfy section 5(d)(4), nor does it by itself justify the recovery of millions of dollars through rates. Rather, it was through rebuttal and cross-examination testimony and responses to docket entry questions that Indiana-American presented enough specifics to support the Commission's finding that section 5(d)(4) is satisfied.

Ultimately, IC 8-1-30.3-5 and IC 8-1.5-2-6.1 afford a petitioner a meaningful opportunity to present the Commission – and the petitioner's present and future customers – with any evidence supporting its position that its acquisition of a distressed utility is in the public interest. This opportunity should not be squandered.

¹ IC 8-1-30.3-5(d) allows Indiana-American to take a certain action (seek Commission approval of Indiana-American's petition under IC 8-1-30.3-5(c)) at a certain time (before Indiana-American acquires Charlestown) if Indiana-American satisfies certain other requirements (the notice and plan requirements enumerated in subdivisions (d)(1) through (d)(4)). The notice and plan requirements are conditions that must be satisfied in order for a petition to be properly filed with the Commission under section 5(d). While IC 8-1-30.3-5(d) does not specify whether these conditions must be satisfied before or concurrently with the filing, a reasonable reading of section 5(d) implies at the very least a concurrent (as opposed to a subsequent) filing. Based on this reading, notice to the OUCC in the form of service of the petition and case-in-chief satisfies IC 8-1-30.3-5(d)(3) and is not addressed in the body of this separate opinion.

² The Commission Order addresses the content inadequacies of this letter on pages 24-25.



**SJW GROUP AND CONNECTICUT WATER SERVICE, INC. TO COMBINE IN
ALL-STOCK TRANSACTION TO CREATE LEADING WATER UTILITY COMPANY**

*Combined Company to be 3rd Largest Investor-Owned Water and Wastewater Utility in the United States;
Multi-State Presence with Corporate Headquarters in San Jose, CA and
New England Headquarters in Clinton, CT*

*New Company Positioned to Drive Growth, Serve Customers and
Create Opportunities for Employees as a Result of Increased Scale and Geographic Diversity,
Combined Operating Expertise and Enhanced Financial Strength*

*Transaction Expected to Provide Dividend Growth and Greater Earnings;
Expected to be Accretive to Both Companies' EPS in First Fiscal Year Post-Closing,
Increasing to Mid-to-High Single Digit Percentage Accretion Over the Next Couple of Years*

Combined Company to Drive Customer Service and Maintain Commitment to Environment

Companies to Host Conference Call This Morning at 8:30 a.m. ET

San Jose, CA and Clinton, CT – March 15, 2018 – SJW Group (NYSE: SJW) and Connecticut Water Service, Inc. (NASDAQ: CTWS) today announced that both companies' boards of directors have unanimously approved a definitive agreement to combine through a merger of equals to create the 3rd largest investor-owned water and wastewater utility in the United States, based on pro forma enterprise value and combined rate base.

The combined company will have a strong multi-state presence with high-quality and well-run operations, and constructive regulatory relationships in California, Connecticut, Maine and Texas. It will serve more than 1.5 million people with over 700 employees. In addition to expanding its market presence, the increased scale and more diverse geographic footprint of the new organization provide the opportunity for investments in service and reliability that can enhance value for shareholders as well as for customers and communities. The combined company would have had operating revenue of approximately \$496 million and recurring net income of \$74 million based on a 2017 pro forma basis.

Under the terms of the agreement, Connecticut Water shareholders will receive 1.1375 shares of SJW Group common stock for each share of Connecticut Water common stock they own, the equivalent of \$61.86 per share, or about \$750 million in the aggregate, based on SJW Group's closing stock price as of March 14, 2018, and the agreed upon exchange ratio. Following closing of the transaction, SJW Group shareholders will own approximately 60 percent of the combined company, and Connecticut Water shareholders will own approximately 40 percent, on a fully diluted basis. Based on each company's closing share price as of March 14, 2018 and the 1.1375x transaction exchange ratio, the combined company would have a pro forma \$1.9 billion equity value and a \$2.6 billion enterprise value.

Eric W. Thornburg, President and Chief Executive Officer of SJW Group, said, "This transformational merger of equals joins two leading and complementary water utility companies to create significant long-term benefits for shareholders, customers, employees and the communities we serve. The combination will establish a premier organization with substantial opportunities for new investment across a diverse set of geographies and an improved ability to serve our customers."

Mr. Thornburg continued, "Having worked closely with the teams at both SJW Group and Connecticut Water, I know that we both share a passion for delivering life-sustaining water service to families and communities, serving our colleagues, being good stewards of the natural resources entrusted to us and creating shareholder value through prudent capital deployment. I am confident we have a strong cultural fit and that our people will build a unified team well-positioned to drive future growth."

David C. Benoit, President and Chief Executive Officer of Connecticut Water, said, “In addition to delivering a premium of 18 percent to Connecticut Water shareholders, this compelling combination honors our unique public health mission and entrepreneurial vision. Together, we create a new larger, stronger company capable of delivering greater value and benefits for our shareholders, customers, employees and communities than either company could deliver on its own.”

Mr. Benoit continued, “The new company’s combined leadership team is closely aligned in their focus on a ‘culture of service’ and honoring each company’s strong record of environmental stewardship. We intend to carry forward the best practices from both companies to ensure we deliver on our commitments to our shareholders, customers, employees and communities, and realize the substantial value of our unique combination.”

Strategic and Financial Benefits of the Merger

- **Highly attractive earnings accretion for SJW Group and Connecticut Water shareholders.** The combination is expected to be accretive to each company’s standalone earnings per share in the first fiscal year post-closing, increasing to mid- to high-single digit accretion in earnings per share over the next couple of years.
- **Robust balance sheet enhances financial flexibility to increase growth.** The combined company is expected to benefit from a robust balance sheet and enhanced financial flexibility, with total assets of \$2.4 billion. This will result in a stronger financial foundation and increased capital markets access yielding a lower cost of capital, which will better enable the new organization to compete for attractive growth opportunities on a national level.
- **Strong credit profile supports share repurchase.** Given the incremental debt capacity resulting from the merger and the expectation that the combined company will maintain a strong “A” credit profile, the new company expects to pursue a share repurchase program of up to \$100 million, subject to the closing of the transaction, market conditions and Board approval at the time.
- **Continuing a stable and growing dividend.** Upon closing and subject to market conditions and Board approval at the time, the new company is expected to establish a dividend at least equivalent to SJW Group’s announced 2018 annual dividend of \$1.12 per share. This represents an immediate dividend uplift of approximately 7 percent for Connecticut Water shareholders, when adjusted for the agreed exchange ratio, based on the annualized quarterly cash dividend of \$0.2975 per share declared by Connecticut Water on November 9, 2017.

Both companies expect to maintain their existing dividend payments until the transaction is completed. SJW Group and its predecessor have paid a common stock dividend for 74 consecutive years, and its annual dividend amount has increased in each of the last 50 years. Connecticut Water has paid quarterly dividends on its common stock without interruption or reduction for 62 years since its founding in 1956, and has increased dividend payments for each of the past 48 years.

Customer, Employee, Community Benefits of the Merger

- **Serving local communities with a passionate, dedicated team of locally-based water professionals.** Each of the combined company’s operating utilities and their customers will continue to be supported locally by a team of passionate, dedicated employees and existing leaders. They will bring their extensive certifications, operating experience and local knowledge to the communities they serve.

- **Delivering customer benefits.** The new organization will maintain the longstanding commitments of SJW Group and Connecticut Water to outstanding customer service, which will be enhanced by sharing of best practices, operational expertise and more extensive resources. There will be no change in customer rates as a result of the merger, and the operating subsidiaries of the combined company will each continue to be subject to oversight by their respective state regulatory commissions for rates and quality of service.
- **Leveraging technology and capital investments.** The combined company can cost effectively implement updated customer service tools across Connecticut and Maine utility operations by leveraging leading Information Services and Technology systems that have been established at SJW Group. The new company will honor commitments for approximately \$200 million of annual capital investments across its combined operations, including moving forward with the construction of the new surface water treatment facility in Saco, ME.
- **Honoring commitments to employees.** Following the close of the transaction, employees will have additional opportunities for career development and geographic mobility as part of a larger, stronger, more diverse organization. The companies do not anticipate any significant changes in employee compensation or benefits packages as a result of the transaction. SJW Group values its trusted union partnerships, and all union contracts will continue to be honored.
- **Maintaining environmental stewardship.** Environmental stewardship is a core value for both organizations, given the local nature of the water business. Both companies have been industry leaders in their efforts to promote water conservation and protect the valuable lands and water resources that have been entrusted to them. That focus will continue as the combined company seeks to further reduce its environmental footprint and look for opportunities to improve the sustainability of its business practices.
- **Ongoing support of communities.** In addition to retaining dedicated employee teams across its footprint, the new company will maintain strong community ties and participation in community events and organizations. The combined company will continue to focus on supporting economic development with investments in growth, safety and reliability.

Leadership and Headquarters

The combined company will be led by an experienced Board of Directors and leadership team that leverages the strengths and capabilities of its subsidiaries. All utility and operating subsidiaries will continue under existing local leadership and brand names – San Jose Water, SJWTX, Inc., SJW Land Company, Connecticut Water Company, Maine Water Company, Avon Water Company and Heritage Village Water Company.

Upon closing of the transaction, the Board of Directors of the combined company will consist of 12 directors, with seven directors appointed by SJW Group and five directors, including the Lead Independent Director, appointed by Connecticut Water.

Eric W. Thornburg will serve as Chairman, President and Chief Executive Officer of the newly-merged company. David C. Benoit will serve as President, New England Region, overseeing the New England operations, including Connecticut Water. In addition, Andrew R. Gere will continue serving as President and Chief Operating Officer of San Jose Water, Thomas Hodge will continue serving as President of SJWTX, Inc. and Richard Knowlton will continue serving as President of Maine Water Company. James Lynch will serve as Chief Financial Officer of the newly combined company, Kristen Johnson will serve as Chief Human Resource Officer, Suzy Papazian will serve as General Counsel and Corporate Secretary, Andrew Walters will serve as Chief Administrative Officer and Maureen Westbrook will serve as Senior Vice President of External Affairs.

The combined company's headquarters will be located in San Jose, CA, with the New England headquarters located in Clinton, CT.

Timing and Approvals

The transaction, which is expected to close by year-end 2018, is subject to customary closing conditions and approvals, including the approval of the issuance of shares in the transaction by SJW Group stockholders, the approval of Connecticut Water shareholders, the approvals of the Connecticut Public Utilities Regulatory Authority and the Maine Public Utilities Commission, the approval of the Federal Communications Commission, and the expiration or termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act. The transaction is not subject to any financing condition.

Advisors

J.P. Morgan Securities LLC is serving as financial advisor to SJW Group, and Skadden, Arps, Slate, Meagher & Flom LLP is legal counsel.

Wells Fargo Securities, LLC is serving as financial advisor to Connecticut Water, and Sullivan & Cromwell LLP is legal counsel.

Analyst / Investor Conference Call and Webcast

A joint conference call and webcast will be held today at 8:30 a.m. ET (5:30 a.m. PT) to discuss the merger.

The conference call can be accessed by dialing (866) 610-1072 for callers from the U.S. and (973) 935-2840 for international callers. The confirmation code is 8499635.

A live webcast of the conference call will be available at www.sjw-ctws.com.

A replay of the conference call will be available for two weeks, from March 15, 2018 through March 28, 2018, and can be accessed by dialing (800) 585-8367 and providing the 8499635 confirmation code. The webcast will also be archived at www.sjw-ctws.com.

Presentation and Infographic

Associated presentation materials and an infographic regarding the transaction will be available at www.sjw-ctws.com.

About SJW Group

SJW Group is a publicly traded holding company headquartered in San Jose, California. SJW Group is the parent company of San Jose Water, SJWTX, Inc., and SJW Land Company. Together, San Jose Water and SJWTX, Inc. provide water service to more than one million people in San Jose, California and nearby communities and in Canyon Lake, Texas and the nearby communities. SJW Land Company owns and operates commercial real estate investments.

About CTWS

CTWS is a publicly traded holding company headquartered in Clinton, Connecticut. CTWS is the parent company of The Connecticut Water Company, The Maine Water Company, The Avon Water Company, and The Heritage Village Water Company. Together, these subsidiaries provide water service to more than 450,000 people in Connecticut and Maine, and wastewater service to more than 10,000 people in Connecticut.

Forward Looking Statements

This document contains forward-looking statements within the meaning of the Private Litigation Reform Act of 1995, as amended. Some of these forward-looking statements can be identified by the use of forward-looking words such as “believes,” “expects,” “may,” “will,” “should,” “seeks,” “approximately,” “intends,” “plans,” “estimates,” “projects,” “strategy,” or “anticipates,” or the negative of those words or other comparable terminology.

The accuracy of such statements is subject to a number of risks, uncertainties and assumptions including, but not limited to, the following factors: (1) the risk that the conditions to the closing of the transaction are not satisfied, including the risk that required approvals from the shareholders of Connecticut Water or the stockholders of SJW Group for the transaction are not obtained; (2) the risk that the regulatory approvals required for the transaction are not obtained, or that in order to obtain such regulatory approvals, conditions are imposed that adversely affect the anticipated benefits from the proposed transaction or cause the parties to abandon the proposed transaction; (3) the risk that the anticipated tax treatment of the transaction is not obtained; (4) the effect of water, utility, environmental and other governmental policies and regulations; (5) litigation relating to the transaction; (6) uncertainties as to the timing of the consummation of the transaction and the ability of each party to consummate the transaction; (7) risks that the proposed transaction disrupts the current plans and operations of Connecticut Water or SJW Group; (8) the ability of Connecticut Water and SJW Group to retain and hire key personnel; (9) competitive responses to the proposed transaction; (10) unexpected costs, charges or expenses resulting from the transaction; (11) potential adverse reactions or changes to business relationships resulting from the announcement or completion of the transaction; (12) the combined companies' ability to achieve the growth prospects and synergies expected from the transaction, as well as delays, challenges and expenses associated with integrating the combined companies' existing businesses; and (13) legislative and economic developments. These risks, as well as other risks associated with the proposed transaction, will be more fully discussed in the joint proxy statement/prospectus that will be included in the Registration Statement on Form S-4 that will be filed with the Securities and Exchange Commission (“SEC”) in connection with the proposed transaction.

In addition, actual results are subject to other risks and uncertainties that relate more broadly to SJW Group's overall business, including those more fully described in SJW Group's filings with the SEC including its annual report on Form 10-K for the fiscal year ended December 31, 2017, and Connecticut Water's overall business and financial condition, including those more fully described in Connecticut Water's filings with the SEC including its annual report on Form 10-K for the fiscal year ended December 31, 2017 (which will be filed today). Forward looking statements are not guarantees of performance, and speak only as of the date made, and neither SJW Group or its management nor Connecticut Water or its management undertakes any obligation to update or revise any forward-looking statements.

Additional Information and Where to Find It

In connection with the proposed transaction between SJW Group and Connecticut Water, SJW Group will file with the SEC a Registration Statement on Form S-4 that will include a joint proxy statement of SJW Group and Connecticut Water that also constitutes a prospectus of SJW Group. SJW Group and Connecticut Water may also file other documents with the SEC regarding the proposed transaction. This document is not a substitute for the joint proxy statement/prospectus, Form S-4 or any other document which SJW Group or Connecticut Water may file with the SEC. **INVESTORS AND SECURITY HOLDERS OF SJW GROUP AND CONNECTICUT WATER ARE URGED TO READ THE REGISTRATION STATEMENT, THE JOINT PROXY STATEMENT/PROSPECTUS AND ALL OTHER RELEVANT DOCUMENTS THAT ARE FILED OR WILL BE FILED WITH THE SEC, AS WELL AS ANY AMENDMENTS OR SUPPLEMENTS TO THESE DOCUMENTS, CAREFULLY AND IN THEIR ENTIRETY BECAUSE THEY CONTAIN OR WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTION AND RELATED MATTERS.** Investors and security holders may obtain free copies of the Form S-4 and the joint proxy statement/prospectus (when available) and other documents filed with the SEC by SJW Group and Connecticut Water through the website maintained by the SEC at www.sec.gov. Copies of documents filed with the SEC by SJW Group will be made available free of charge on SJW Group's investor relations website at https://sjwgroup.com/investor_relations. Copies of documents filed with the SEC by Connecticut Water will be made available free of charge on Connecticut Water's investor relations website at <https://ir.ctwater.com/>.

No Offer or Solicitation

This communication is for informational purposes only and is not intended to and does not constitute an offer to sell, or the solicitation of an offer to subscribe for or buy, or a solicitation of any vote or approval in any jurisdiction, nor shall there be any sale, issuance or transfer of securities in any jurisdiction in which such offer, sale or solicitation would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. No offer of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the Securities Act of 1933, as amended, and otherwise in accordance with applicable law.

Participants in the Solicitation

SJW Group, Connecticut Water and certain of their respective directors and officers, and other members of management and employees, may be deemed to be participants in the solicitation of proxies from the holders of SJW Group and Connecticut Water securities in respect of the proposed transaction. Information regarding SJW Group's directors and officers is available in SJW Group's annual report on Form 10-K for the fiscal year ended December 31, 2017 and its proxy statement for its 2018 annual meeting dated March 6, 2018, which are filed with the SEC. Information regarding Connecticut Water's directors and officers is available in Connecticut Water's annual report on Form 10-K for the fiscal year ended December 31, 2017, which will be filed today, and its proxy statement for its 2017 annual meeting dated March 30, 2017, which is filed with the SEC. Investors may obtain additional information regarding the interest of such participants by reading the Form S-4 and the joint proxy statement/prospectus (when available) and other documents filed with the SEC by SJW Group and Connecticut Water. These documents will be available free of charge from the sources indicated above.

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Reading Eagle: Jeremy Drey | The Exeter Township supervisors have voted to sell the township's wastewater treatment system, including the plant, to Pennsylvania American Water Co. for \$96 million. The sale requires state approval.

WEDNESDAY MAY 30, 2018 10:00 AM

Company finalizes deal to purchase Exeter Township wastewater system

Pennsylvania American Water has signed an agreement to buy the system for \$96 million.

WRITTEN BY READING EAGLE

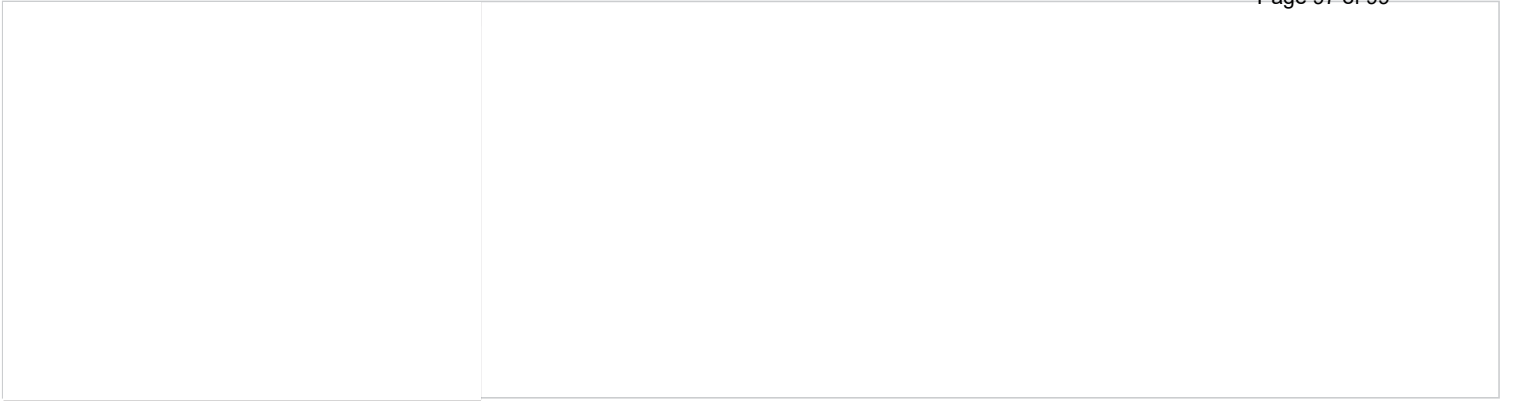
EXETER TOWNSHIP, PA - The purchase of the Exeter Township wastewater-treatment plant and system to a private company for \$96 million has been finalized, a move supervisors that expect will save taxpayers money and put the municipality on much better financial footing.

Pennsylvania American Water Co., which supplies water to the township and operates 15 wastewater-treatment systems statewide, announced Wednesday that it has signed an agreement to acquire the Exeter Township assets.

The supervisors voted 4-1 on April 23 (<http://www.readingeagle.com/news/article/exeter-township-supervisors-agree-to-sell-municipal-wastewater-system-for-96-million>) to approve the sale. Township Manager John A. Granger said at that time that if the sale went through as planned, it would allow the township to hold real estate taxes steady for 10 years or more; pay for future capital projects including equipment replacement, township building relocation and storm sewer improvements; and still leave \$48 million in the bank.

The sale will require Pennsylvania Utility Commission approval, meaning the earliest the company is likely to take ownership would be early next year.

Pennsylvania American Water President Jeffrey L. McIntyre said in a press release the company has been providing water service to about <http://www.readingeagle.com/news/article/company-finalizes-deal-to-purchase-exeter-township-wastewater-system>



70 percent of the township's customers for many years and are excited for the opportunity to serve the entire township.

There are about 9,000 properties in Exeter connected to the wastewater system.

"We are well-equipped to offer the technical expertise and financial resources needed to ensure the system meets all the environmental compliance challenges it will face in the future," he said.

McIntyre said he looks forward to welcoming the township's wastewater employees to the Pennsylvania American Water team.

Pennsylvania American has also committed to invest \$3 million in improvements within Exeter Township.

McIntyre said that the company will partner with the township to identify areas where aging facilities can be replaced in conjunction with street and sidewalk improvements, economic development projects or other local infrastructure needs.

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Steelton Borough Authority

10-Year Capital Improvement Plan
Water Treatment and Distribution System
Borough of Steelton, Dauphin County, PA

March 2018



**[BUILDING RELATIONSHIPS.
DESIGNING SOLUTIONS.]**

10-YEAR CAPITAL IMPROVEMENT PLAN WATER TREATMENT AND DISTRIBUTION SYSTEM

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**10-YEAR CAPITAL IMPROVEMENT PLAN
WATER TREATMENT AND DISTRIBUTION SYSTEM**

BOROUGH OF STEELTON, DAUPHIN COUNTY, PENNSYLVANIA

1.0 – EXECUTIVE SUMMARY

The primary intent of the Capital Improvement Plan (CIP) is to identify areas and/or specific facilities within the Authority's water treatment and distribution system that require future rehabilitation and/or improvements to maintain satisfactory operation over the next ten (10) years.

Herbert, Rowland & Grubic, Inc. (HRG) has prepared the CIP based on site visits with Borough staff, identified historical operations issues, a review of existing reports and operational data, regulatory compliance requirements and our general understanding of the water treatment and distribution systems through our involvement in numerous Authority projects.

The individual project cost estimates provided in Table 1.1 below are conceptual and were developed based upon available record drawings, GIS mapping and attribute data available at the time of this report. These cost estimates are intended to provide an order or magnitude of total project costs for budgeting/planning purposes. It should be noted that costs may be reduced through combining like improvements into a single project or contract. As individual studies are prepared, as a component of project design, costs identified in the CIP may increase or decrease based upon further definition of project scope, design criteria, and identification of actual asset conditions. Table 1.1 presents the estimated project cost estimates based on 2018 dollars for each recommended project.

Table 1.1 10 Year Capital Improvements Estimated Project Cost

Water Treatment Plant (WTP)			
Project	Description	Estimated Project Cost	Implementation Schedule
WTP-1	Source Water Monitoring	\$21,000	2019-2020
WTP-2	TOC Monitoring/Removal	\$20,000	2019-2020
WTP-3	Pre-Oxidant System Optimization (Potassium Permanganate)	\$15,000	2019-2020
WTP-4	Improve Process Control of Chlorine Feed Systems	\$25,000	2019-2020
WTP-5	Water Treatment Plant Upgrade	\$14,000,000	2023-2028
Distribution System (DS)			
Project	Description	Estimated Project Cost	Implementation Schedule
DS-1	Automatic Flushers	\$22,500	2020
DS-2 ⁽¹⁾	Additional Chlorine Injection Point	\$450,000	2021-2022
DS-3	Elimination of Dual Mains	\$25,000	2020
DS-4	Distribution System Improvements	\$250,000 (per year)	2019-2028

Finished Water Storage Tank (T)			
Project	Description	Estimated Project Cost	Implementation Schedule
T-1 ^[2]	Mixing/Aeration System	\$250,000	2020-2021
Additional Work (AW)			
Project	Description	Estimated Project Cost	Implementation Schedule
AW-1	Finished Water Pump VFD Optimization	\$60,000	2019-2020
AW-2 ^[3]	High Service Distribution Investigation	\$6,000	2019-2020
AW-3	SCADA/Process Control	\$200,000	2019-2020
AW-4	Water Meter Installation	\$50,000	2021-2022

Notes:

[1] Chlorine injection station projects should be implemented after analysis of post-clearwell tank project operational data and in accordance with the Disinfection Requirements Rule (DRR) implementation schedule.

[2] This project may be implemented at either the water treatment plant or the finished water storage tanks. A determination will be made after post-clearwell tank project operational data has been collected and evaluated and all DRR compliance alternatives have been considered.

[3] The estimated project cost shown does not include any improvements determined to be necessary after completion of the investigation work.

2.0 – INTRODUCTION

2.1 – BACKGROUND

The Authority under permit PWSID 7220036 provides water to approximately 6,311 consumers through 2,421 metered service connections. The existing water system consists of two components, the water treatment plant (WTP) and the distribution system.

The Authority's WTP obtains all water from a raw water intake located on the Susquehanna River in Dauphin County. Constructed in 1973, the WTP serves the community of Steelton and some homes in Swatara Township. While the WTP's permitted capacity is 3.0 MGD (2,083 gpm), the WTP maintains a typical daily production rate of 1.6 to 2.4 MGD (1,111 to 1,670 gpm). The WTP is staffed 24 hours per day however, the time of operation is typically 13 to 16 hours per day, 7 days per week. The existing treatment process at the WTP currently consists of potassium permanganate for DBP control, alum for coagulation, flash mixing, two upflow sludge blanket clarifiers for flocculation and sedimentation, four multimedia filters and chlorine disinfection. A polymer is also added to the flash mixer to aid in clarifier blanket formation. The existing filtration system is manufactured by INFILCO and was originally installed in 1973. Various upgrades to the filtration system have been performed over the years with the most recent upgrades being completed in 2017 (new clearwell).

Two (2) vertical turbine raw water pumps with variable frequency drives (VFD's) convey the water from the raw water pumping station to the up-flow clarifier rapid mix tank. From there, the water flows by gravity through the treatment process into the existing clearwell. Two (2) centrifugal finished water pumps with VFD's convey the water from the clearwell to the distribution system. Production at the WTP typically ends when the finished water storage tanks have been filled to their maximum operating levels. During the hours when the WTP is not in production, the distribution system is fed from the finished water storage tanks.

The existing Authority distribution system generally consists of a network of water distribution piping including approximately 28 miles of pipe ranging from 4 inch diameter to 20 inch diameter, one water booster station, two – 2 million gallon (MG) finished water storage tanks, and two interconnections that provide water service to various residential, commercial, institutional, and industrial properties throughout the Borough.

2.2 – NECESSARY IMPROVEMENTS TO COMPLY WITH STATE AND FEDERAL REGULATIONS

The water treatment and distribution system is regulated by the Safe Drinking Water Act enforced by the United States Environmental Protection Agency (USEPA) and the Pennsylvania Department of Environmental Protection (PADEP).

Currently, the major regulatory drivers faced by the Authority for compliance with the Safe Drinking Water Act include the following:

Stage 2 Disinfectants and Disinfection Byproducts Rule:

The purpose of the Stage 2 Disinfectants and Disinfection Byproducts Rule (DBPR) is to increase public health protection by reducing the potential risk of adverse health effects associated with DBPs through the distribution system. The Stage 2 DBPR builds on the Stage 1 DBPR by focusing on monitoring for and reducing concentrations of two classes of DBPs – TTHM and HAA5 – in drinking water. The Authority was required to begin complying with monitoring requirements effective October 1, 2013. The Authority is required to meet the following requirements:

1. Monitor TTHM and HAA5 quarterly at two (2) distribution system locations as determined during previously approved sampling plan.
2. Comply with the Stage 2 DBPR Regulated Contaminants limits as summarized below in Table 2.1.

Table 2.1 Stage 2 DBPR Regulated Contaminants

Regulated Contaminants	MCLG (mg/L)	MCL (mg/L)
Total Trihalomethanes (TTHM)	-	0.080 LRAA
Chloroform	0.07	-
Bromodichloromethane	0	-
Dibromochloromethane	0.06	-
Bromoform	0	-
Five Haloacetic Acids (HAA5)	-	0.060 LRAA
Monochloroacetic acid	0.07	-
Dichloroacetic acid	0	-
Trichloroacetic acid	0.02	-
Bromoacetic acid	-	-
Dibromoacetic acid	-	-

Revised Total Coliform Rule:

The Total Coliform Rule was revised to further protect human health through the reduction of potential pathways of entry for fecal contamination into distribution systems. The Revised Total Coliform Rule (RTCR) establishes a MCL for E. coli and uses E. coli and total coliforms to initiate a “find and fix” approach to address fecal contamination that could enter into the distribution system. The RTCR requires the Authority to perform assessments to identify sanitary defects and subsequently take action to correct them. The RTCR went into effect on April 1, 2016. Prior to April 1, 2016, the Authority was required to develop a written sample siting plan that identifies the system’s sample collection schedule and all sample sites, including sites for routine and repeat monitoring.

Proposed Disinfection Requirements Rule:

The Proposed Disinfection Requirements Rule (DRR) in its final-form version was delivered by the PA Environmental Quality Board (EQB) to the PA House and Senate Environmental Resources and Energy Committee and IRRC for consideration at the IRRC’s February 22, 2018 meeting and was approved by the IRRC. The DRR is intended to protect public health through a multiple barrier approach designed to guard against microbial contamination by ensuring the adequacy of treatment designed to inactivate microbial pathogens and the integrity of drinking water distribution systems. More information will be provided in 2018 relative to the DRR compliance deadlines including site sampling plan submission deadlines.

The proposed DRR includes the following:

1. New monitoring and reporting requirements for surface water and groundwater under the direct influence of surface water (GUDI) systems regarding the calculation and reporting of CT/log inactivation values.
2. A clarification that the minimum entry point chlorine residual for surface water and GUDI systems is 0.20 mg/L.
3. Increased disinfectant residual requirements in the distribution system from 0.02 mg/L to 0.2 mg/L at all points in the distribution system. Monitoring must be conducted on a weekly basis as per a sample siting plan.
4. New requirements for a nitrification control plan for systems that use chloramines.

3.0 – NECESSARY IMPROVEMENTS AND ASSOCIATED COSTS

3.1 - WATER TREATMENT PLANT PROCESS PROJECTS (WTP)

Project WTP-1: Source Water Monitoring

The Authority currently relies on the Susquehanna River as its main source of water supply. The river is classified as a surface water source and as such, is highly vulnerable to accidental or intentional contaminants and weather related or seasonal changes. Because surface water is exposed to natural and man-made influences, it has a broader exposure to organic matter responsible for DBP formation. Source water precursor concentrations and temperatures can have significant effects on DBP formation. For the Authority, it may be beneficial to consider implementing a source water monitoring program to aid in process control and identifying the causes of future OEL exceedances. Currently, the Operators do not have a way to sample the

raw water prior to the addition of their pre-oxidant chemical (potassium permanganate). The installation of a source water monitoring system would provide the operators with information to:

1. Determine the best disinfection strategy based on changing water conditions.
2. Control their chemical feed process in real-time based on changing source water conditions.
3. Establish a baseline for tracking DBP removal.

Steelton staff have obtained a quote for the purchase of source water analytical equipment. This monitoring equipment includes measurement of the following parameters (pH, Oxidation Reduction Potential - ORP, Turbidity). The ability to add additional monitoring parameters could be considered as part of this improvement.

The estimated project cost is \$21,000.

Project WTP-2: TOC Monitoring / Removal

The formation of DBP's is greatly influenced by the amount of precursors, such as natural organic matter (NOM) in the source water. Since NOM is difficult and expensive to measure, total organic carbon (TOC) is used as a substitute measurement and indicator of precursors to DBP formation. As part of the compliance with the Stage 1 DBP Rule, the Authority is required to maintain a TOC removal efficiency of 25% or greater. The March 2015 Optimized DBP Removal Study that was previously completed by HRG and the Authority reported the use of enhanced coagulation to improve DBP precursor removal proved to be effective based on the results of jar testing. The goal of achieving a TOC removal efficiency of greater than 25% was met consistently within a specific range of pH conditions.

This project includes development of further testing protocols that will help establish coagulation conditions to improve the removal of TOC at the WTP prior to chlorine addition.

The estimated project cost is \$20,000.

Project WTP-3: Pre-Oxidant System Optimization (Potassium Permanganate)

The main goal of water treatment with sodium or potassium permanganate is to provide adequate pre-oxidation to remove organics and/or dissolved metals, such as manganese and iron, from the water. Surface water systems (such as the Authority) primarily rely on a pre-oxidation treatment process to improve the removal of NOM as a means to minimize formation of DBPs. Currently, the Operators have limited ability to monitor and control the pre-oxidation chemical feed system based on changing water conditions. In addition, improvement to the actual dosing location (such as mixing) have been identified during previous site visits and evaluations as a way to help improve the effectiveness of the chemicals.

This project includes development of further testing protocols that will help to optimize the pre-oxidation treatment process.

The estimated project cost is \$15,000.

Project WTP-4: Improve Process Control of Chlorine Feed Systems

This project includes Operator development of real-time process control monitoring strategies (such as data trending) that will allow the Operators to control their chemical feed processes in real-time based on actual source water conditions. Improvements to be considered under this project include the addition of new PLC monitoring equipment and data trending software.

The estimated project cost is \$25,000.

Project WTP-5 - Water Treatment Plant Upgrade

Anticipated upgrades to the existing WTP will be needed due to various limiting factors including; age of facility (the main process components are nearly 50 year old), the existing treatment technology, and pending regulations that may require more stringent regulatory requirements. In addition, various comments included in previous Filter Plant Performance Evaluations (FPPE) conducted by the PADEP continue to remain unaddressed due to physical limitations within the current treatment process.

This project includes replacing the existing up flow clarifiers and dual media filtration system with a new pressurized ultrafiltration treatment system. Work includes installation of the following new facilities: ultrafiltration feed pumps, ultrafiltration units, GAC vessels, backwash system, building modifications, chemical feed systems and demolition of existing equipment and structures, electrical and control work.

The estimated project cost is \$14,000,000.

3.2 – DISTRIBUTION SYSTEM PROJECTS (DS)

Project DS-1: Automatic Flushers

Periodic flushing can be an effective tool to control TTHM and HAA5 peaks and maintain chlorine residuals by purging stagnant water to reduce water age and by cleaning pipes that exert chlorine demand. Automatic flushers are devices that induce continuous or automatic intermittent flow of water designed to remove old water from dead-end or stagnate zones and pull fresher water into these locations from other areas.

The project includes installation of automatic flushers in areas where there is high water age.

The estimated project cost is \$7,500 per automatic flusher or \$22,500 for installation of three (3) automatic flushers throughout the system.

Project DS-2: Additional Chlorine Injection Point Locations (RTCR/DRR Compliance)

Chlorine dosage within the Authority's WTP must simultaneously inactivate microbes, provide maintenance of a residual at all points in the distribution system, and comply with all applicable regulatory requirements (RTCR/DRR Compliance, etc.) Currently, chlorination of the Authority's drinking water is provided only at the WTP. Distribution sampling results have indicated that the chlorine residual in portions of the distribution system (mainly the EED) may reach very low levels. In this case, one or more booster chlorination stations may need to be considered in the distribution system in order to observe higher chlorine residuals at all locations in the system or the 0.2 mg/L proposed by the DRR.

Network hydraulic values, tank water levels and chlorine concentrations may vary over the course of one day due to changes in consumer demand. For this reason, the optimum location of a booster chlorination station, injection rates and scheduling must be considered together. This project includes re-evaluation of the need for this improvement after analysis of post-clearwell tank project operational data and in accordance with the Disinfection Requirements Rule (DRR) implementation schedule.

The estimated project cost for the installation of each new chlorine injection point is \$150,000 or \$450,000 for installation of three (3) chlorine injection point locations.

Project DS-3: Elimination of Dual Mains

There are currently two (2) 10-inch diameter transmission mains (each approximately 4,400 feet in length) that convey water to the East End which equates to approximately 18,000 gallons of water in each pipe or 36,000 total gallons. The East End average daily demand is approximately 43,000 gallons per day. The purpose of the dual transmission mains was to provide back-up in order to continually provide water to the East End in case one of the transmission mains experienced a water break and needed to be shut down. The East End demand is not significant enough to create adequate turnover in the dual mains which is contributing to a higher water age in this area.

This project includes installation of a check valve on the 10-inch transmission main near McKinley Street.

The estimated project cost is \$25,000.

Project DS-4: Distribution System Improvements

In order to properly maintain aging portions of the Authority's water system, a cost of \$250,000 per year beginning in 2019 has been allocated to miscellaneous distribution system improvements within the Borough. These improvements include replacement of aging water main pipe and appurtenances and water system looping. The location of the improvements will be prioritized based on input from Borough Staff.

3.3 – FINISHED WATER STORAGE TANK PROJECTS (T)

Project T-1: Mixing / Aeration System

Research has shown that TTHMs are very susceptible to removal by aeration. In addition, aeration seems to be most effective on waters containing high TTHM levels including water systems with high water age, consecutive systems and systems relying on surface water as the main source.

Based on the limited thermal stratification in the tank, the installation of a tank mixing system is not recommended at this time. However, it is likely that provisions for the installation of a mixing system would be included as part of the design concept for any aeration system that may be installed within the tanks.

The optimum location for a mixing/aeration system to serve the Authority system may be at the WTP prior to the entry point for additional TTHM removal. However, installation at the finished water storage tanks could assist with chlorine residual maintenance. A determination will be made after

post-clearwell tank project operational data has been collected and evaluated and all DRR compliance alternatives have been considered.

The estimated project cost is \$250,000.

3.4 – ADDITIONAL WORK PROJECTS (AW)

Project AW-1: Finished Water Pump VFD Optimization

Operators continue to deal with on-going issues related to the finished water pump VFDs. Operators report that these issues seem to be worse during the summer months, when the temperature and humidity appear to cause the VFDs to fail. During this time, the Operators are often forced to run these pumps in Manual mode.

This project includes development of a permanent solution to address finished water pump VFD issues.

The estimated project cost is \$60,000.

Project AW-2: High Service Distribution Investigation

It has been identified during the course of this evaluation that further investigation of the high service distribution system and booster pump station is necessary to determine the cause of the irregular pressure and flow values that were observed during the flow hydrant testing. Investigation of the check valves that separate the high service distribution and main service distribution system should be completed to verify the operation and settings during fire flow conditions. In addition, the Operators have reported in the past that the booster station pumps are unable to maintain the required system pressure during fire flow testing.

This project includes further evaluation of the high service distribution system check valve network and the booster station pumps to confirm proper operation and determine necessary improvements.

The estimated project cost is \$6,000. This cost does not include any improvements determined to be necessary after completion of the investigation work.

Project AW-3: SCADA / Process Control

Due to the limited number of PLC's, communication system infrastructure and software reporting capabilities at the WTP, the Operators are limited in their ability to record and trend numerous process control variables that are necessary to make real-time process control decisions in response to changing source water quality conditions. In response to more stringent regulatory requirements, additional process instrumentation is continuing to be installed at the WTP.

This project includes SCADA system upgrades that can be installed at the WTP in an effort to stream-line the data trending and reporting process, and provide an additional means to back-up data required for regulatory compliance.

The estimated project cost is \$200,000 and includes the following:

1. Two (2) new PLC's (one in raw water station and one in back of main instrument board).
2. Ethernet over fiber optics connection from raw water station PLC to main PLC.

3. New Ethernet connections in WTP.
4. Three (3) new PC with a graphic software package that includes alarms and trending.
5. Reporting software.
6. All necessary field devices, wiring, conduit, etc.
7. Programming, Training and Start-up assistance.

Project AW-4: Water Meter Installation

It has been identified that there appears to be discrepancies between the reported commercial user water demands and the actual commercial user water demands. Specifically, it appears that there is a significant, continuous water demand that is occurring overnight when the WTP is offline.

This project includes identification of the most ideal locations to install additional water meters throughout the distribution system, primarily on the service lines serving the significant commercial users. This information will provide more accurate, continuous flow data that can be used to monitor system wide water usage and to help identify any unaccounted water loss.

The estimated project cost is \$50,000.

Steelton Borough Authority
Recommended Capital Structure and Cost Rates

<u>Type Of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	50.00%	4.83% (1)	2.42%
Common Equity	<u>50.00%</u>	11.00% (2)	<u>5.50%</u>
Total	<u><u>100.00%</u></u>		<u><u>7.92%</u></u>

Notes:

- (1) Company-Provided.
- (2) From page 2 of this Appendix.

Steelton Borough Authority
Brief Summary of Common Equity Cost Rate

<u>Line No.</u>	<u>Principal Methods</u>	<u>Proxy Group of Eight Water Companies</u>
1.	Discounted Cash Flow Model (DCF) (1)	9.11%
2.	Risk Premium Model (RPM) (2)	11.44%
3.	Capital Asset Pricing Model (CAPM) (3)	10.71%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	<u>12.17%</u>
5.	Recommended Common Equity Cost Rate	<u><u>11.00%</u></u>

- Notes: (1) From page 4 of this Appendix.
(2) From page 13 of this Appendix.
(3) From page 25 of this Appendix.
(4) From page 30 of this Appendix.

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Eight Water Companies
2012-2016, inclusive

	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>5 YEAR AVERAGE</u>
<u>American States Water Co.</u>						
Long-Term Debt	39.40 %	41.15 %	39.15 %	40.30 %	42.49 %	40.50 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	60.60	58.85	60.85	59.70	57.51	59.50
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>American Water Works Company Inc.</u>						
Long-Term Debt	54.74 %	53.89 %	52.70 %	52.42 %	54.30 %	53.61 %
Preferred Stock	0.09	0.11	0.15	0.17	0.21	0.15
Common Equity	45.17	46.00	47.15	47.41	45.49	46.24
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Aqua America Inc.</u>						
Long-Term Debt	50.81 %	50.76 %	49.45 %	50.32 %	53.41 %	50.95 %
Preferred Stock	0.00	0.00	0.00	0.01	0.01	0.00
Common Equity	49.19	49.24	50.55	49.67	46.58	49.05
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>California Water Service Group</u>						
Long-Term Debt	45.83 %	44.69 %	40.46 %	42.03 %	50.39 %	44.68 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	54.17	55.31	59.54	57.97	49.61	55.32
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Connecticut Water Service Inc.</u>						
Long-Term Debt	46.02 %	44.54 %	45.91 %	47.34 %	49.03 %	46.57 %
Preferred Stock	0.18	0.19	0.20	0.20	0.21	0.20
Common Equity	53.80	55.27	53.89	52.46	50.76	53.23
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Middlesex Water Co.</u>						
Long-Term Debt	38.91 %	40.44 %	41.55 %	41.36 %	43.53 %	41.16 %
Preferred Stock	0.67	0.69	0.71	0.88	1.02	0.79
Common Equity	60.42	58.87	57.74	57.76	55.45	58.05
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>SIW Corp.</u>						
Long-Term Debt	50.69 %	50.03 %	51.66 %	51.09 %	55.39 %	51.77 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	49.31	49.97	48.34	48.91	44.61	48.23
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>York Water Co.</u>						
Long-Term Debt	42.60 %	44.46 %	44.81 %	45.07 %	45.98 %	44.58 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	57.40	55.54	55.19	54.93	54.02	55.42
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>
<u>Proxy Group of Eight Water Companies</u>						
Long-Term Debt	46.13 %	46.25 %	45.71 %	46.24 %	49.32 %	46.73 %
Preferred Stock	0.12	0.12	0.13	0.16	0.18	0.14
Common Equity	53.75	53.63	54.16	53.60	50.50	53.13
Total Capital	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>	<u>100.00 %</u>

Source of Information
Annual Forms 10-K

Steelton Borough Authority
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for
Proxy Group of Eight Water Companies

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Reuters Mean Consensus Projected Five Year Growth Rate in EPS	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
1.85 %	6.50 %	4.00 %	4.00 %	4.00 %	4.63 %	1.89 %	6.52 %
1.95	8.50	10.60	7.50	8.20	8.70	2.03	10.73
2.25	7.00	7.00	5.50	5.00	6.13	2.32	8.45
1.78	10.00	NA	6.00	9.80	8.60	1.86	10.46
2.15	6.50	6.00	6.00	6.00	6.13	2.22	8.35
2.31	9.00	NA	NA	2.70	5.85	2.38	8.23
1.87	7.00	NA	NA	14.00	10.50	1.97	12.47
2.08	9.50	NA	NA	4.90	7.20	2.15	9.35
						Average	9.32 %
						Median	8.90 %
						Average of Mean and Median	9.11 %

NA= Not Available

Notes:

- (1) Indicated dividend at 02/28/2018 divided by the average closing price of the last 60 trading days ending 02/28/2018 for each company.
- (2) From pages 5 through 12 of this Appendix.
- (3) Average of columns 2 through 5 excluding negative growth rates.
- (4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 6) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for American States Water Co., $1.85\% \times (1 + (1/2 \times 4.63\%)) = 1.89\%$.
- (5) Column 6 + column 7.

Source of Information:

Value Line Investment Survey
www.reuters.com Downloaded on 02/28/2018
www.zacks.com Downloaded on 02/28/2018
www.yahoo.com Downloaded on 02/28/2018

AMER. STATES WATER NYSE-AWR					RECENT PRICE	P/E RATIO	TRAILING P/E	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE													
TIMELINESS 2 Raised 12/1/17					56.40	32.0	(Trailing: 30.8 Median: 20.0)	1.56	1.9%														
SAFETY 2 Raised 7/20/12																							
TECHNICAL 2 Raised 12/29/17																							
BETA .80 (1.00 = Market)																							
2020-22 PROJECTIONS High Price 55, Low Price 40, Gain (Nil), Return 2%, Ann'l Total -5%										Target Price Range	2020	2021	2022										
Insider Decisions M A M J J A S O N to Buy 0 0 0 0 0 0 0 0 0 0 to Sell 11 0 8 2 0 3 4 0 2 Options 3 1 4 3 2 4 3 2 4					Institutional Decisions 1Q2017 2Q2017 3Q2017 to Buy 87 96 104 to Sell 89 84 79 Hid's(000) 29082 28355 27880					Percent shares traded: 24, 16, 8					% TOT. RETURN 12/17 1 yr. 29.8, VL ARITH. 15.8 3 yr. 64.1, 30.1 5 yr. 172.0, 92.5								
2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC			20-22		
6.53	6.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.17	12.56	11.92	12.40	12.65	12.65	Revenues per sh	15.95			
1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.65	2.67	2.81	2.70	2.85	3.05	3.05	"Cash Flow" per sh	3.85			
.67	.67	.39	.53	.66	.67	.81	.78	.81	1.11	1.12	1.41	1.61	1.57	1.60	1.62	1.85	1.85	1.85	Earnings per sh ^A	2.35			
.43	.44	.44	.44	.45	.46	.48	.50	.51	.52	.55	.64	.76	.83	.87	.91	.99	1.06	1.06	Div'd Decl'd per sh ^B	1.35			
1.59	1.34	1.88	2.51	2.12	1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.52	1.89	2.39	3.55	3.15	3.15	3.15	Cap'l Spending per sh	3.60			
6.61	7.02	6.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.24	12.77	13.52	14.20	14.85	14.85	Book Value per sh	16.80			
30.24	30.36	30.42	33.50	33.60	34.10	34.46	34.60	37.06	37.26	37.70	38.53	38.72	38.29	36.50	36.57	36.70	36.80	36.80	Common Shs Outst'g ^C	37.00			
16.7	18.3	31.9	23.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	20.1	24.6	25.6	26.1	26.1	26.1	Avg Ann'l P/E Ratio	21.0			
.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.06	1.24	1.35	1.27	1.27	1.27	Relative P/E Ratio	1.30			
3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%	2.2%	2.2%	2.0%	2.0%	2.0%	Avg Ann'l Div'd Yield	2.8%			
CAPITAL STRUCTURE as of 9/30/17 Total Debt \$367.3 mill. LT Interest \$21.3 mill. (38% of Cap'l) Leases, Uncapitalized: Annual rentals \$2.5 mill. Pension Assets-12/16 \$150.9 mill. Oblig. \$180.4 mill. Pfd Stock None. Common Stock 36,679,175 shs. as of 10/1/17 MARKET CAP: \$2.1 billion (Mid Cap)					301.4	318.7	361.0	398.9	419.3	466.9	472.1	465.8	458.6	436.1	445	470	470	470	470	470	470	Revenues (\$mill)	590
					28.0	26.8	29.5	41.4	42.0	54.1	62.7	61.1	60.5	59.7	62.0	66.0	66.0	66.0	66.0	Net Profit (\$mill)	87.0		
					42.6%	37.8%	38.9%	43.2%	41.7%	39.9%	36.3%	38.4%	38.4%	36.8%	36.5%	21.0%	38.4%	36.8%	36.5%	21.0%	Income Tax Rate	21.0%	
					8.5%	6.9%	3.2%	5.8%	2.0%	2.5%	--	--	2.5%	5%	1.5%	2.0%	2.0%	2.0%	2.0%	AFUDC % to Net Profit	2.5%		
					46.9%	46.2%	45.9%	44.3%	45.4%	42.2%	39.8%	39.1%	41.1%	39.4%	40.0%	42.0%	42.0%	42.0%	42.0%	42.0%	Long-Term Debt Ratio	43.5%	
					53.1%	53.8%	54.1%	55.7%	54.6%	57.8%	60.2%	60.9%	58.9%	60.6%	60.0%	58.0%	58.0%	58.0%	58.0%	58.0%	Common Equity Ratio	56.5%	
					569.4	577.0	665.0	677.4	749.1	787.0	818.4	832.6	791.5	815.3	870	935	935	935	935	935	Total Capital (\$mill)	1100	
					776.4	825.3	866.4	855.0	896.5	917.8	981.5	1003.5	1060.8	1150.9	1200	1250	1250	1250	1250	1250	Net Plant (\$mill)	1400	
					6.7%	6.4%	5.9%	7.6%	7.1%	8.3%	8.9%	8.6%	9.0%	8.6%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	Return on Total Cap'l	9.0%	
					9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	12.1%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	Return on Shr. Equity	14.0%	
					9.3%	8.6%	8.2%	11.0%	10.3%	11.9%	12.7%	12.0%	13.0%	12.1%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	Return on Com Equity	14.0%	
					3.9%	3.1%	3.2%	5.8%	5.3%	6.6%	6.8%	5.7%	6.0%	5.3%	5.0%	5.5%	5.5%	5.5%	5.5%	5.5%	Retained to Com Eq	6.0%	
					58%	64%	61%	47%	49%	45%	47%	53%	54%	56%	58%	58%	58%	58%	58%	58%	All Div's to Net Prof	57%	
ANNUAL RATES of change (per sh) Past 10 Yrs. Past 5 Yrs. Est'd '14-'16 to '20-'22 Revenues 5.5% 3.0% 4.5% "Cash Flow" 7.5% 6.5% 6.0% Earnings 10.0% 9.5% 6.5% Dividends 7.0% 10.5% 7.5% Book Value 5.5% 5.0% 4.0%					BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to 261,002 customers in 75 cities and 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to 23,940 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 736 employees. BlackRock, Inc. owns 11.7% of out. shares; Vanguard, 9.5%; off. & dir. 1.5%. (4/17 Proxy). Chairman: Lloyd Ross. President & Chief Executive Officer: Robert J. Sprowls. Inc. CA. Address: 630 East Foothill Blvd., San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.					opportunity for growth. No matter how efficiently a utility is run, its profitability is limited to what state regulators allow. Through its ASUS business, which represents about 20% of net income, the company has been involved in taking over the management of water systems of major U.S. military installation. ASUS has already signed several 50-year contracts, and we expect to see more agreements reached in the coming years as privatization in this sector increases.					Timely shares of American States have been doing well, of late. Since our last report three months ago, AWR has increased over 10%. By comparison, the S&P 500 has risen only about 6%. Typically, water stocks have been defensive investments for those seeking income. This pattern has changed, possibly due to the limited amount of shares available in the large-cap sector of the water industry. Indeed, AWR is now trading above our projected 2020-2022 Target Price Range. Also, potential interest rates hikes by the Federal Reserve may now make this group less suitable for conservative accounts.								
Our earnings forecasts are based upon constructive regulatory treatment. As is the protocol in California, a utility petitions state authorities for rate relief every three years. The company's Golden Gate Water subsidiary filed a general case in July of last year. The application is for the years 2019, 2020, and 2021. A final decision is expected by the end of 2018. The California Public Utility Commission has been reasonable in the past, as it has worked with utilities that have had to spend heavily to upgrade antiquated pipeline systems as well as successfully get customers to reduce consumption because of droughts.					The nonregulated business provides					James A. Flood January 12, 2018													
Cal-endar QUARTERLY REVENUES (\$ mill.) Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2014 102.0 115.6 138.3 109.9 465.8 2015 100.9 114.6 133.0 110.1 458.6 2016 93.5 112.0 123.8 106.8 436.1 2017 98.8 113.2 124.4 108.6 445 2018 102 118 135 115 470					Cal-endar EARNINGS PER SHARE^A Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2014 .28 .39 .54 .36 1.57 2015 .32 .41 .56 .31 1.60 2016 .28 .45 .59 .30 1.62 2017 .34 .62 .57 .32 1.85 2018 .39 .48 .60 .38 1.85					Cal-endar QUARTERLY DIVIDENDS PAID^B Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2014 .2025 .2025 .213 .213 .83 2015 .213 .213 .224 .224 .87 2016 .224 .224 .224 .224 .91 2017 .242 .242 .255 .255 .99 2018													
(A) Primary earnings. Excludes nonrecurring gains/(losses): '04, 7c; '05, 13c; '06, 3c; '08, (14c); '10, (23c); '11, 10c. Next earnings report due early February.					(B) Dividends historically paid in early March, June, September, and December. ■ Div'd reinvestment plan available.					(C) In millions, adjusted for split.													
Company's Financial Strength A Stock's Price Stability 75 Price Growth Persistence 75 Earnings Predictability 85																							
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AMERICAN WATER NYSE-AWK				RECENT PRICE	89.08			P/E RATIO	28.1 (Trailing: 30.2 Median: NMF)			RELATIVE P/E RATIO	1.37			DIV'D YLD	2.0%			VALUE LINE			
TIMELINESS	2	Raised	11/17/17	High: 23.7	23.0	25.8	32.8	39.4	45.1	56.2	61.2	85.2	92.4						Target Price Range	2020	2021	2022	
SAFETY	3	New	7/25/08	Low: 16.5	16.2	19.4	25.2	31.3	37.0	41.1	48.4	58.9	70.0							128			
TECHNICAL	3	Lowered	1/12/18	LEGENDS — 0.85 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																			
BETA	.65	(1.00 = Market)		2020-22 PROJECTIONS Ann'l Total High Price Gain Return Low 90 (Nil) 3% 60 (-35%) -6%																			
Insider Decisions				M A M J J A S O N to Buy 0 0 0 0 0 0 0 0 0 0 Options 3 0 7 0 0 1 0 0 2 to Sell 2 0 2 0 0 1 0 0 3																			
Institutional Decisions				1Q2017 2Q2017 3Q2017 to Buy 269 281 262 to Sell 302 291 292 Hld's(000) 160388 158865 160782 Percent shares traded 21 14 7																			
				% TOT. RETURN 12/17 THIS STOCK VL ARITH. INDEX 1 yr. 29.0 15.8 3 yr. 83.1 30.1 5 yr. 175.2 92.5																			
2001	2002	2003	2004	2005	2006	2007 ^E	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC			20-22		
--	--	--	--	--	13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.28	16.78	17.72	18.54	18.95	20.10	Revenues per sh			23.05		
--	--	--	--	--	.65	d.47	2.87	2.89	3.56	3.73	4.27	4.36	4.75	5.13	5.26	5.80	6.20	"Cash Flow" per sh			7.50		
--	--	--	--	--	d.97	d2.14	1.10	1.25	1.53	1.72	2.11	2.06	2.39	2.64	2.62	3.00	3.30	Earnings per sh ^A			4.15		
--	--	--	--	--	--	--	.40	.82	.86	.90	1.21	.84	1.21	1.33	1.47	1.62	1.78	Div'd Decl'd per sh ^B			2.35		
--	--	--	--	--	4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.50	5.33	6.51	7.36	7.20	7.25	Cap'l Spending per sh			6.85		
--	--	--	--	--	23.86	28.39	25.64	22.91	23.59	24.11	25.11	26.52	27.39	28.25	29.24	30.90	32.40	Book Value per sh ^D			39.45		
--	--	--	--	--	160.00	160.00	160.00	174.63	175.00	175.66	176.99	178.25	179.46	178.28	178.10	178.50	179.00	Common Shs Outst'g ^C			187.50		
--	--	--	--	--	--	--	18.9	15.6	14.6	16.8	16.7	19.9	20.0	20.5	27.7	26.8	Avg Ann'l P/E Ratio			18.0			
--	--	--	--	--	--	--	1.14	1.04	.93	1.05	1.06	1.12	1.05	1.03	1.46	1.31	Relative P/E Ratio			1.15			
--	--	--	--	--	--	--	1.9%	4.2%	3.8%	3.1%	3.4%	2.0%	2.5%	2.5%	2.0%	2.0%	Avg Ann'l Div'd Yield			3.1%			
CAPITAL STRUCTURE as of 9/30/17				2214.2 2336.9 2440.7 2710.7 2666.2 2876.9 2901.9 3011.3 3159.0 3302.0 3380 3600 Revenues (\$mill) 4325																			
Total Debt \$7462.0 mil. Due in 5 Yrs \$1698.0 mil.				d342.3 187.2 209.9 267.8 304.9 374.3 369.3 429.8 476.0 468.0 535 590 Net Profit (\$mill) 780																			
LT Debt \$6672.0 mil. LT Interest \$349.0 mil. (55% of Cap'l)				-- 37.4% 37.9% 40.4% 39.5% 40.7% 39.1% 39.4% 39.1% 39.2% 40.0% 21.0% Income Tax Rate 21.0%																			
Leases, Uncapitalized: Annual rentals \$14.0 mil.				50.9% 53.1% 56.9% 56.8% 55.7% 53.9% 52.4% 52.4% 53.7% 52.4% 53.5% 55.0% Long-Term Debt Ratio 54.0%																			
Pension Assets 12/16 \$1443.0 mil.				49.1% 46.9% 43.1% 43.2% 44.2% 46.1% 47.6% 47.4% 46.2% 47.5% 46.5% 45.0% Common Equity Ratio 46.0%																			
Pfd Stock \$9.0 mil. Oblig. \$1864.0 mil. Pfd Div'd \$.5 mill				9245.7 8750.2 9289.0 9561.3 9580.3 9635.5 9940.7 10364 10911 10967 11600 12850 Total Capital (\$mill) 16000																			
Common Stock 178,375,400 shs. as of 10/26/17				9318.0 9991.8 10524 11059 11021 11739 12391 12900 13933 14992 15675 16400 Net Plant (\$mill) 18000																			
MARKET CAP: \$15.9 billion (Large Cap)				NMF 3.7% 3.8% 4.4% 4.8% 5.4% 5.1% 5.5% 5.7% 5.6% 6.0% 6.0% Return on Total Cap'l 6.5%																			
CURRENT POSITION 2015 2016 9/30/17 (\$MILL.)				NMF 4.6% 5.2% 6.5% 7.2% 8.4% 7.8% 8.7% 9.4% 9.0% 9.5% 10.0% Return on Shr. Equity 10.5%																			
Cash Assets 45.0 75.0 93.0				NMF 4.6% 5.2% 6.5% 7.2% 8.4% 7.8% 8.7% 9.4% 9.0% 9.5% 10.0% Return on Com Equity 10.5%																			
Accts Receivable 255.0 269.0 312.0				-- 3.0% 1.8% 2.8% 3.5% 3.6% 4.7% 4.3% 4.7% 4.0% 4.5% 4.5% Retained to Com Eq 4.5%																			
Other 357.0 440.0 455.0				-- 34% 65% 56% 52% 57% 40% 50% 50% 56% 57% 55% All Div'ds to Net Prof 57%																			
Current Assets 657.0 784.0 860.0				BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to over 15 million people in over 47 states and Canada. (Regulated presence in 16 states). Nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 86.5% of 2016 revenues. New Jersey is its largest market accounting for 25.4% of regulated revenues. Has 6,800 employees. The Vanguard Group, owns 9.6% of outstanding shares; BlackRock, Inc., 8.2%; officers & directors, less than 1.0%. (3/17 Proxy). President & CEO: Susan N. Story. Chair.: George MacKenzie. Address: 1025 Laurel Oak Road, Voorhees, NJ 08043. Tel.: 856-346-8200. Internet: www.amwater.com.																			
Accts Payable 126.0 154.0 144.0				<p>American Water Works' prospects are bright. In a December investor presentation, management stated once again that the in-house target for annual growth over the next five-year period for both earnings and dividends is at the high end of the 7% to 10% range. This is well above the projected industry average. Acquisitions and cost controls will likely remain the twin pillars of the utility's operating strategy. The water industry in the United States is very fragmented and inefficient. As a result, there are many small and midsize water authorities that do not have the funds required to make the necessary upgrades to their aging water facilities. Hence, American Water has a continual pipeline of purchases in the works. The company is able to integrate these new additions into its asset base while achieving substantial cost savings. Moreover, regulators are happy (more below) when utilities can provide better service at a lower price. Regulators will probably have a major say in the company's future performance. As the utility continues to expand, its relationship with different state water authorities should become even more important as it will have to file more rate cases. On the positive side of the ledger, American Water's internal (non-GAAP) operating expense margin continues to decline. Indeed, the ratio has decreased from 44% in 2010 to about 34% this year. The goal is 32.5% by 2020-2022. In any case, being able to quantify savings keeps a utility in the good graces of those ruling on rate filings. The capital budget has been raised substantially. Even though the company is already in the midst of a major construction program, management just increased the estimated outlays by about \$1 billion to bring the new expected five-year total to somewhere between \$8.0 billion and \$8.6 billion. American Water's finances are average, and probably will remain so for the next several years. These timely shares will most likely not interest long-term investors. AWK has outperformed the broader market averages, of late. Indeed, the stock recently traded above our projected 2020-2022 Target Price Range.</p>																			
Debt Due 682.0 1423.0 790.0				James A. Flood																			
Other 725.0 815.0 813.0				January 12, 2018																			
Current Liab. 1533.0 2392.0 1747.0				<p>These timely shares will most likely not interest long-term investors. AWK has outperformed the broader market averages, of late. Indeed, the stock recently traded above our projected 2020-2022 Target Price Range.</p>																			
ANNUAL RATES of change (per sh)				<p>Company's Financial Strength B+ Stock's Price Stability 100 Price Growth Persistence 85 Earnings Predictability 90</p>																			
Past 10 Yrs. Past 5 Yrs. Est'd '14-'16 to '20-'22				<p>Revenues 3.0% 3.5% 4.5% "Cash Flow" 23.0% 8.5% 6.5% Earnings -- 11.0% 8.5% Dividends -- 9.0% 10.0% Book Value 1.5% 4.0% 5.5%</p>																			
Cal-endar				<p>QUARTERLY REVENUES (\$ mill.) Full Year Mar.31 Jun.30 Sep.30 Dec.31</p>																			
2014				679.0 754.8 846.1 731.4 3011.3																			
2015				698.0 782.0 896.0 783.0 3159.0																			
2016				743.0 827.0 930.0 802.0 3302.0																			
2017				756.0 844.0 936.0 844 3380																			
2018				770 895 1040 895 3600																			
Cal-endar				<p>EARNINGS PER SHARE ^A Full Year Mar.31 Jun.30 Sep.30 Dec.31</p>																			
2014				.39 .62 .86 .52 2.39																			
2015				.44 .68 .96 .56 2.64																			
2016				.46 .77 .83 .57 2.62																			
2017				.52 .73 1.13 .62 3.00																			
2018				.58 .84 1.19 .69 3.30																			
Cal-endar				<p>QUARTERLY DIVIDENDS PAID ^B Full Year Mar.31 Jun.30 Sep.30 Dec.31</p>																			
2014				.28 .31 .31 .31 1.21																			
2015				.31 .34 .34 .34 1.33																			
2016				.34 .375 .375 .375 1.47																			
2017				.375 .415 .415 .415 1.62																			
2018																							
(A) Diluted earnings. Excludes nonrecurring losses: '08, \$4.62; '09, \$2.63; '11, \$0.07. Discontinued operations: '06, (\$0.04); '11, \$0.03; '12, (\$0.10); '13, (\$0.01). GAAP used as of 2014. Next earnings report due mid-February. Quarterly earnings do not sum in '16 due to rounding. (B) Dividends paid in March, June, September, and December. Div. reinvest. ment available. (C) In millions. (D) Includes intangibles. On 9/30/17: \$1.373 billion, \$7.70/share. (E) Pro forma numbers for '06 & '07.				<p>© 2018 Value Line, Inc. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.</p>																			

AQUA AMERICA NYSE-WTR			RECENT PRICE 38.65	P/E RATIO 27.4 (Trailing: 29.1, Median: 22.0)	RELATIVE P/E RATIO 1.34	DIV'D YLD 2.2%	VALUE LINE	
TIMELINESS 2 Raised 11/17/17	SAFETY 2 Raised 4/20/12	TECHNICAL 3 Lowered 1/5/18	BETA .75 (1.00 = Market)					Target Price Range 2020 2021 2022
2020-22 PROJECTIONS High Price 45 Gain (+15%) Low Price 35 Return (-10%) Nil				Insider Decisions M A M J J A S O N to Buy 0 0 0 0 0 0 0 0 0 0 Options 7 7 0 1 7 0 1 8 0 to Sell 0 0 0 2 0 0 1 0 1				% TOT. RETURN 12/17 THIS STOCK 33.8 VL ARITH. INDEX 15.8 3 yr. 58.1 5 yr. 118.0
Institutional Decisions 1Q2017 2Q2017 3Q2017 to Buy 179 172 187 to Sell 180 155 120 Hld's(000) 103594 104564 105796				Percent shares traded 15 10 5				

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC	20-22
2.16	2.28	2.38	2.78	3.08	3.23	3.61	3.71	3.93	4.21	4.10	4.32	4.32	4.37	4.61	4.62	4.50	4.70	Revenues per sh	6.05
.69	.76	.77	.87	.97	1.01	1.10	1.14	1.29	1.42	1.45	1.51	1.82	1.89	1.87	2.07	2.15	2.25	"Cash Flow" per sh	2.75
.41	.43	.46	.51	.57	.56	.57	.58	.62	.72	.83	.87	1.16	1.20	1.14	1.32	1.36	1.45	Earnings per sh A	1.85
.24	.26	.28	.29	.32	.35	.38	.41	.44	.47	.50	.54	.58	.63	.69	.74	.79	.85	Div'd Decl'd per sh B	1.15
.87	.96	1.06	1.23	1.47	1.64	1.43	1.58	1.66	1.89	1.90	1.98	1.73	1.84	2.07	2.16	2.55	2.45	Cap'l Spending per sh	2.25
3.32	3.49	4.27	4.71	5.04	5.57	5.85	6.26	6.50	6.81	7.21	7.90	8.63	9.27	9.78	10.43	11.10	11.75	Book Value per sh	14.85
142.47	141.49	154.31	158.97	161.21	165.41	166.75	169.21	170.61	172.46	173.60	175.43	177.93	178.59	176.54	177.39	178.00	178.50	Common Shs Outst'g C	180.00
23.6	23.6	24.5	25.1	31.8	34.7	32.0	24.9	23.1	21.1	21.3	21.9	21.2	20.8	23.5	23.9	24.5	24.5	Avg Ann'l P/E Ratio	21.0
1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54	1.34	1.34	1.39	1.19	1.09	1.18	1.26	1.20	1.175	Relative P/E Ratio	1.30
2.5%	2.5%	2.5%	2.3%	1.8%	1.8%	2.1%	2.8%	3.1%	3.1%	2.8%	2.8%	2.4%	2.5%	2.6%	2.3%	2.4%	2.4%	Avg Ann'l Div'd Yield	2.9%

CAPITAL STRUCTURE as of 9/30/17				602.5	627.0	670.5	726.1	712.0	757.8	768.6	779.9	814.2	819.9	800	840	Revenues (\$mill)	1085
Total Debt \$2058.2 mill. Due in 5 Yrs \$430.5 mill.				95.0	97.9	104.4	124.0	144.8	153.1	205.0	213.9	201.8	234.2	245	260	Net Profit (\$mill)	335
LT Debt \$1952.5 mill. LT Interest \$80.0 mill. (50% of Cap'l)				38.9%	39.7%	39.4%	39.2%	32.9%	39.0%	10.0%	10.5%	6.9%	8.2%	9.0%	9.0%	Income Tax Rate	10.0%
Pension Assets-12/16 \$242.4 mill. Oblig. \$308.2 mill.				55.4%	54.1%	55.6%	56.6%	52.7%	52.7%	48.9%	48.5%	50.3%	48.4%	47.0%	49.0%	Long-Term Debt Ratio	51.0%
Pfd Stock None				44.6%	45.9%	44.4%	43.4%	47.3%	47.3%	51.1%	51.5%	49.7%	51.6%	53.0%	51.0%	Common Equity Ratio	49.0%
Common Stock 177,690,598 shares as of 10/20/17				2191.4	2306.6	2495.5	2706.2	2646.8	2929.7	3003.6	3216.0	3469.5	3587.7	3735	4100	Total Capital (\$mill)	5500
MARKET CAP: \$6.9 billion (Large Cap)				2792.8	2997.4	3227.3	3469.3	3612.9	3936.2	4167.3	4402.0	4688.9	5001.6	5080	5275	Net Plant (\$mill)	5800
CURRENT POSITION (\$MILL)				5.9%	5.7%	5.6%	5.9%	6.9%	6.6%	8.0%	7.8%	6.9%	7.6%	7.5%	7.5%	Return on Total Cap'l	7.5%
Cash Assets				9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	12.7%	12.5%	12.5%	Return on Shr. Equity	12.5%
Receivables				9.7%	9.3%	9.4%	10.6%	11.6%	11.0%	13.4%	12.9%	11.7%	12.7%	12.5%	12.5%	Return on Com Equity	12.5%
Inventory (AvgCst)				6.2%	2.8%	2.7%	3.7%	4.6%	4.3%	6.7%	6.1%	4.7%	5.6%	5.5%	5.0%	Retained to Com Eq	4.5%
Other				7.7%	7.0%	7.2%	6.5%	6.0%	6.1%	5.0%	5.2%	6.0%	5.6%	5.9%	5.9%	All Div'd to Net Prof	62%

ANNUAL RATES of change (per sh)				Past 10 Yrs.	Past 5 Yrs.	Est'd '14-'16 to '20-'22
Revenues				4.0%	2.0%	5.0%
"Cash Flow"				7.5%	7.0%	6.0%
Earnings				8.5%	11.0%	7.0%
Dividends				8.0%	8.0%	9.0%
Book Value				7.0%	7.5%	6.5%

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2014	182.7	195.3	210.5	191.4	779.9
2015	190.3	205.8	221.0	197.1	814.2
2016	192.6	203.9	226.6	196.8	819.9
2017	187.8	203.4	215.0	193.8	800
2018	195	215	225	205	840

Cal-endar	EARNINGS PER SHARE A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2014	.24	.31	.38	.27	1.20
2015	.27	.32	.38	.17	1.14
2016	.29	.34	.41	.28	1.32
2017	.28	.34	.43	.31	1.36
2018	.30	.37	.46	.32	1.45

Cal-endar	QUARTERLY DIVIDENDS PAID B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2014	.152	.152	.165	.165	.63
2015	.165	.165	.178	.178	.69
2016	.178	.178	.1913	.1913	.74
2017	.1913	.1913	.2047	.2047	.79
2018					

Our earnings estimates for Aqua America remain unchanged. But we have lowered our revenue forecast for both last year's fourth quarter and 2018 as water sales have been declining. On the positive side, the water utility's operating expenses have been decreasing at a higher rate thanks to lower power and chemical costs. Indeed, we think Aqua's 2017 share net came in at \$1.36, versus 2016's tough \$1.32 comparison. Rate relief granted by several states over the past 12 months will be in effect all of this year. This, plus expected new hikes in Virginia and Indiana, should enable Aqua's share earning to climb a healthy 7%, to \$1.45.

Acquisitions are being made at a modest pace. Due to the fragmentation in the market (there are over 100,000 separate water districts in the U.S.), large-cap water utilities such as Aqua are continuously buying small water entities. Also, most of these authorities do not have the funds required to replace and upgrade their aging network of pipes and waste systems. Not only do the bigger water entities have the funds available for the needed capital outlays, they are also able

to realize significant cost saving because the industry is rife with redundancies. The company's acquisitions made through September of last year combined with organic growth, led to only a 0.8% increase in the customer base. Management has targeted annual growth to be approximately 1.5%-2.0%, so we expect the pace to possibly accelerate here.

Aqua has a healthy balance sheet. Of the nine members in this group, only two merit an "A" Financial Strength rating. This leaves the company with the capacity to borrow to buy more water assets. In addition, Aqua's policy of hardly issuing any new equity is a real positive. With the stock near its all-time high, a new equity offering would probably be well received, as institutional demand for large-cap water utilities stock remains strong.

These shares are timely. Also, even though WTR's long-term total return potential isn't great, it is more attractive than most other mid- and large-cap stocks in this group. So, investors that must own a water utility equity may find WTR of interest.

James A. Flood
January 12, 2018

(A) Diluted eps. Excl. nonrec. gains: '01, 2¢; '02, 4¢; '03, 3¢; '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 9¢; '14, 11¢. May not sum due to rounding. Next earnings report due mid-February.

(B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount).

(C) In millions, adjusted for stock splits.

Company's Financial Strength **A**
 Stock's Price Stability **95**
 Price Growth Persistence **65**
 Earnings Predictability **90**

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CONNECTICUT WATER NDQ-CTWS				RECENT PRICE	P/E RATIO	TRAILING P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE						
TIMELINESS 2 Raised 1/5/18 SAFETY 3 New 1/18/13 TECHNICAL 1 Raised 1/12/18 BETA .65 (1.00 = Market)				57.13	25.1	(Trailing: 27.7 Median: 20.0)	1.22	2.1%	Target Price Range 2020 2021 2022 120 100 80 64 48 32 24 20 16 12 8						
2020-22 PROJECTIONS High Price 65 Gain (+15%) Ann'l Total Return 6% Low Price 45 Gain (-20%) Return -3%				LEGENDS — 1.30 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession				Insider Decisions M A M J J A S O N to Buy 0 0 0 0 0 0 0 0 0 0 Options 1 0 0 0 0 0 0 1 0 to Sell 0 0 0 0 0 1 0 0 0				Institutional Decisions 1Q2017 2Q2017 3Q2017 to Buy 48 55 54 to Sell 56 44 45 Hld's(000) 6170 6289 6356 Percent shares traded 12 8 4			
CAPITAL STRUCTURE as of 9/30/17 Total Debt \$263.2 mill. Due in 5 Yrs \$19.8 mill. LT Debt \$255.2 mill. LT Interest \$8.8 mill. (47% of Cap'l)				Leases, Uncapitalized: Annual rentals \$.3 mill. Pension Assets-12/16 \$62.7 mill. Oblig. \$79.3 mill. Pfd Stock \$0.8 mill. Pfd Divd NMF Common Stock 12,068,299 shs.				MARKET CAP: \$700 million (Small Cap)				CURRENT POSITION (\$MILL.) Cash Assets .7 1.6 8.3 Accounts Receivable 11.0 13.0 15.6 Other 15.3 14.8 23.2 Current Assets 27.0 29.4 47.1 Accts Payable 11.9 13.1 8.6 Debt Due 2.8 4.9 8.0 Other 22.2 37.1 23.2 Current Liab. 36.9 55.1 39.8			
ANNUAL RATES of change (per sh) Past 10 Yrs. Past 5 Yrs. Est'd '14-'16 to '20-'22 Revenues 4.0% 3.0% 7.0% "Cash Flow" 6.5% 9.5% 4.5% Earnings 8.0% 12.0% 6.5% Dividends 2.5% 3.0% 5.5% Book Value 6.0% 9.0% 5.0%				CONNECTICUT WATER SERVICE, INC. is a non-operating holding company, whose income is derived from earnings of its wholly-owned subsidiary companies (regulated water utilities). In 2016, 95% of net income was derived from these activities. Provides water services to 440,000 people in 79 municipalities throughout Connecticut and Maine. Acquired The Maine Water Company, January, 2012; Biddeford and Saco Water, December, 2012; Heritage Village, February, 2017. Inc.: Conn.. Has 266 employees. Chairman/President/Chief Executive Officer: Eric W. Thornburg. Officers and directors own 2.5% of the common stock; BlackRock, Inc., 7.2% (4/17 proxy). Address: 93 West Main Street, Clinton, CT 06413. Telephone: (860) 669-8636. Internet: www.ctwater.com.				CONNECTICUT WATER SERVICE reported third-quarter financial results in line with our expectations. Revenues of \$31.8 million rose 8%, year over year, while earnings of \$0.90 per share logged a similar advance. There were several noteworthy highlights during the September period. These consist of the completion and inclusion of the Heritage Village Water and Avon Water acquisitions, which added about 9,500 customers and \$2.4 million to the top line. Moreover, Connecticut finalized a \$30 million water treatment facility upgrade.							
Cal-endar 2014 20.3 25.4 27.6 20.7 94.0 2015 20.0 26.6 28.4 21.0 96.0 2016 21.6 26.1 29.5 21.5 98.7 2017 22.5 27.9 31.8 23.8 106 2018 25.5 30.5 35.0 26.0 117				Cal-endar 2014 .27 .67 .76 .22 1.92 2015 .28 .77 .79 .20 2.04 2016 .28 .89 .84 .07 2.08 2017 .36 .73 .90 .21 2.20 2018 .37 .80 .93 .30 2.40				Cal-endar 2014 .2475 .2475 .2575 .2575 1.01 2015 .2575 .2575 .2675 .2675 1.05 2016 .2675 .2825 .2825 .2825 1.12 2017 .2825 .2975 .2975 .2975 1.18 2018							
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(A) Diluted earnings. Next earnings report due late February.
 (B) Dividends historically paid in mid-March, June, September, and December. ■ Div'd reinvestment plan available.
 (C) In millions.
 (D) Includes intangibles. In 2016: \$30.4 million/\$2.70 a share.

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Company's Financial Strength B+
 Stock's Price Stability 90
 Price Growth Persistence 50
 Earnings Predictability 85

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next decade, as the push to revamp outdated water pipes and mains continues to be the primary focus for most water utilities. Improvements in water treatment plants are also in the cards. Over the course of this year, we believe CTWS will match its 2017 spending budget, at around \$66 million. As always, to help fund (or recoup) these investments, we expect periodic rate filings to come across the public utilities commission's desk.

We have modestly raised our 2018 top-and bottom-line estimates. Due to the abovementioned rate approval and wider customer base, we are adding \$2 million and \$0.05 to this year's revenue and earnings forecasts, to \$117 million and \$2.40 a share, respectively. Meanwhile, our financial projections for 2017 are unchanged.

This issue ought to appeal primarily to those with a short-term strategy (Timeliness: 2). On the other hand, shares of CTWS are already trading well within our 3- to 5-year Target Price Range. Therefore, we recommend longer-term accounts wait on the sidelines for a more attractive entry point.

Nicholas P. Patrikis
 January 12, 2018

MIDDLESEX WATER NDQ-MSEX				RECENT PRICE	39.09	P/E RATIO	25.9	(Trailing: 31.3 Median: 20.0)	RELATIVE P/E RATIO	1.26	DIV'D YLD	2.3%	VALUE LINE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
TIMELINESS 4 Lowered 7/7/17	High: 20.5	20.2	19.8	17.9	19.3	19.4	19.6	22.5	23.7	28.0	44.5	46.7	Target Price Range 2020 2021 2022																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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LLC 20-22</th> </tr> <tr> <td>5.87</td><td>5.98</td><td>6.12</td><td>6.25</td><td>6.44</td><td>6.16</td><td>6.50</td><td>6.79</td><td>6.75</td><td>6.60</td><td>6.50</td><td>6.98</td><td>7.19</td><td>7.26</td><td>7.77</td><td>8.16</td><td>8.10</td><td>8.55</td><td>Revenues per sh</td><td>9.40</td> </tr> <tr> <td>1.18</td><td>1.20</td><td>1.15</td><td>1.28</td><td>1.33</td><td>1.33</td><td>1.49</td><td>1.53</td><td>1.40</td><td>1.55</td><td>1.46</td><td>1.56</td><td>1.72</td><td>1.84</td><td>1.97</td><td>2.17</td><td>2.25</td><td>2.55</td><td>"Cash Flow" per sh</td><td>3.15</td> </tr> <tr> <td>.66</td><td>.73</td><td>.61</td><td>.73</td><td>.71</td><td>.82</td><td>.87</td><td>.89</td><td>.72</td><td>.96</td><td>.84</td><td>.90</td><td>1.03</td><td>1.13</td><td>1.22</td><td>1.38</td><td>1.40</td><td>1.65</td><td>Earnings per sh A</td><td>2.10</td> </tr> <tr> <td>.62</td><td>.63</td><td>.65</td><td>.66</td><td>.67</td><td>.68</td><td>.69</td><td>.70</td><td>.71</td><td>.72</td><td>.73</td><td>.74</td><td>.75</td><td>.76</td><td>.78</td><td>.81</td><td>.86</td><td>.91</td><td>Div'd Decl'd per sh B</td><td>1.06</td> </tr> <tr> <td>1.25</td><td>1.59</td><td>1.87</td><td>2.54</td><td>2.18</td><td>2.31</td><td>1.66</td><td>2.12</td><td>1.49</td><td>1.90</td><td>1.50</td><td>1.36</td><td>1.26</td><td>1.40</td><td>1.59</td><td>2.91</td><td>1.80</td><td>1.90</td><td>Cap'l Spending per sh</td><td>2.05</td> </tr> <tr> <td>7.11</td><td>7.39</td><td>7.60</td><td>8.02</td><td>8.26</td><td>9.52</td><td>10.05</td><td>10.03</td><td>10.33</td><td>11.13</td><td>11.27</td><td>11.48</td><td>11.82</td><td>12.24</td><td>12.74</td><td>13.40</td><td>13.95</td><td>14.65</td><td>Book Value per sh</td><td>16.75</td> </tr> <tr> <td>10.17</td><td>10.36</td><td>10.48</td><td>11.36</td><td>11.58</td><td>13.17</td><td>13.25</td><td>13.40</td><td>13.52</td><td>15.57</td><td>15.70</td><td>15.82</td><td>15.96</td><td>16.12</td><td>16.23</td><td>16.30</td><td>16.50</td><td>16.75</td><td>Common Shs Outst'g C</td><td>17.00</td> </tr> <tr> <td>24.6</td><td>23.5</td><td>30.0</td><td>26.4</td><td>27.4</td><td>22.7</td><td>21.6</td><td>19.8</td><td>21.0</td><td>17.8</td><td>21.7</td><td>20.8</td><td>19.7</td><td>18.5</td><td>19.1</td><td>25.6</td><td>28.0</td><td></td><td>Avg Ann'l P/E Ratio</td><td>21.0</td> </tr> <tr> <td>1.26</td><td>1.28</td><td>1.71</td><td>1.39</td><td>1.46</td><td>1.23</td><td>1.15</td><td>1.19</td><td>1.40</td><td>1.13</td><td>1.36</td><td>1.32</td><td>1.11</td><td>.97</td><td>.96</td><td>1.35</td><td>1.37</td><td></td><td>Relative P/E Ratio</td><td>1.30</td> </tr> <tr> <td>3.8%</td><td>3.7%</td><td>3.5%</td><td>3.4%</td><td>3.5%</td><td>3.7%</td><td>3.7%</td><td>4.0%</td><td>4.7%</td><td>4.2%</td><td>4.0%</td><td>4.0%</td><td>3.7%</td><td>3.7%</td><td>3.3%</td><td>2.3%</td><td>2.2%</td><td></td><td>Avg Ann'l Div'd Yield</td><td>2.5%</td> </tr> <tr> <td colspan="4">CAPITAL STRUCTURE as of 9/30/17</td> <td>86.1</td><td>91.0</td><td>91.2</td><td>102.7</td><td>102.1</td><td>110.4</td><td>114.8</td><td>117.1</td><td>126.0</td><td>132.9</td><td>134</td><td>143</td><td>143</td><td>160</td><td>Revenues (\$mill)</td><td>160</td> </tr> <tr> <td colspan="4">Total Debt \$166.8 mill. Due in 5 Yrs \$32.1 mill.</td> <td>11.8</td><td>12.2</td><td>10.0</td><td>14.3</td><td>13.4</td><td>14.4</td><td>16.6</td><td>18.4</td><td>20.0</td><td>22.7</td><td>23.0</td><td>27.5</td><td>27.5</td><td>35.5</td><td>Net Profit (\$mill)</td><td>35.5</td> </tr> <tr> <td colspan="4">LT Debt \$135.8 mill. LT Interest \$6.0 mill.</td> <td>32.6%</td><td>33.2%</td><td>34.1%</td><td>32.1%</td><td>32.7%</td><td>33.9%</td><td>34.1%</td><td>35.0%</td><td>34.5%</td><td>34.0%</td><td>32.0%</td><td>21.0%</td><td>21.0%</td><td>21.0%</td><td>Income Tax Rate</td><td>21.0%</td> </tr> <tr> <td colspan="4">(Total interest coverage: 10.9x)</td> <td>--</td><td>--</td><td>--</td><td>6.8%</td><td>6.1%</td><td>3.4%</td><td>1.9%</td><td>1.7%</td><td>1.9%</td><td>2.7%</td><td>2.0%</td><td>2.0%</td><td>2.0%</td><td>AFUDC % to Net Profit</td><td>2.5%</td> </tr> <tr> <td colspan="4">(38% of Cap'l)</td> <td>49.0%</td><td>45.6%</td><td>46.6%</td><td>43.1%</td><td>42.3%</td><td>41.5%</td><td>40.4%</td><td>40.5%</td><td>39.4%</td><td>37.9%</td><td>37.5%</td><td>37.0%</td><td>37.0%</td><td>37.0%</td><td>Long-Term Debt Ratio</td><td>37.0%</td> </tr> <tr> <td colspan="4">Pension Assets-12/16 \$59.4 mill.</td> <td>49.6%</td><td>51.8%</td><td>52.1%</td><td>55.8%</td><td>56.6%</td><td>57.4%</td><td>58.7%</td><td>58.8%</td><td>59.8%</td><td>61.5%</td><td>62.0%</td><td>62.5%</td><td>62.5%</td><td>62.5%</td><td>Common Equity Ratio</td><td>62.5%</td> </tr> <tr> <td colspan="4">Oblig. \$78.6 mill.</td> <td>268.8</td><td>259.4</td><td>267.9</td><td>310.5</td><td>312.5</td><td>316.5</td><td>321.4</td><td>335.8</td><td>345.4</td><td>355.4</td><td>370</td><td>390</td><td>390</td><td>460</td><td>Total Capital (\$mill)</td><td>460</td> </tr> <tr> <td colspan="4">Pfd Stock \$2.4 mill. Pfd Div'd: \$.1 mill.</td> <td>333.9</td><td>366.3</td><td>376.5</td><td>405.9</td><td>422.2</td><td>435.2</td><td>446.5</td><td>465.4</td><td>481.9</td><td>517.8</td><td>525</td><td>535</td><td>535</td><td>575</td><td>Net Plant (\$mill)</td><td>575</td> </tr> <tr> <td colspan="4">Common Stock 16,346,036 shs. as of 10/31/17</td> <td>5.6%</td><td>5.8%</td><td>5.0%</td><td>5.7%</td><td>5.2%</td><td>5.4%</td><td>5.9%</td><td>6.3%</td><td>6.6%</td><td>7.1%</td><td>7.0%</td><td>7.5%</td><td>7.0%</td><td>7.5%</td><td>7.5%</td><td>Return on Total Cap'l</td><td>8.5%</td> </tr> <tr> <td colspan="4">MARKET CAP: \$650 million (Small Cap)</td> <td>8.6%</td><td>8.6%</td><td>7.0%</td><td>8.1%</td><td>7.5%</td><td>7.8%</td><td>8.7%</td><td>9.2%</td><td>9.6%</td><td>10.3%</td><td>10.0%</td><td>11.5%</td><td>11.5%</td><td>11.5%</td><td>11.5%</td><td>Return on Shr. Equity</td><td>12.5%</td> </tr> <tr> <td colspan="4">CURRENT POSITION (SMILL)</td> <td>8.7%</td><td>8.9%</td><td>7.0%</td><td>8.2%</td><td>7.5%</td><td>7.8%</td><td>8.7%</td><td>9.3%</td><td>9.6%</td><td>10.3%</td><td>10.0%</td><td>11.5%</td><td>11.5%</td><td>11.5%</td><td>11.5%</td><td>Return on Com Equity</td><td>12.5%</td> </tr> <tr> <td colspan="4">Cash Assets</td> <td>1.8%</td><td>2.0%</td><td>.1%</td><td>2.1%</td><td>1.0%</td><td>1.4%</td><td>2.4%</td><td>3.1%</td><td>3.5%</td><td>4.3%</td><td>4.0%</td><td>5.0%</td><td>5.0%</td><td>5.0%</td><td>5.0%</td><td>Retained to Com Eq</td><td>6.0%</td> </tr> <tr> <td colspan="4">Other</td> <td>79%</td><td>78%</td><td>98%</td><td>75%</td><td>87%</td><td>83%</td><td>73%</td><td>67%</td><td>63%</td><td>58%</td><td>61%</td><td>55%</td><td>61%</td><td>55%</td><td>55%</td><td>All Div'ds to Net Prof</td><td>50%</td> </tr> <tr> <td colspan="4">Current Assets</td> <td colspan="14">BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 61,000 retail customers, primarily in Middlesex County, New Jersey. In 2016, the Middlesex System accounted for 60% of operating revenues. At 12/31/16, the company had 309 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.5% of the common stock; BlackRock Institutional Trust Co., 7.2% (4/17 proxy). Add.: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.</td> </tr> <tr> <td colspan="4">Accts Payable</td> <td colspan="14">Middlesex Water Company's battle with mother nature has yet to subside. The story hasn't changed much over the past three months, as weather-related disruptions took a toll on its top line once again. Operating in the Northeast region of the U.S. leaves MSEX vulnerable to extremely volatile weather conditions, which can noticeably impact customer water consumption. Specifically, its Middlesex New Jersey operations saw revenues contract \$1.8 million, year over year, due to softer consumption, while its Delaware utility system was essentially flat, thanks to contributions from added residential customers during the period. Overall, Middlesex generated \$36.2 million in revenues for the September period, \$1.6 million less than last year's haul. This has spurred us to trim \$3.0 million off our 2017 top-line forecast, to \$134 million.</td> </tr> <tr> <td colspan="4">Debt Due</td> <td colspan="14">The outlook for profit growth in 2018 is good. Operating margins ought to remain relatively steady, with few changes to the cost structure expected. Meantime, a reduced income tax rate (new tax act and various investment spending deductions) is the main driver behind our improved perspective. All told, we look for earnings to expand 18% this year, to \$1.65 a share (+0.05), on revenues of \$143 million (-\$2.0 million). Long-term, infrastructure upgrades ought to bear fruit. Approximately \$12 million per year (for the next three years) is earmarked for the replacement of aging water mains, valves, and other infrastructure upgrades.</td> </tr> <tr> <td colspan="4">Other</td> <td colspan="14">The company boosted its quarterly dividend payout by about 6%, to \$0.224 per share. Shareholders have enjoyed 45 years of consecutive dividend increases, and we don't think this streak will be broken anytime soon. At present, MSEX shares offer a yield that fractionally outpaces the average of all dividend paying stocks in <i>The Value Line Investment Survey</i>.</td> </tr> <tr> <td colspan="4">Current Liab.</td> <td colspan="14">This issue is still a subpar selection for relative year-ahead price performance (Timeliness: 4). What's more, total return potential over the pull to 2020-2022 is nothing to write home about. Thus, we think investors can find better options elsewhere, at this juncture.</td> </tr> <tr> <td colspan="4">ANNUAL RATES of change (per sh)</td> <td colspan="14">Nicholas P. Patrikis <i>January 12, 2018</i></td> </tr> <tr> <td colspan="4">Past 10 Yrs.</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Past 5 Yrs.</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Est'd '14-'16 to '20-'22</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Revenues</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">"Cash Flow"</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Earnings</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Dividends</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Book Value</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Cal-endar</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">QUARTERLY REVENUES (\$ mill.)</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Mar.31 Jun. 30 Sep. 30 Dec. 31</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Full Year</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2014</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2015</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2016</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2017</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2018</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Cal-endar</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">EARNINGS PER SHARE A</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Mar.31 Jun. 30 Sep. 30 Dec. 31</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Full Year</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2014</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2015</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2016</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2017</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2018</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Cal-endar</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">QUARTERLY DIVIDENDS PAID B</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Mar.31 Jun.30 Sep.30 Dec.31</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">Full Year</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2014</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2015</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2016</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2017</td> <td colspan="14"></td> </tr> <tr> <td colspan="4">2018</td> <td colspan="14"></td> </tr> </table>														2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	© VALUE LINE PUB. LLC 20-22		5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.26	7.77	8.16	8.10	8.55	Revenues per sh	9.40	1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.56	1.72	1.84	1.97	2.17	2.25	2.55	"Cash Flow" per sh	3.15	.66	.73	.61	.73	.71	.82	.87	.89	.72	.96	.84	.90	1.03	1.13	1.22	1.38	1.40	1.65	Earnings per sh A	2.10	.62	.63	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.78	.81	.86	.91	Div'd Decl'd per sh B	1.06	1.25	1.59	1.87	2.54	2.18	2.31	1.66	2.12	1.49	1.90	1.50	1.36	1.26	1.40	1.59	2.91	1.80	1.90	Cap'l Spending per sh	2.05	7.11	7.39	7.60	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.24	12.74	13.40	13.95	14.65	Book Value per sh	16.75	10.17	10.36	10.48	11.36	11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	15.96	16.12	16.23	16.30	16.50	16.75	Common Shs Outst'g C	17.00	24.6	23.5	30.0	26.4	27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.1	25.6	28.0		Avg Ann'l P/E Ratio	21.0	1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.97	.96	1.35	1.37		Relative P/E Ratio	1.30	3.8%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	3.7%	3.7%	3.3%	2.3%	2.2%		Avg Ann'l Div'd Yield	2.5%	CAPITAL STRUCTURE as of 9/30/17				86.1	91.0	91.2	102.7	102.1	110.4	114.8	117.1	126.0	132.9	134	143	143	160	Revenues (\$mill)	160	Total Debt \$166.8 mill. Due in 5 Yrs \$32.1 mill.				11.8	12.2	10.0	14.3	13.4	14.4	16.6	18.4	20.0	22.7	23.0	27.5	27.5	35.5	Net Profit (\$mill)	35.5	LT Debt \$135.8 mill. LT Interest \$6.0 mill.				32.6%	33.2%	34.1%	32.1%	32.7%	33.9%	34.1%	35.0%	34.5%	34.0%	32.0%	21.0%	21.0%	21.0%	Income Tax Rate	21.0%	(Total interest coverage: 10.9x)				--	--	--	6.8%	6.1%	3.4%	1.9%	1.7%	1.9%	2.7%	2.0%	2.0%	2.0%	AFUDC % to Net Profit	2.5%	(38% of Cap'l)				49.0%	45.6%	46.6%	43.1%	42.3%	41.5%	40.4%	40.5%	39.4%	37.9%	37.5%	37.0%	37.0%	37.0%	Long-Term Debt Ratio	37.0%	Pension Assets-12/16 \$59.4 mill.				49.6%	51.8%	52.1%	55.8%	56.6%	57.4%	58.7%	58.8%	59.8%	61.5%	62.0%	62.5%	62.5%	62.5%	Common Equity Ratio	62.5%	Oblig. \$78.6 mill.				268.8	259.4	267.9	310.5	312.5	316.5	321.4	335.8	345.4	355.4	370	390	390	460	Total Capital (\$mill)	460	Pfd Stock \$2.4 mill. Pfd Div'd: \$.1 mill.				333.9	366.3	376.5	405.9	422.2	435.2	446.5	465.4	481.9	517.8	525	535	535	575	Net Plant (\$mill)	575	Common Stock 16,346,036 shs. as of 10/31/17				5.6%	5.8%	5.0%	5.7%	5.2%	5.4%	5.9%	6.3%	6.6%	7.1%	7.0%	7.5%	7.0%	7.5%	7.5%	Return on Total Cap'l	8.5%	MARKET CAP: \$650 million (Small Cap)				8.6%	8.6%	7.0%	8.1%	7.5%	7.8%	8.7%	9.2%	9.6%	10.3%	10.0%	11.5%	11.5%	11.5%	11.5%	Return on Shr. Equity	12.5%	CURRENT POSITION (SMILL)				8.7%	8.9%	7.0%	8.2%	7.5%	7.8%	8.7%	9.3%	9.6%	10.3%	10.0%	11.5%	11.5%	11.5%	11.5%	Return on Com Equity	12.5%	Cash Assets				1.8%	2.0%	.1%	2.1%	1.0%	1.4%	2.4%	3.1%	3.5%	4.3%	4.0%	5.0%	5.0%	5.0%	5.0%	Retained to Com Eq	6.0%	Other				79%	78%	98%	75%	87%	83%	73%	67%	63%	58%	61%	55%	61%	55%	55%	All Div'ds to Net Prof	50%	Current Assets				BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 61,000 retail customers, primarily in Middlesex County, New Jersey. In 2016, the Middlesex System accounted for 60% of operating revenues. At 12/31/16, the company had 309 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.5% of the common stock; BlackRock Institutional Trust Co., 7.2% (4/17 proxy). Add.: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.														Accts Payable				Middlesex Water Company's battle with mother nature has yet to subside. The story hasn't changed much over the past three months, as weather-related disruptions took a toll on its top line once again. Operating in the Northeast region of the U.S. leaves MSEX vulnerable to extremely volatile weather conditions, which can noticeably impact customer water consumption. Specifically, its Middlesex New Jersey operations saw revenues contract \$1.8 million, year over year, due to softer consumption, while its Delaware utility system was essentially flat, thanks to contributions from added residential customers during the period. Overall, Middlesex generated \$36.2 million in revenues for the September period, \$1.6 million less than last year's haul. This has spurred us to trim \$3.0 million off our 2017 top-line forecast, to \$134 million.														Debt Due				The outlook for profit growth in 2018 is good. Operating margins ought to remain relatively steady, with few changes to the cost structure expected. Meantime, a reduced income tax rate (new tax act and various investment spending deductions) is the main driver behind our improved perspective. All told, we look for earnings to expand 18% this year, to \$1.65 a share (+0.05), on revenues of \$143 million (-\$2.0 million). Long-term, infrastructure upgrades ought to bear fruit. Approximately \$12 million per year (for the next three years) is earmarked for the replacement of aging water mains, valves, and other infrastructure upgrades.														Other				The company boosted its quarterly dividend payout by about 6%, to \$0.224 per share. Shareholders have enjoyed 45 years of consecutive dividend increases, and we don't think this streak will be broken anytime soon. At present, MSEX shares offer a yield that fractionally outpaces the average of all dividend paying stocks in <i>The Value Line Investment Survey</i> .														Current Liab.				This issue is still a subpar selection for relative year-ahead price performance (Timeliness: 4). What's more, total return potential over the pull to 2020-2022 is nothing to write home about. Thus, we think investors can find better options elsewhere, at this juncture.														ANNUAL RATES of change (per sh)				Nicholas P. Patrikis <i>January 12, 2018</i>														Past 10 Yrs.																		Past 5 Yrs.																		Est'd '14-'16 to '20-'22																		Revenues																		"Cash Flow"																		Earnings																		Dividends																		Book Value																		Cal-endar																		QUARTERLY REVENUES (\$ mill.)																		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24.6	23.5	30.0	26.4	27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	19.7	18.5	19.1	25.6	28.0		Avg Ann'l P/E Ratio	21.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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(Total interest coverage: 10.9x)				--	--	--	6.8%	6.1%	3.4%	1.9%	1.7%	1.9%	2.7%	2.0%	2.0%	2.0%	AFUDC % to Net Profit	2.5%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
(38% of Cap'l)				49.0%	45.6%	46.6%	43.1%	42.3%	41.5%	40.4%	40.5%	39.4%	37.9%	37.5%	37.0%	37.0%	37.0%	Long-Term Debt Ratio	37.0%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Pension Assets-12/16 \$59.4 mill.				49.6%	51.8%	52.1%	55.8%	56.6%	57.4%	58.7%	58.8%	59.8%	61.5%	62.0%	62.5%	62.5%	62.5%	Common Equity Ratio	62.5%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Oblig. \$78.6 mill.				268.8	259.4	267.9	310.5	312.5	316.5	321.4	335.8	345.4	355.4	370	390	390	460	Total Capital (\$mill)	460																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Pfd Stock \$2.4 mill. Pfd Div'd: \$.1 mill.				333.9	366.3	376.5	405.9	422.2	435.2	446.5	465.4	481.9	517.8	525	535	535	575	Net Plant (\$mill)	575																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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Current Assets				BUSINESS: Middlesex Water Company engages in the ownership and operation of regulated water utility systems in New Jersey, Delaware, and Pennsylvania. It also operates water and wastewater systems under contract on behalf of municipal and private clients in NJ and DE. Its Middlesex System provides water services to 61,000 retail customers, primarily in Middlesex County, New Jersey. In 2016, the Middlesex System accounted for 60% of operating revenues. At 12/31/16, the company had 309 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.5% of the common stock; BlackRock Institutional Trust Co., 7.2% (4/17 proxy). Add.: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Accts Payable				Middlesex Water Company's battle with mother nature has yet to subside. The story hasn't changed much over the past three months, as weather-related disruptions took a toll on its top line once again. Operating in the Northeast region of the U.S. leaves MSEX vulnerable to extremely volatile weather conditions, which can noticeably impact customer water consumption. Specifically, its Middlesex New Jersey operations saw revenues contract \$1.8 million, year over year, due to softer consumption, while its Delaware utility system was essentially flat, thanks to contributions from added residential customers during the period. Overall, Middlesex generated \$36.2 million in revenues for the September period, \$1.6 million less than last year's haul. This has spurred us to trim \$3.0 million off our 2017 top-line forecast, to \$134 million.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Debt Due				The outlook for profit growth in 2018 is good. Operating margins ought to remain relatively steady, with few changes to the cost structure expected. Meantime, a reduced income tax rate (new tax act and various investment spending deductions) is the main driver behind our improved perspective. All told, we look for earnings to expand 18% this year, to \$1.65 a share (+0.05), on revenues of \$143 million (-\$2.0 million). Long-term, infrastructure upgrades ought to bear fruit. Approximately \$12 million per year (for the next three years) is earmarked for the replacement of aging water mains, valves, and other infrastructure upgrades.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Other				The company boosted its quarterly dividend payout by about 6%, to \$0.224 per share. Shareholders have enjoyed 45 years of consecutive dividend increases, and we don't think this streak will be broken anytime soon. At present, MSEX shares offer a yield that fractionally outpaces the average of all dividend paying stocks in <i>The Value Line Investment Survey</i> .																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Current Liab.				This issue is still a subpar selection for relative year-ahead price performance (Timeliness: 4). What's more, total return potential over the pull to 2020-2022 is nothing to write home about. Thus, we think investors can find better options elsewhere, at this juncture.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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(A) Diluted earnings. Next earnings report due early February.

(B) Dividends historically paid in mid-Feb., May, Aug., and November. ■ Div'd reinvestment plan available.

(C) In millions, adjusted for split.

Company's Financial Strength	B++
Stock's Price Stability	70
Price Growth Persistence	40
Earnings Predictability	80

SJW GROUP NYSE-SJW				RECENT PRICE	P/E RATIO	Trailing: 23.6 Median: 23.0	RELATIVE P/E RATIO	DIV'D YLD	1.4%	VALUE LINE											
TIMELINESS 3	Raised 6/30/17	High: 45.3	43.0	35.1	30.4	28.2	26.8	26.9	30.1	33.7	35.7	56.9	69.3	Target Price Range 2020 2021 2022 120 100 80 64 48							
SAFETY 3	New 4/22/11	Low: 21.2	27.7	20.0	18.2	21.6	20.9	22.6	24.5	25.5	27.5	28.6	45.4								
TECHNICAL 2	Raised 1/5/18	LEGENDS — 1.50 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 3/06 Options: Yes Shaded area indicates recession																			
BETA .70	(1.00 = Market)	2020-22 PROJECTIONS Ann'l Total High Price Gain Return Low 90 (+40%) 11% 60 (-5%) 1%																			
Insider Decisions		to Buy 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 to Sell 6 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0										% TOT. RETURN 12/17 THIS STOCK VL ARITH. 1 yr. 15.9 15.8 3 yr. 111.7 30.1 5 yr. 169.8 92.5									
Institutional Decisions		to Buy 83 67 74 to Sell 59 73 56 Hld's(000) 10726 10969 12340																			
2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018														© VALUE LINE PUB. LLC 20-22							
7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	13.73	15.76	14.97	16.61	18.10	17.95	Revenues per sh	21.10		
1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.42	3.86	4.76	4.60	4.90	"Cash Flow" per sh	5.65		
.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	1.12	2.54	1.85	2.57	2.60	2.85	Earnings per sh A	3.45		
.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	.78	.81	1.04	.93	Div'd Decl'd per sh B	1.18		
2.63	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	4.68	5.02	5.24	6.95	6.00	5.50	Cap'l Spending per sh	5.00		
8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.92	17.75	18.83	20.61	21.65	22.05	Book Value per sh	24.60		
18.27	18.27	18.27	18.27	18.27	18.28	18.36	18.18	18.50	18.55	18.59	18.67	20.17	20.29	20.38	20.46	21.00	22.00	Common Shs Outst'g C	23.00		
18.5	17.3	15.4	19.6	19.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	24.3	11.2	16.6	15.7	20.7		Avg Ann'l P/E Ratio	22.0		
.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.37	.59	.84	.83	1.01		Relative P/E Ratio	1.40		
3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.9%	3.0%	2.7%	2.6%	2.5%	2.0%	1.9%		Avg Ann'l Div'd Yield	1.6%		
CAPITAL STRUCTURE as of 9/30/17																					
Total Debt \$431.0 mill. Due in 5 Yrs \$14.3 mill.																		Revenues (\$mill)		485	
LT Debt \$431.0 mill. LT Interest \$20.0 mill. (49% of Cap'l)																		Net Profit (\$mill)		69.0	
Leases, Uncapitalized: Annual rentals \$6.6 mill.																		Income Tax Rate		21.0%	
Pension Assets-12/16 \$113.9 mill. Oblig. \$174.1 mill.																		AFUDC % to Net Profit		1.5%	
Pfd Stock None.																		Long-Term Debt Ratio		48.0%	
Common Stock 20,520,856 shs.																		Common Equity Ratio		52.0%	
MARKET CAP: \$1.3 billion (Mid Cap)																		Total Capital (\$mill)		1090	
CURRENT POSITION 2015 2016 9/30/17 (\$MILL.)																		Net Plant (\$mill)		1325	
Cash Assets 5.2 25.3 7.6																		Return on Total Cap'l		8.5%	
Accts Receivable 16.4 16.4 63.0																		Return on Shr. Equity		14.0%	
Other 51.8 57.9 16.5																		Return on Com Equity		14.0%	
Current Assets 73.4 99.6 87.1																		Retained to Com Eq		9.0%	
Accts Payable 16.2 18.7 30.7																		All Div's to Net Prof		34%	
Debt Due 38.1 14.3 --																					
Other 25.3 30.6 59.7																					
Current Liab. 79.6 63.6 90.4																					
ANNUAL RATES Past Past Est'd '14-'16 of change (per sh) 10 Yrs. 5 Yrs. to '20-'22																					
Revenues 5.0% 5.5% 5.0%																					
"Cash Flow" 7.0% 12.0% 4.5%																					
Earnings 8.0% 20.5% 7.0%																					
Dividends 4.0% 3.0% 7.0%																					
Book Value 5.5% 6.5% 4.5%																					
Cal-endar				QUARTERLY REVENUES (\$ mill.)												Full Year					
Mar.31 Jun.30 Sep.30 Dec.31																					
2014				54.6	70.4	125.4	69.3	319.7							319.7						
2015				62.1	72.4	83.0	87.6	305.1							305.1						
2016				61.1	86.9	112.3	79.4	339.7							339.7						
2017				69.0	102.1	124.6	84.3	380							380						
2018				75.0	105	125	90.0	395							395						
Cal-endar				EARNINGS PER SHARE A												Full Year					
Mar.31 Jun.30 Sep.30 Dec.31																					
2014				.04	.34	1.88	.28	2.54							2.54						
2015				.23	.36	.46	.80	1.85							1.85						
2016				.16	.82	.92	.67	2.57							2.57						
2017				.18	.90	.94	.58	2.60							2.60						
2018				.27	.90	1.00	.68	2.85							2.85						
Cal-endar				QUARTERLY DIVIDENDS PAID B												Full Year					
Mar.31 Jun.30 Sep.30 Dec.31																					
2014				.1875	.1875	.1875	.1875	.75							.75						
2015				.1950	.1950	.1950	.1950	.78							.78						
2016				.2025	.2025	.2025	.2025	.81							.81						
2017				.2175	.2175	.2175	.3875	1.04							1.04						
2018																					

SJW Group has finalized the sale of its wholly-owned subsidiary, Texas Water Alliance Limited. Early last year, SJW entered into an agreement with the Guadalupe-Blanco River Authority for total consideration of \$31 million. SJW netted cash proceeds of \$23.5 million, excluding a \$3 million holdback fee (due 2021). As a result of the completed sale and subsequent proceeds, the board of directors paid a special dividend of \$0.17 a share to stockholders on record as of November 29, 2017. Of note, this is in addition to its regular quarterly distribution.

We are boosting our 2018 financial projections for several reasons. First, revenue growth is in the cards, driven by cumulative rate increases and higher customer water usage. Meantime, operating expenses have yet to abate (marginally higher in the third quarter), but we think production costs can subside somewhat next year, while administrative expenses can be held in check. Lastly, a lower effective tax rate stemming from the recent corporate tax overhaul is the primary factor underpinning our bottom-line ramp.

All told, we now look for revenues of \$395 million (+\$25 million from last report's estimate) and earnings of \$2.85 a share (+\$0.25) this year.

Investment spending is still the main theme rolling into next decade. Its spending budget, with approximately \$250 million to \$300 million in available funds, will be periodically tapped to support various projects, infrastructure upgrades, and general water system investments. Presently, management's focus is on the Montevina Water Treatment Plant project (retrofitting was expected to be completed by the end of 2017).

This neutrally ranked equity has etched another high-water mark. Shares of the California-based utility pushed past \$65 per share for the first time in its history, before settling slightly below that level. Still, the stock logged an advance of about 10% over the past three months. While we are bullish on the company's business prospects over the pull to 2020-2022, SJW's rapid climb in share price gives us pause. In sum, we recommend investors wait for a better entry point before initiating a position here.

Nicholas P. Patrikis
January 12, 2018

offers nonregulated water-related services and owns and operates commercial real estate investments. Has about 406 employees. Officers and directors (including Nancy O. Moss) own 26.9% of outstanding shares (3/17 proxy). Chairman & C.E.O.: Richard Roth, Inc.: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

(A) Diluted earnings. Excludes nonrecurring losses: '03, \$1.97; '04, \$3.78; '05, \$1.09; '06, \$16.36; '08, \$1.22; '10, \$0.46. GAAP accounting as of 2013. Next earnings report due late February. Quarterly earnings may not add due to rounding.
(B) Dividends historically paid in early March, June, September, and December. Div'd reinvestment plan available.
(C) In millions, adjusted for stock splits.
(D) Paid special dividend of \$0.17 per share on 11/17

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Company's Financial Strength	B+
Stock's Price Stability	70
Price Growth Persistence	35
Earnings Predictability	45

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YORK WATER NDQ-YORW				RECENT PRICE		P/E RATIO		RELATIVE P/E RATIO		DIV'D YLD		VALUE LINE							
				33.35		30.0 (Trailing: 34.4, Median: 24.0)		1.46		2.0%									
TIMELINESS	3	Raised 11/17/17		High: 21.0	18.5	16.5	18.0	18.0	18.1	18.5	22.0	24.3	26.7	39.8	39.9	Target Price Range	2020	2021	2022
SAFETY	3	Lowered 7/17/15		Low: 15.3	15.5	6.2	9.7	12.8	15.8	16.8	17.6	18.8	19.7	23.8	31.7				
TECHNICAL	2	Raised 1/5/18		LEGENDS - - - - 1.10 x Dividends p sh divided by Interest Rate Relative Price Strength 3-for-2 split 9/06 Options: Yes Shaded area indicates recession															
BETA	.80	(1.00 = Market)		2020-22 PROJECTIONS Ann'l Total Return: 10% Nil Price Gain: +35% (-10%) High Low: 45 30															
Insider Decisions M A M J J A S O N to Buy 1 13 2 2 13 2 2 13 2 Options 0 0 13 0 0 0 0 0 0 to Sell 0 0 0 0 0 0 0 0 0				Institutional Decisions 1Q2017 2Q2017 3Q2017 to Buy 38 42 40 to Sell 33 33 30 Hld's(000) 5127 5206 5125															
MARKET CAP: \$425 million (Small Cap)				% TOT. RETURN 12/17 THIS STOCK VL ARITH. INDEX 1 yr. -9.6 15.8 3 yr. 55.7 30.1 5 yr. 115.9 92.5															
CAPITAL STRUCTURE as of 9/30/17 Total Debt \$88.9 mill. Due in 5 Yrs \$30.5 mill. LT Debt \$88.9 mill. LT Interest \$5.4 mill.				© VALUE LINE PUB. LLC 20-22															
Pension Assets 12/16 \$35.5 mill. Oblig. \$40.8 mill. (43% of Cap'l)				Revenues per sh 5.40 "Cash Flow" per sh 2.25 Earnings per sh A 1.60 Div'd Decl'd per sh B .96 Cap'l Spending per sh .95 Book Value per sh 11.20 Common Shs Outst'g C 12.50 Avg Ann'l P/E Ratio 22.5 Relative P/E Ratio 1.40 Avg Ann'l Div'd Yield 2.6%															
Pfd Stock None Common Stock 12,859,432 shs.				Revenues (\$mill) 67.5 Net Profit (\$mill) 20.0 Income Tax Rate 21.0% AFUDC % to Net Profit 1.5% Long-Term Debt Ratio 43.5% Common Equity Ratio 56.5% Total Capital (\$mill) 250 Net Plant (\$mill) 295 Return on Total Cap'l 9.0% Return on Shr. Equity 14.5% Return on Com Equity 14.5% Retained to Com Eq 5.5% All Div's to Net Prof 60%															
MARKET CAP: \$425 million (Small Cap)				BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2016, the company's average daily availability was 35.4 million gallons and its service territory had an estimated population of 196,000. Has more than 67,000 customers. Residential customers accounted for 63% of 2016 revenues; commercial and industrial (29%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 105 full-time employees at 12/31/16. President/CEO: Jeffrey R. Hines. Officers/directors own 1.1% of the common stock (3/17 proxy). Address: 130 East Market Street, York, Pennsylvania 17401. Telephone: (717) 845-3601. Internet: www.yorkwater.com.															
CURRENT POSITION 2015 2016 9/30/17 (\$MILL)				York Water delivered a better-than-expected bottom-line performance in the third quarter. The regulated water utility earned \$0.31 a share for the September period (+15% year over year), besting our \$0.29 call by two cents. The advance can be largely attributed to a lower effective tax rate (asset improvements qualify for deductions), higher surcharges to customers, and an increased allowance for funds used during construction (interest deduction). Meanwhile, operation and maintenance expenses as a percentage of revenues rose 200 basis points, on an annual basis, which makes the share-net showing even more encouraging. On the other hand, revenue growth was essentially nonexistent, dragged down by generally lower consumption.															
ANNUAL RATES of change (per sh)				Capital expenditures ought to remain par for the course going forward. Management estimates it spent approximately \$25 million in 2017 on aging infrastructure, raw water pumping stations, and pipe replacements, more than double the year-earlier total. With plenty of its footprint still needing to be brought up to speed, we anticipate at least several years of aggressive investment spending.															
Past 10 Yrs Past 5 Yrs Est'd '14-'16 to '20-'22				York Water raised its quarterly dividend by 4%, to \$0.17 a share. This marks 21 consecutive years that the company has increased its annual dividend payout. The current yield is fractionally above that of the Value Line median, but should trend higher into next decade thanks to additional dividend hikes.															
Revenues 4.0% Cash Flow 6.5% Earnings 5.5% Dividends 3.5% Book Value 5.0%				York Water shares have moved up one notch for Timeliness, to 3, and are now pegged to track the year-ahead broader market averages. Prospects out to the 2020-2022 time frame are bright, though most of the benefits we envision appear to already be baked into the stock price. Capital appreciation potential does not stand out at the recent quotation.															
Cal-endar				We are adjusting our 2018 top- and bottom-line estimates. Despite an expanding customer base (acquisition-driven), York's top line is under some pressure. We now look for revenues of \$50.5 million in 2018, down from our prior forecast of \$52.0 million. Conversely, we are adding a dime to our earnings-per-share estimate, to \$1.15.															
QUARTERLY REVENUES (\$ mill.)				Nicholas P. Patrikis January 12, 2018															
2014 2015 2016 2017 2018																			
Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2014 2015 2016 2017 2018																			
10.6 11.2 11.3 11.3 12.0																			
11.8 11.8 12.3 12.7 12.0																			
11.8 12.0 12.6 12.2 13.3																			
12.0 12.5 13.3 12.7 12.7																			
45.9 47.1 47.6 48.5 50.5																			
EARNINGS PER SHARE A																			
2014 2015 2016 2017 2018																			
Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2014 2015 2016 2017 2018																			
.16 .20 .19 .20 .24																			
.22 .22 .23 .23 .25																			
.23 .28 .27 .31 .34																			
.28 .27 .23 .31 .32																			
.89 .97 .92 1.05 1.15																			
QUARTERLY DIVIDENDS PAID B																			
2014 2015 2016 2017 2018																			
Mar.31 Jun.30 Sep.30 Dec.31 Full Year																			
2014 2015 2016 2017 2018																			
.1431 .1495 .1555 .1602 .1602																			
.1431 .1495 .1555 .1602 .1666																			
.572 .604 .627 .647																			

(A) Diluted earnings. Next earnings report due late February.
(B) Dividends historically paid in late February, June, September, and December.

(C) In millions, adjusted for split.

Company's Financial Strength	B+
Stock's Price Stability	B0
Price Growth Persistence	B5
Earnings Predictability	B9

Steelton Borough Authority
Summary of Risk Premium Models for the
Proxy Group of Eight Water Companies

	<u>Proxy Group of Eight Water Companies</u>
Predictive Risk Premium Model (PRPM) (1)	12.51 %
Risk Premium Using an Adjusted Total Market Approach (2)	<u>10.36 %</u>
Average	<u><u>11.44 %</u></u>

Notes:

- (1) From page 14 of this Appendix.
- (2) From page 15 of this Appendix.

Steelton Borough Authority
Indicated ROE
Derived by the Predictive Risk Premium Model (1)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Eight Water Companies	LT Average Predicted Variance	Spot Predicted Variance	Average Predicted Variance	GARCH Coefficient	Predicted Risk Premium (2)	Risk-Free Rate (3)	Indicated ROE (4)
American States Water Co.	0.38%	0.34%	0.36%	1.77914	7.96%	3.61%	11.57%
American Water Works Company Inc	NMF	NMF	NMF	5.03017	NMF	3.61%	NMF
Aqua America Inc	0.45%	0.31%	0.38%	2.27156	10.86%	3.61%	14.47%
California Water Service Group	0.32%	0.42%	0.37%	1.88525	8.70%	3.61%	12.31%
Connecticut Water Service Inc	0.29%	0.40%	0.34%	1.81681	7.67%	3.61%	11.28%
Middlesex Water Co.	0.30%	0.56%	0.43%	1.86587	10.06%	3.61%	13.67%
SJW Corp	0.42%	0.45%	0.44%	1.50592	8.25%	3.61%	11.86%
York Water Co.	0.47%	0.40%	0.43%	1.88107	10.15%	3.61%	13.76%
						Average	<u>12.70%</u>
						Median	<u>12.31%</u>
					Average of Mean and Median		<u>12.51%</u>

NMF = Not Meaningful Figure

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by Bloomberg Professional Service.
- (2) $(1 + (\text{Column [3]} * \text{Column [4]})^{1.2}) - 1$.
- (3) From note 2 on page 26 of this Appendix.
- (4) Column [5] + Column [6].

Steelton Borough Authority
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Proxy Group of Eight Water Companies</u>
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	4.55 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	<u>0.28</u> (2)
3.	Adjusted Prospective Yield on A Rated Public Utility Bonds	4.83 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	<u>0.06</u> (3)
5.	Adjusted Prospective Bond Yield	4.89 %
6.	Equity Risk Premium (4)	<u>5.47</u>
7.	Risk Premium Derived Common Equity Cost Rate	<u><u>10.36</u></u> %

- Notes:
- (1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 22-23 of this Appendix).
 - (2) The average yield spread of A rated public utility bonds over Aaa rated corporate bonds of 0.28% from page 16 of this Appendix.
 - (3) Adjustment to reflect the A2 / A3 Moody's LT issuer rating of the proxy group of eight water companies as shown on page 17 of this Appendix. The 0.06% upward adjustment is derived by taking 1/6 of the spread between A2 and A3 Public Utility Bonds ($1/6 * 0.34\% = 0.06\%$) as derived from page 16 of this Appendix.
 - (4) From page 19 of this Appendix.

Steelton Borough Authority
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1]	[2]	[3]
	<u>Aaa Rated Corporate Bond</u>	<u>A Rated Public Utility Bond</u>	<u>Baa Rated Public Utility Bond</u>
Feb-2018	3.82 %	4.09 %	4.42 %
Jan-2018	3.55	3.86	4.18
Dec-2017	<u>3.51</u>	<u>3.79</u>	<u>4.14</u>
Average	<u><u>3.63 %</u></u>	<u><u>3.91 %</u></u>	<u><u>4.25 %</u></u>

Selected Bond Spreads

A Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:	<u><u>0.28 %</u></u> (1)
Baa Rated Public Utility Bonds Over A Rated Public Utility Bonds:	<u><u>0.34 %</u></u> (2)

Notes:

- (1) Column [2] - Column [1].
- (2) Column [3] - Column [2].

Source of Information:

Bloomberg Professional Service

Steelton Borough Authority
Comparison of Long-Term Issuer Ratings for
Proxy Group of Eight Water Companies

	<u>Moody's</u>		<u>Standard & Poor's</u>	
	<u>Long-Term Issuer Rating</u>		<u>Long-Term Issuer Rating</u>	
	<u>February 2018</u>		<u>February 2018</u>	
<u>Proxy Group of Eight Water Companies</u>	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting(1)</u>	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting(1)</u>
American States Water Co. (2)	A2	6.0	A+	5.0
American Water Works Company Inc (3)	A3	7.0	A	6.0
Aqua America Inc (4)	NR	--	A+	5.0
California Water Service Group (5)	NR	--	A+	5.0
Connecticut Water Service Inc (6)	NR	--	A	6.0
Middlesex Water Co.	NR	--	A	6.0
SJW Corp (7)	NR	--	A	6.0
York Water Co.	NR	--	A-	7.0
Average	<u>A2/A3</u>	<u>6.5</u>	<u>A</u>	<u>5.8</u>

Notes:

- (1) From page 18 of this Appendix.
- (2) Ratings that of Golden State Water Company.
- (3) Ratings that of New Jersey and Pennsylvania American Water Companies.
- (4) Ratings that of Aqua Pennsylvania, Inc.
- (5) Ratings that of California Water Service Company.
- (6) Ratings that of Connecticut Water Company.
- (7) Ratings that of San Jose Water Company.

Source Information: Moody's Investors Service
 Standard & Poor's Global Utilities Rating Service

Numerical Assignment for
Moody's and Standard & Poor's Bond Ratings

<u>Moody's Bond Rating</u>	<u>Numerical Bond Weighting</u>	<u>Standard & Poor's Bond Rating</u>
Aaa	1	AAA
Aa1	2	AA+
Aa2	3	AA
Aa3	4	AA-
A1	5	A+
A2	6	A
A3	7	A-
Baa1	8	BBB+
Baa2	9	BBB
Baa3	10	BBB-
Ba1	11	BB+
Ba2	12	BB
Ba3	13	BB-
B1	14	B+
B2	15	B
B3	16	B-

Steelton Borough Authority
Judgment of Equity Risk Premium for
Proxy Group of Eight Water Companies

<u>Line No.</u>		<u>Proxy Group of Eight Water Companies</u>
1.	Calculated equity risk premium based on the total market using the beta approach (1)	6.14 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	<u>4.79</u>
3.	Average equity risk premium	<u><u>5.47 %</u></u>

Notes: (1) From page 20 of this Appendix.
(2) From page 24 of this Appendix.

Steelton Borough Authority
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Eight Water Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Proxy Group of Eight Water Companies</u>
<u>Ibbotson-Based Equity Risk Premiums:</u>		
1.	Ibbotson Equity Risk Premium (1)	5.56 %
2.	Regression on Ibbotson Risk Premium Data (2)	7.44
3.	Ibbotson Equity Risk Premium based on PRPM (3)	<u>6.46</u>
4.	Average Ibbotson Equity Risk Premium	<u><u>6.49</u></u>
<u>Value Line-Based Equity Risk Premiums:</u>		
5.	Equity Risk Premium Based on Value Line Summary and Index (4)	3.94
6.	Equity Risk Premium Based on Value Line S&P 500 Companies (5)	<u>10.99</u>
7.	Average Value Line Equity Risk Premium	<u><u>7.46</u></u>
<u>Bloomberg-Based Equity Risk Premium:</u>		
8.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	<u><u>10.29</u></u>
9.	Conclusion of Equity Risk Premium (7)	8.08 %
10.	Adjusted Beta (8)	<u>0.76</u>
11.	Forecasted Equity Risk Premium	<u><u>6.14 %</u></u>

Notes provided on page 21 of this Appendix.

Steelton Borough Authority
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Eight Water Companies

Notes:

- (1) Based on the arithmetic mean historical monthly returns on large company common stocks from Ibbotson® SBBI® 2017 Market Report minus the arithmetic mean monthly yield of Moody's average Aaa and Aa corporate bonds from 1926-2016.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of large company common stocks relative to Moody's average Aaa and Aa rated corporate bond yields from 1928-2016 referenced in Note 1 above.
- (3) The Predictive Risk Premium Model (PRPM) is discussed in the accompanying direct testimony. The Ibbotson equity risk premium based on the PRPM is derived by applying the PRPM to the monthly risk premiums between Ibbotson large company common stock monthly returns and average Aaa and Aa corporate monthly bond yields, from January 1928 through December 2017.
- (4) The equity risk premium based on the Value Line Summary and Index is derived by subtracting the average consensus forecast of Aaa corporate bonds of 4.55% (from page 15 of this Appendix) from the projected 3-5 year total annual market return of 8.49% (described fully in note 1 on page 26 of this Appendix).
- (5) Using data from Value Line for the S&P 500, an expected total return of 15.54% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 4.55% results in an expected equity risk premium of 10.99%.
- (6) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 14.84% was derived based upon expected dividend yields and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 4.55% results in an expected equity risk premium of 10.29%.
- (7) Average of lines 4, 7, and 8.
- (8) Average of mean and median beta from page 25 of this Appendix.

Sources of Information:

Stocks, Bonds, Bills, and Inflation - 2017 SBBI Yearbook, John Wiley & Sons, Inc.
Industrial Manual and Mergent Bond Record Monthly Update.
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2017 and March 1, 2018
Bloomberg Professional Service

Consensus Forecasts Of U.S. Interest Rates And Key Assumptions¹

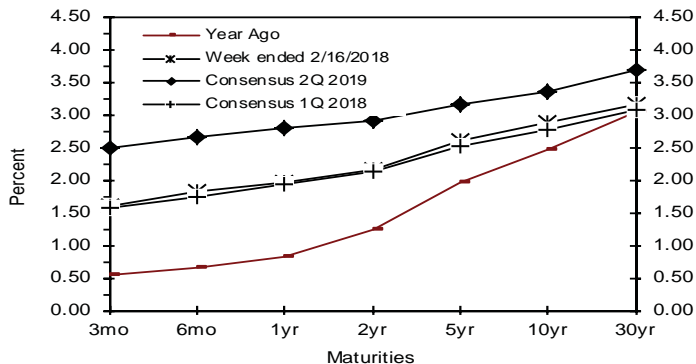
Interest Rates	History								Consensus Forecasts-Quarterly Avg.					
	Average For Week Ending				Average For Month				Latest Qtr	1Q 2018	2Q 2018	3Q 2018	4Q 2018	1Q 2019
	Feb. 16	Feb. 9	Feb. 2	Jan. 26	Jan	Dec	Nov	4Q 2017	2018	2018	2018	2018	2019	2019
Federal Funds Rate	1.42	1.42	1.42	1.41	1.41	1.29	1.16	1.20	1.5	1.7	1.9	2.2	2.3	2.5
Prime Rate	4.50	4.50	4.50	4.50	4.50	4.38	4.25	4.29	4.6	4.8	5.0	5.2	5.4	5.6
LIBOR, 3-mo.	1.86	1.80	1.78	1.75	1.73	1.59	1.42	1.46	1.8	2.0	2.2	2.4	2.6	2.8
Commercial Paper, 1-mo.	1.53	1.50	1.50	1.52	1.50	1.38	1.15	1.22	1.5	1.7	2.0	2.2	2.4	2.5
Treasury bill, 3-mo.	1.60	1.54	1.46	1.43	1.43	1.33	1.23	1.22	1.6	1.8	2.0	2.1	2.3	2.5
Treasury bill, 6-mo.	1.82	1.71	1.65	1.64	1.62	1.49	1.37	1.37	1.7	1.9	2.1	2.3	2.5	2.6
Treasury bill, 1 yr.	1.97	1.89	1.87	1.79	1.80	1.69	1.54	1.54	1.9	2.1	2.3	2.5	2.6	2.8
Treasury note, 2 yr.	2.15	2.10	2.14	2.09	2.02	1.83	1.68	1.68	2.1	2.3	2.5	2.6	2.8	2.9
Treasury note, 5 yr.	2.61	2.54	2.53	2.44	2.36	2.17	2.04	2.06	2.5	2.7	2.8	2.9	3.1	3.2
Treasury note, 10 yr.	2.87	2.82	2.75	2.65	2.56	2.40	2.36	2.37	2.8	2.9	3.0	3.1	3.3	3.3
Treasury note, 30 yr.	3.14	3.10	2.99	2.91	2.86	2.77	2.81	2.82	3.1	3.2	3.4	3.5	3.6	3.7
Corporate Aaa bond	3.97	3.89	3.79	3.73	3.68	3.63	3.70	3.69	3.8	4.1	4.3	4.4	4.6	4.7
Corporate Baa bond	4.54	4.45	4.31	4.26	4.24	4.21	4.29	4.27	4.5	4.8	5.0	5.2	5.3	5.4
State & Local bonds	3.58	3.57	3.53	3.45	3.42	3.46	3.41	3.41	3.6	3.8	3.9	4.1	4.2	4.3
Home mortgage rate	4.38	4.32	4.22	4.15	4.03	3.95	3.92	3.92	4.3	4.5	4.6	4.7	4.9	5.0

Key Assumptions	History								Consensus Forecasts-Quarterly					
	1Q 2016	2Q 2016	3Q 2016	4Q 2016	1Q 2017	2Q 2017	3Q 2017	4Q 2017	2018	2018	2018	2018	2019	2019
Major Currency Index	93.3	89.6	90.3	93.7	94.4	93.0	88.3	88.9	86.5	86.5	86.5	86.4	86.4	86.3
Real GDP	0.6	2.2	2.8	1.8	1.2	3.1	3.2	2.6	2.7	3.0	2.9	2.7	2.5	2.4
GDP Price Index	0.3	2.4	1.4	2.0	2.0	1.0	2.1	2.4	2.1	2.0	2.2	2.1	2.2	2.2
Consumer Price Index	0.1	2.3	1.8	3.0	3.1	-0.3	2.0	3.7	3.0	2.0	2.3	2.1	2.3	2.3

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data: Treasury rates from the Federal Reserve Board's H.15; AAA-AA and A-BBB corporate bond yields from Bank of America-Merrill Lynch and are 15+ years, yield to maturity; State and local bond yields from Bank of America-Merrill Lynch, A-rated, yield to maturity; Mortgage rates from Freddie Mac, 30-year, fixed; LIBOR quotes from Intercontinental Exchange. All interest rate data is sourced from Haver Analytics. Historical data for Fed's Major Currency Index is from FRSR H.10. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS).

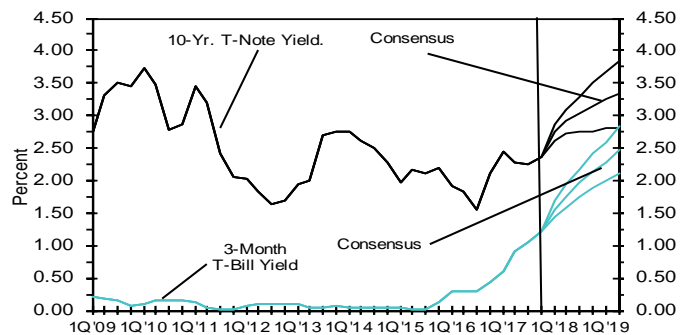
U.S. Treasury Yield Curve

Week ended February 16, 2018 and Year Ago vs. 1Q 2018 and 2Q 2019 Consensus Forecasts



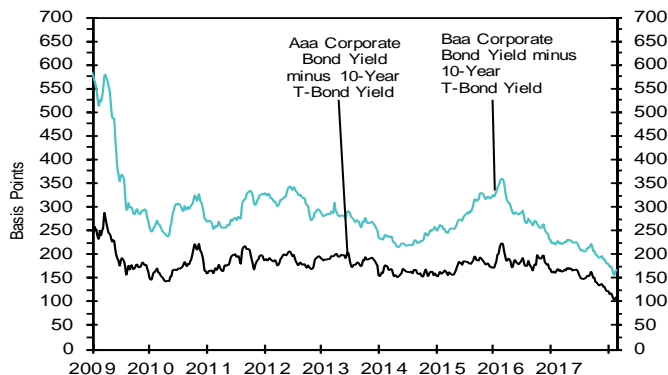
U.S. 3-Mo. T-Bills & 10-Yr. T-Note Yield

(Quarterly Average) Forecast



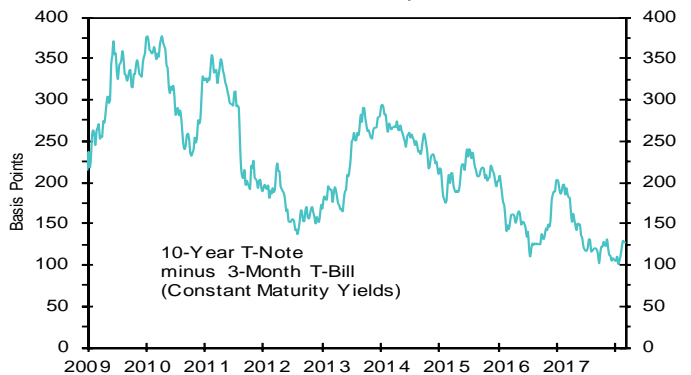
Corporate Bond Spreads

As of week ended February 16, 2018



U.S. Treasury Yield Curve

As of week February 16, 2018



Long-Range Survey:

The table below contains the results of our twice-annual long-range CONSENSUS survey. There are also Top 10 and Bottom 10 averages for each variable. Shown are consensus estimates for the years 2019 through 2023 and averages for the five-year periods 2019-2023 and 2024-2028. Apply these projections cautiously. Few if any economic, demographic and political forces can be evaluated accurately over such long time spans.

		-----Average For The Year-----					Five-Year Averages	
		2019	2020	2021	2022	2023	2019-2023	2024-2028
Interest Rates								
1. Federal Funds Rate	CONSENSUS	2.5	2.7	2.9	2.9	2.9	2.8	3.0
	Top 10 Average	2.9	3.2	3.4	3.4	3.5	3.3	3.5
	Bottom 10 Average	2.1	2.0	2.3	2.3	2.4	2.2	2.4
2. Prime Rate	CONSENSUS	5.5	5.8	5.9	5.9	5.9	5.8	5.9
	Top 10 Average	5.9	6.3	6.4	6.5	6.6	6.3	6.5
	Bottom 10 Average	5.0	5.1	5.2	5.2	5.2	5.1	5.3
3. LIBOR, 3-Mo.	CONSENSUS	2.8	3.1	3.2	3.1	3.2	3.1	3.2
	Top 10 Average	3.2	3.6	3.8	3.8	3.9	3.7	3.8
	Bottom 10 Average	2.4	2.6	2.6	2.5	2.6	2.5	2.6
4. Commercial Paper, 1-Mo.	CONSENSUS	2.6	2.9	3.0	3.0	3.1	2.9	3.1
	Top 10 Average	3.1	3.5	3.6	3.7	3.8	3.5	3.8
	Bottom 10 Average	2.2	2.5	2.6	2.5	2.5	2.5	2.6
5. Treasury Bill Yield, 3-Mo.	CONSENSUS	2.5	2.8	2.9	2.9	2.9	2.8	2.9
	Top 10 Average	2.9	3.3	3.4	3.4	3.5	3.3	3.5
	Bottom 10 Average	2.1	2.3	2.4	2.3	2.3	2.3	2.4
6. Treasury Bill Yield, 6-Mo.	CONSENSUS	2.6	2.9	3.0	3.0	3.0	2.9	3.1
	Top 10 Average	3.0	3.4	3.5	3.6	3.7	3.5	3.7
	Bottom 10 Average	2.2	2.4	2.5	2.4	2.4	2.4	2.5
7. Treasury Bill Yield, 1-Yr.	CONSENSUS	2.7	3.0	3.1	3.1	3.2	3.0	3.2
	Top 10 Average	3.2	3.6	3.7	3.7	3.8	3.6	3.9
	Bottom 10 Average	2.3	2.5	2.6	2.5	2.5	2.5	2.6
8. Treasury Note Yield, 2-Yr.	CONSENSUS	2.8	3.1	3.3	3.2	3.3	3.1	3.3
	Top 10 Average	3.3	3.8	3.8	3.8	3.9	3.7	4.0
	Bottom 10 Average	2.4	2.6	2.7	2.6	2.6	2.6	2.7
10. Treasury Note Yield, 5-Yr.	CONSENSUS	3.1	3.4	3.5	3.5	3.5	3.4	3.6
	Top 10 Average	3.6	3.9	4.1	4.1	4.1	3.9	4.3
	Bottom 10 Average	2.6	2.8	2.9	2.9	2.9	2.8	3.0
11. Treasury Note Yield, 10-Yr.	CONSENSUS	3.3	3.6	3.7	3.7	3.8	3.6	3.8
	Top 10 Average	3.9	4.2	4.3	4.3	4.3	4.2	4.5
	Bottom 10 Average	2.8	2.9	3.1	3.1	3.1	3.0	3.2
12. Treasury Bond Yield, 30-Yr.	CONSENSUS	3.8	4.1	4.2	4.2	4.2	4.1	4.3
	Top 10 Average	4.4	4.7	4.7	4.7	4.8	4.7	5.0
	Bottom 10 Average	3.3	3.5	3.6	3.5	3.6	3.5	3.7
13. Corporate Aaa Bond Yield	CONSENSUS	4.9	5.1	5.2	5.2	5.3	5.1	5.4
	Top 10 Average	5.5	5.9	5.9	6.0	6.0	5.9	6.2
	Bottom 10 Average	4.3	4.5	4.5	4.5	4.6	4.5	4.7
13. Corporate Baa Bond Yield	CONSENSUS	5.7	6.0	6.0	6.0	6.1	6.0	6.2
	Top 10 Average	6.4	6.8	6.8	6.9	6.9	6.8	7.0
	Bottom 10 Average	5.0	5.2	5.3	5.2	5.3	5.2	5.4
14. State & Local Bonds Yield	CONSENSUS	4.4	4.5	4.6	4.5	4.6	4.5	4.8
	Top 10 Average	5.0	5.2	5.2	5.3	5.3	5.2	5.5
	Bottom 10 Average	3.9	4.0	4.0	3.9	4.1	4.0	4.1
15. Home Mortgage Rate	CONSENSUS	5.0	5.2	5.3	5.3	5.4	5.2	5.5
	Top 10 Average	5.5	5.8	5.9	6.0	6.0	5.8	6.1
	Bottom 10 Average	4.5	4.7	4.7	4.6	4.7	4.6	4.9
A. FRB - Major Currency Index	CONSENSUS	90.4	90.0	89.9	89.9	90.0	90.0	90.4
	Top 10 Average	94.7	94.8	95.0	95.1	95.3	95.0	95.4
	Bottom 10 Average	86.9	85.8	85.4	85.5	85.6	85.8	86.1
		-----Year-Over-Year, % Change-----					Five-Year Averages	
		2019	2020	2021	2022	2023	2019-2023	2024-2028
B. Real GDP	CONSENSUS	2.2	1.9	2.0	2.0	2.0	2.0	2.0
	Top 10 Average	2.5	2.4	2.5	2.4	2.3	2.4	2.4
	Bottom 10 Average	1.8	1.4	1.7	1.6	1.7	1.6	1.7
C. GDP Chained Price Index	CONSENSUS	2.2	2.1	2.1	2.1	2.1	2.1	2.1
	Top 10 Average	2.5	2.3	2.3	2.3	2.3	2.3	2.3
	Bottom 10 Average	1.8	1.9	1.9	2.0	1.9	1.9	1.9
D. Consumer Price Index	CONSENSUS	2.3	2.3	2.3	2.2	2.2	2.3	2.2
	Top 10 Average	2.7	2.6	2.6	2.4	2.4	2.5	2.4
	Bottom 10 Average	1.9	1.9	2.0	2.0	2.0	2.0	2.0

Steelton Borough Authority
Derivation of Mean Equity Risk Premium Based Studies
Using Holding Period Returns and
Projected Market Appreciation of the S&P Utility Index

<u>Line No.</u>		<u>Implied Equity Risk Premium</u>
	<u>Equity Risk Premium based on S&P Utility Index Holding Period Returns (1):</u>	
1.	Historical Equity Risk Premium	4.04 %
2.	Regression of Historical Equity Risk Premium (2)	5.70
3.	Forecasted Equity Risk Premium Based on PRPM (3)	<u>4.11</u>
4.	Average Equity Risk Premium Using S&P Holding Period Returns	<u>4.61 %</u>
	<u>Equity Risk Premium based on Projected Market Appreciation of the S&P Utility Index</u>	
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Value Line Data) (4)	<u>4.72</u>
6.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg Data) (5)	<u>5.03</u>
7.	Average Equity Risk Premium (6)	<u>4.79 %</u>

- Notes: (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2017. Holding period returns are calculated based upon income received (dividends and interest) plus the relative change in the market value of a security over a one-year holding period.
- (2) This equity risk premium is based on a regression of the monthly equity risk premiums of the S&P Utility Index relative to Moody's A rated public utility bond yields from 1928 - 2017 referenced in note 1 above.
- (3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A rated public utility bonds from January 1928 - February 2018.
- (4) Using data from Value Line for the S&P Utilities Index, an expected return of 9.55% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A rated public utility bond yield of 4.83%, calculated on line 3 of page 15 of this Appendix results in an equity risk premium of 4.72%. (9.55% - 4.83% = 4.72%)
- (5) Using data from Bloomberg Professional Service for the S&P Utilities Index, an expected return of 9.86% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A rated public utility bond yield of 4.83%, calculated on line 3 of page 15 of this Appendix results in an equity risk premium of 5.03%. (9.86% - 4.83% = 5.03%)
- (6) Average of lines 4 through 6.

Steelton Borough Authority
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Eight Water Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
American States Water Co.	0.80	0.80	0.80	9.07 %	3.61 %	10.86 %	11.32 %	11.09 %
American Water Works Company Inc	0.65	0.67	0.66	9.07	3.61	9.59	10.36	9.98
Aqua America Inc	0.75	0.72	0.74	9.07	3.61	10.32	10.91	10.61
California Water Service Group	0.80	0.78	0.79	9.07	3.61	10.77	11.25	11.01
Connecticut Water Service Inc	0.65	0.36	0.51	9.07	3.61	8.23	9.34	8.79
Middlesex Water Co.	0.80	0.86	0.83	9.07	3.61	11.13	11.52	11.33
SJW Corp	0.70	0.77	0.74	9.07	3.61	10.32	10.91	10.61
York Water Co.	0.80	0.88	0.84	9.07	3.61	11.23	11.59	11.41
Mean			<u>0.74</u>			<u>10.31 %</u>	<u>10.90 %</u>	<u>10.60 %</u>
Median			<u>0.77</u>			<u>10.55 %</u>	<u>11.08 %</u>	<u>10.81 %</u>
Average of Mean and Median			<u>0.76</u>			<u>10.43</u>	<u>10.99</u>	<u>10.71 %</u>

Notes on page 26 of this Appendix.

Steelton Borough Authority
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

- (1) The market risk premium (MRP) is derived by using six different measures from three sources: Ibbotson, Value Line, and Bloomberg as illustrated below:

Historical Data MRP Estimates:

Measure 1: Ibbotson Arithmetic Mean MRP (1926-2016)

Arithmetic Mean Monthly Returns for Large Stocks 1926-2016:	11.97 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	<u>5.17</u>
MRP based on Ibbotson Historical Data:	<u><u>6.80</u></u> %

Measure 2: Application of a Regression Analysis to Ibbotson Historical Data (1926-2016)

8.57 %

Measure 3: Application of the PRPM to Ibbotson Historical Data: (January 1926 - February 2018)

7.33 %

Average Historical Data MRP 7.57 %

Value Line MRP Estimates:

Measure 4: Value Line Projected MRP (Thirteen weeks ending March 02, 2018)

Total projected return on the market 3-5 years hence*:	8.49 %
Projected Risk-Free Rate (see note 2):	<u>3.61</u>
MRP based on Value Line Summary & Index:	<u><u>4.88</u></u> %

*Forecasted 3-5 year capital appreciation plus expected dividend yield

Measure 5: Value Line Projected Return on the Market based on the S&P 500

Total return on the Market based on the S&P 500:	15.54 %
Projected Risk-Free Rate (see note 2):	<u>3.61</u>
MRP based on Value Line data	<u><u>11.93</u></u> %

Average Value Line MRP: 8.40 %

Measure 6: Bloomberg Projected MRP

Total return on the Market based on the S&P 500:	14.84 %
Projected Risk-Free Rate (see note 2):	<u>3.61</u>
MRP based on Bloomberg data	<u><u>11.23</u></u> %

Average of Value Line, Ibbotson, and Bloomberg MRP: 9.07 %

- (2) For reasons explained in the direct testimony, the appropriate risk-free rate for cost of capital purposes is the average forecast of 30 year Treasury Bonds per the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts. (See pages 22-23 of this Appendix.) The projection of the risk-free rate is illustrated below:

First Quarter 2018	3.10 %
Second Quarter 2018	3.20
Third Quarter 2018	3.40
Fourth Quarter 2018	3.50
First Quarter 2019	3.60
Second Quarter 2019	3.70
2019-2023	4.10
2024-2028	<u>4.30</u>
	<u><u>3.61</u></u> %

- (3) Average of Column 6 and Column 7.

Sources of Information:

Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2017 and March 1, 2018
Stocks, Bonds, Bills, and Inflation - 2017 SBBI Yearbook, John Wiley & Sons, Inc.
Bloomberg Professional Services

Steelton Borough Authority
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Utility Proxy Group

The criteria for selection of the proxy group of eleven non-price regulated companies was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The proxy group of eleven non-price regulated companies were then selected based on the unadjusted beta range of 0.37 – 0.69 and residual standard error of the regression range of 2.2981 – 2.7409 of the water proxy group.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus two standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the water industry's residual standard error of the regression is 0.1107. The standard deviation of the standard error of the regression is calculated as follows:

$$\text{Standard Deviation of the Std. Err. of the Regr.} = \frac{\text{Standard Error of the Regression}}{\sqrt{2N}}$$

where: N = number of observations. Since Value Line betas are derived from weekly price change observations over a period of five years, N = 259

$$\text{Thus, } 0.1107 = \frac{2.5195}{\sqrt{518}} = \frac{2.5195}{22.7596}$$

Source of Information: Value Line, Inc., December 2017
Value Line Investment Survey (Standard Edition)

Steelton Borough Authority
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
<u>Proxy Group of Eight Water Companies</u>	<u>Value Line Adjusted Beta</u>	<u>Unadjusted Beta</u>	<u>Residual Standard Error of the Regression</u>	<u>Standard Deviation of Beta</u>
American States Water Co.	0.75	0.56	2.7946	0.0900
American Water Works Company Inc	0.65	0.42	1.9373	0.0624
Aqua America Inc	0.70	0.50	2.1431	0.0690
California Water Service Group	0.75	0.58	2.4397	0.0786
Connecticut Water Service Inc	0.65	0.45	2.5093	0.0808
Middlesex Water Co.	0.75	0.56	2.6567	0.0856
SJW Corp	0.75	0.55	2.8737	0.0926
York Water Co.	0.75	0.58	2.8013	0.0902
Average	<u>0.72</u>	<u>0.53</u>	<u>2.5195</u>	<u>0.0812</u>
Beta Range (+/- 2 std. Devs. of Beta) 2 std. Devs. of Beta	0.37 0.16	0.69		
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.2981	2.7409		
Std. dev. of the Res. Std. Err.	0.1107			
2 std. devs. of the Res. Std. Err.	0.2214			

Source of Information: Valueline Proprietary Database, December 2017

Steelton Borough Authority
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Eight Water Companies

	[1]	[2]	[3]	[4]
<u>Proxy Group of Eleven Non-Price Regulated Companies</u>	<u>VL Adjusted Beta</u>	<u>Unadjusted Beta</u>	<u>Residual Standard Error of the Regression</u>	<u>Standard Deviation of Beta</u>
ABM Industries Inc.	0.80	0.66	2.3406	0.0754
Cheesecake Factory	0.80	0.68	2.5797	0.0831
CBOE Holdings	0.70	0.49	2.5086	0.0808
CME Group	0.80	0.63	2.6006	0.0838
Hormel Foods	0.75	0.57	2.2989	0.0741
Kroger Co.	0.80	0.67	2.6481	0.0853
Lancaster Colony	0.80	0.64	2.3656	0.0762
Lilly (Eli)	0.75	0.60	2.3576	0.0760
Mercury General	0.70	0.52	2.4935	0.0803
O'Reilly Automotive	0.80	0.68	2.6619	0.0858
WD-40 Co.	0.80	0.63	2.4070	0.0775
Average	<u>0.77</u>	<u>0.62</u>	<u>2.4800</u>	<u>0.0800</u>
Proxy Group of Eight Water Companies	<u>0.72</u>	<u>0.53</u>	<u>2.5195</u>	<u>0.0812</u>

Source of Information:

Valueline Proprietary Database, December 2017

Steelton Borough Authority
Summary of Cost of Equity Models Applied to
Proxy Group of Eleven Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Eight Water Companies

<u>Principal Methods</u>	<u>Proxy Group of Eleven Non-Price Regulated Companies</u>
Discounted Cash Flow Model (DCF) (1)	13.15 %
Risk Premium Model (RPM) (2)	12.05
Capital Asset Pricing Model (CAPM) (3)	11.65
	Mean <u><u>12.28</u></u> %
	Median <u><u>12.05</u></u> %
	Average of Mean and Median <u><u>12.17</u></u> %

Notes:

- (1) From page 31 of this Appendix.
- (2) From page 32 of this Appendix.
- (3) From page 35 of this Appendix.

Steelton Borough Authority
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Eight Water Companies

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Eleven Non-Price Regulated Companies	Value Line Projected Five Year Growth in EPS	Reuters Mean Consensus Projected Five Year Growth Rate in EPS	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (1)
ABM Industries Inc.	15.00 %	NA %	NA %	5.10 %	10.05 %	1.91 %	11.96 %
Cheeseecake Factory	7.00	10.88	14.40	10.88	10.79	2.54	13.33
CBOE Holdings	16.50	17.90	17.60	17.90	17.48	0.95	18.43
CME Group	8.50	15.70	12.20	15.70	13.03	1.93	14.96
Hormel Foods	10.50	NA	9.30	0.53	6.78	2.21	8.99
Kroger Co.	4.50	(2.36)	3.00	(2.36)	3.75	1.82	5.57
Lancaster Colony	8.00	NA	NA	3.00	5.50	1.94	7.44
Lilly (Eli)	11.00	12.13	11.00	12.13	11.57	2.86	14.43
Mercury General	14.00	25.30	31.12	25.30	23.93	5.60	29.53
O'Reilly Automotive	11.00	16.86	16.00	16.86	15.18	-	NA
WD-40 Co.	7.00	NA	10.00	13.00	10.00	1.86	11.86
						Mean	13.65 %
						Median	12.65 %
					Average of Mean and Median		13.15 %

NA= Not Available
NMF= Not Meaningful Figure

(1) The application of the DCF model to the domestic, non-price regulated comparable risk companies is identical to the application of the DCF to the utility proxy group. The dividend yield is derived by using the 60 day average price and the spot indicated dividend as of January 12, 2018. The dividend yield is then adjusted by 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.reuters.com, www.zacks.com, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information:
Value Line Investment Survey
www.reuters.com Downloaded on 02/28/2018
www.zacks.com Downloaded on 02/28/2018
www.yahoo.com Downloaded on 02/28/2018

Steelton Borough Authority
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Proxy Group of Eleven Non-Price Regulated Companies</u>
1.	Prospective Yield on Baa Rated Corporate Bonds (1)	5.30 %
2.	Adjustment to Reflect Bond rating Difference of Non-Price Regulated Companies (2)	(0.28)
3.	Adjusted Prospective Bond Yield	5.02
4.	Equity Risk Premium (3)	7.03
5.	Risk Premium Derived Common Equity Cost Rate	12.05 %

Notes: (1) Average forecast of Baa corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated December 1, 2017 and March 1, 2018 (see pages 22-23 of this Appendix). The estimates are detailed below.

First Quarter 2018	4.50 %
Second Quarter 2018	4.80
Third Quarter 2018	5.00
Fourth Quarter 2018	5.20
First Quarter 2019	5.30
Second Quarter 2019	5.40
2019-2023	6.00
2024-2028	6.20
Average	5.30 %

(2) The average yield spread of Baa rated corporate bonds over A corporate bonds for the three months ending February 2018 . To reflect the average rating of the non-utility proxy group, the prospective yield on Baa corporate bonds must be adjusted by 2/3 of the spread between A and Baa corporate bond yields as shown below:

	A Corp. Bond Yield		Baa Corp. Bond Yield		Spread
Feb-2018	4.09 %		4.51 %		0.42 %
Jan-2018	3.85		4.26		0.41
Dec-2017	3.79		4.22		0.43
	Average yield spread				0.42 %
	2/3 of spread				0.28 %

(3) From page 34 of this Appendix.

Steelton Borough Authority
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Eleven Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Eight Water Companies

<u>Proxy Group of Eleven Non-Price Regulated Companies</u>	<u>Moody's Long-Term Issuer Rating February 2018</u>		<u>Standard & Poor's Long-Term Issuer Rating February 2018</u>	
	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting (1)</u>	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting (1)</u>
ABM Industries Inc.	NR	--	NR	--
Cheesecake Factory	NR	--	NR	--
CBOE Holdings	Baa1	8.0	BBB+	8.0
CME Group	Aa3	4.0	AA-	4.0
Hormel Foods	A1	5.0	A	6.0
Kroger Co.	Baa1	8.0	BBB	9.0
Lancaster Colony	NR	--	NR	--
Lilly (Eli)	A2	6.0	AA-	4.0
Mercury General	Baa2	9.0	NR	--
O'Reilly Automotive	Baa1	8.0	BBB+	8.0
WD-40 Co.	NR	--	NR	--
Average	<u>A3</u>	<u>6.9</u>	<u>A / A-</u>	<u>6.5</u>

Notes:

(1) From page 18 of this Appendix.

Source of Information:

Bloomberg Professional Services

Steelton Borough Authority
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Proxy Group of Eleven Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Eight Water Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Proxy Group of Eleven Non-Price Regulated Companies</u>
<u>Ibbotson-Based Equity Risk Premiums:</u>		
1.	Ibbotson Equity Risk Premium (1)	5.56 %
2.	Regression on Ibbotson Risk Premium Data (2)	7.44
3.	Ibbotson Equity Risk Premium based on PRPM (3)	<u>6.46</u>
4.	Average Ibbotson Equity Risk Premium	<u><u>6.49</u></u>
<u>Value Line-Based Equity Risk Premiums:</u>		
5.	Equity Risk Premium Based on <u>Value Line</u> Summary and Index (4)	3.94
6.	Equity Risk Premium Based on <u>Value Line</u> S&P 500 Companies (5)	<u>10.99</u>
7.	Average <u>Value Line</u> Equity Risk Premium	<u><u>7.46</u></u>
<u>Bloomberg-Based Equity Risk Premium:</u>		
8.	Equity Risk Premium Based on Bloomberg S&P 500 Companies (6)	<u><u>10.29</u></u>
9.	Conclusion of Equity Risk Premium (7)	8.08 %
10.	Adjusted Beta (8)	<u>0.87</u>
11.	Forecasted Equity Risk Premium	<u><u>7.03</u></u> %

Notes:

- (1) From note 1 of page 23 of this Appendix.
- (2) From note 2 of page 23 of this Appendix.
- (3) From note 3 of page 23 of this Appendix.
- (4) From note 4 of page 23 of this Appendix.
- (5) From note 5 of page 23 of this Appendix.
- (6) From note 6 of page 23 of this Appendix.
- (7) Average of lines 4, 7, and 8.
- (8) Average of mean and median beta from page 35 of this Appendix.

Sources of Information:

Stocks, Bonds, Bills, and Inflation - 2017 SBBI Yearbook, John Wiley & Sons, Inc.
Value Line Summary and Index
Blue Chip Financial Forecasts, December 1, 2017 and March 1, 2018
Bloomberg Professional Services

Steelton Borough Authority
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Eight Water Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Eleven Non-Price Regulated Companies	Value Line Adjusted Beta	Bloomberg Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
ABM Industries Inc.	0.80	1.01	0.90	9.07 %	3.61 %	11.77 %	12.00 %	11.88 %
Cheesecake Factory	0.75	1.10	0.92	9.07	3.61	11.95	12.13	12.04
CBOE Holdings	0.70	1.14	0.92	9.07	3.61	11.95	12.13	12.04
CME Group	0.75	0.80	0.77	9.07	3.61	10.59	11.11	10.85
Hormel Foods	0.75	0.59	0.67	9.07	3.61	9.68	10.43	10.06
Kroger Co.	0.85	0.99	0.92	9.07	3.61	11.95	12.13	12.04
Lancaster Colony	0.85	0.83	0.84	9.07	3.61	11.23	11.59	11.41
Lilly (Eli)	0.75	0.92	0.84	9.07	3.61	11.23	11.59	11.41
Mercury General	0.80	0.96	0.88	9.07	3.61	11.59	11.86	11.72
O'Reilly Automotive	0.90	0.85	0.88	9.07	3.61	11.59	11.86	11.72
WD-40 Co.	0.85	0.98	0.91	9.07	3.61	11.86	12.06	11.96
Mean			<u>0.86</u>			<u>11.40 %</u>	<u>11.72 %</u>	<u>11.56 %</u>
Median			<u>0.88</u>			<u>11.59 %</u>	<u>11.86 %</u>	<u>11.73 %</u>
Average of Mean and Median			<u>0.87</u>			<u>11.50 %</u>	<u>11.79 %</u>	<u>11.65 %</u>

Notes:

- (1) From note 1 of page 26 of this Appendix.
- (2) From note 2 of page 26 of this Appendix.
- (3) Average of CAPM and ECAPM cost rates.

Steelton Borough Authority
Calculation of Trended Original Cost Less Depreciation
of Operating Assets

NARUC Code	Asset	Original Year Installed / Purchase Date	Age	Estimated / Original Cost	Actual / Original Cost	Useful Life	Accumulated Depreciation	Net Book Value	HW Index Value Orig	HW Index Value Present	HW Ratio	Trended Original Cost Less Depreciation	Notes	
303	Land and Land Rights	1971	N/A	\$	1	NA	\$	1				\$	1	
303	Land and Land Rights	1972	N/A	\$	1	NA	\$	1				\$	1	
303	Land and Land Rights	1972	N/A	\$	5,150	NA	\$	5,150				\$	5,150	
303	Land and Land Rights	1972	N/A	\$	5,253	NA	\$	5,253				\$	5,253	
303	Land and Land Rights	1972	N/A	\$	6,695	NA	\$	6,695				\$	6,695	
303	Land and Land Rights	1972	N/A	\$	6,901	NA	\$	6,901				\$	6,901	
303	Land and Land Rights	1972	N/A	\$	8,240	NA	\$	8,240				\$	8,240	
303	Land and Land Rights	1985	N/A	\$	1	NA	\$	1				\$	1	
303	Right-of-way	2001	N/A	\$	1	NA	\$	1				\$	1	
303	Easement	2010	N/A	\$	1	NA	\$	1				\$	1	
303	Land and Land Rights	N/A	N/A	\$	-	NA	\$	-				\$	NA	
303	Land and Land Rights	N/A	N/A	\$	-	NA	\$	-				\$	NA	
304	Structure	2010	8	\$ 2,321,734	40	40	\$ 464,347	\$ 1,857,387	558	687	1.23	\$ 2,286,783	W1 - Structures and Improvements	
304	Building	2014	4	\$ 9,584	15	15	\$ 2,556	\$ 7,028	630	687	1.09	\$ 7,664	W1 - Structures and Improvements	
310	Power Generation Equipment	2015	3	\$ 32,754	25	25	\$ 32,754	\$ 240,197	551	507	0.92	\$ 221,016	M - Turbo Generators	
310	Power Generation Equipment	2015	3	\$ 32,754	25	25	\$ 32,754	\$ 240,197	551	507	0.92	\$ 221,016	M - Turbo Generators	
311	Pumps	2012	6	\$ 6,881	20	20	\$ 2,064	\$ 4,817	785	1,146	1.46	\$ 6,746	W1 - Electric Pumping Equipment	
311	Pumps	2014	4	\$ 6,822	20	20	\$ 1,324	\$ 5,288	900	1,146	1.27	\$ 6,746	W1 - Electric Pumping Equipment	
311	Pumps	2016	0	\$ 3,662	40	40	\$ 2,625	\$ 3,662	1,146	1,146	1.00	\$ 3,662	W1 - Electric Pumping Equipment	
320	Potassium Permanganate System	2004	14	\$ 7,500	40	40	\$ 2,625	\$ 4,875	482	797	1.73	\$ 8,410	W1 - Large treatment plant equipment	
320	Potassium Permanganate System	2004	14	\$ 7,500	40	40	\$ 2,625	\$ 4,875	482	797	1.73	\$ 8,410	W1 - Large treatment plant equipment	
320	Non-ionic Polymer System	2015	3	\$ 12,264	40	40	\$ 920	\$ 11,344	482	797	1.08	\$ 12,268	W1 - Large treatment plant equipment	
320	Liquid Alum System	2016	2	\$ 3,264	40	40	\$ 163	\$ 3,101	758	797	1.05	\$ 3,260	W1 - Large treatment plant equipment	
320	Soda Ash System	2016	2	\$ 12,987	40	40	\$ 649	\$ 12,338	758	797	1.05	\$ 12,972	W1 - Large treatment plant equipment	
320	Non-ionic Polymer System	2017	1	\$ 3,291	40	40	\$ 82	\$ 3,209	785	797	1.02	\$ 3,258	W1 - Large treatment plant equipment	
320	Mixer	2018	0	\$ 893	40	40	\$ -	\$ 893	797	797	1.00	\$ 893	W1 - Large treatment plant equipment	
331	4" Gate Valve	1907	111	\$ 54	10	54	\$ -	\$ -				\$ -	W1 - Mains - Average all Types	
331	10" Gate Valve	1907	111	\$ 150	10	150	\$ -	\$ -				\$ -	W1 - Mains - Average all Types	
331	8" Gate Valve	1907	111	\$ 208	10	208	\$ -	\$ -				\$ -	W1 - Mains - Average all Types	
331	6" Gate Valve	1907	111	\$ 235	10	235	\$ -	\$ -				\$ -	W1 - Mains - Average all Types	
331	4" Ductile Iron Pipe	1907	111	\$ 414	65	414	\$ -	\$ -				\$ -	W1 - Mains - Average all Types	
331	8" Ductile Iron Pipe	1907	111	\$ 2,263	65	2,263	\$ -	\$ -				\$ -	W1 - Mains - Average all Types	
331	4" Ductile Iron Pipe	1907	111	\$ 2,442	65	2,442	\$ -	\$ -				\$ -	W1 - Mains - Average all Types	
331	10" Ductile Iron Pipe	1907	111	\$ 3,810	65	3,810	\$ -	\$ -				\$ -	W1 - Mains - Average all Types	
335	Excavation And Aggregate Backfill	1907	111	\$ 1,221	40	40	\$ -	\$ -				\$ -	W1 - Hydrants Installed	
354	Surface Restoration	1907	111	\$ 4,253	65	65	\$ -	\$ -				\$ -	M - Construction Equipment	
331	8" Gate Valve	1916	102	\$ 35	10	35	\$ -	\$ -				\$ -	M - Construction Equipment	
331	4" Gate Valve	1916	102	\$ 49	10	49	\$ -	\$ -				\$ -	M - Construction Equipment	
331	6" Gate Valve	1916	102	\$ 132	10	132	\$ -	\$ -				\$ -	M - Construction Equipment	
331	8" Ductile Iron Pipe	1916	102	\$ 210	65	210	\$ -	\$ -				\$ -	M - Construction Equipment	
331	4" Ductile Iron Pipe	1916	102	\$ 666	65	666	\$ -	\$ -				\$ -	M - Construction Equipment	
331	6" Ductile Iron Pipe	1916	102	\$ 673	65	673	\$ -	\$ -				\$ -	M - Construction Equipment	
331	12" Gate Valve	1916	102	\$ 1,237	10	1,237	\$ -	\$ -				\$ -	M - Construction Equipment	
331	12" Ductile Iron Pipe	1916	102	\$ 7,758	65	7,758	\$ -	\$ -				\$ -	M - Construction Equipment	
335	Excavation And Aggregate Backfill	1916	102	\$ 1,825	40	40	\$ -	\$ -				\$ -	M - Construction Equipment	
354	Surface Restoration	1916	102	\$ 3,362	65	65	\$ -	\$ -				\$ -	M - Construction Equipment	
331	10" Gate Valve	1926	92	\$ 4,708	15	15	\$ -	\$ -				\$ -	M - Construction Equipment	
331	8" Gate Valve	1926	92	\$ 242	10	242	\$ -	\$ -				\$ -	M - Construction Equipment	
331	4" Gate Valve	1926	92	\$ 500	10	500	\$ -	\$ -				\$ -	M - Construction Equipment	
331	10" Ductile Iron Pipe	1926	92	\$ 604	10	604	\$ -	\$ -				\$ -	M - Construction Equipment	
331	6" Gate Valve	1926	92	\$ 764	65	764	\$ -	\$ -				\$ -	M - Construction Equipment	
331	12" Gate Valve	1926	92	\$ 891	10	891	\$ -	\$ -				\$ -	M - Construction Equipment	
331	8" Ductile Iron Pipe	1926	92	\$ 1,116	10	1,116	\$ -	\$ -				\$ -	M - Construction Equipment	
331	4" Ductile Iron Pipe	1926	92	\$ 2,691	65	2,691	\$ -	\$ -				\$ -	M - Construction Equipment	
331	4" Ductile Iron Pipe	1926	92	\$ 5,182	65	5,182	\$ -	\$ -				\$ -	M - Construction Equipment	
331	12" Ductile Iron Pipe	1926	92	\$ 6,303	65	6,303	\$ -	\$ -				\$ -	M - Construction Equipment	
331	12" Ductile Iron Pipe	1926	92	\$ 7,093	65	7,093	\$ -	\$ -				\$ -	M - Construction Equipment	
335	Excavation And Aggregate Backfill	1926	92	\$ 3,661	40	40	\$ -	\$ -				\$ -	M - Construction Equipment	
354	Surface Restoration	1926	92	\$ 11,825	65	65	\$ -	\$ -				\$ -	M - Construction Equipment	
354	Surface Restoration	1926	92	\$ 16,555	15	15	\$ -	\$ -				\$ -	M - Construction Equipment	
331	4" Gate Valve	1946	72	\$ 124	10	124	\$ -	\$ -				\$ -	M - Construction Equipment	
331	4" Ductile Iron Pipe	1946	72	\$ 1,868	65	1,868	\$ -	\$ -				\$ -	M - Construction Equipment	
335	Excavation And Aggregate Backfill	1946	72	\$ 280	40	280	\$ -	\$ -				\$ -	M - Construction Equipment	
354	Excavation And Aggregate Backfill	1946	72	\$ 1,402	65	65	\$ -	\$ -				\$ -	M - Construction Equipment	

Steelton Borough Authority
Calculation of Trended Original Cost Less Depreciation
of Operating Assets

NARUC Code	Asset	Original Year Installed / Purchase Date	Age	Estimated / Original Cost	Actual Original Cost	Useful Life	Accumulated Depreciation	Net Book Value	HW Index Value Orig	HW Index Value Present	HW Ratio	Trended Original Cost Less Depreciation	Notes
354	Surface Restoration	1946	72	\$ 1,962	\$ 1,962	15	\$	\$ -	57	790	13.86	\$ 2,391	M - Construction Equipment
331	10" Ductile Iron Pipe	1956	62	\$ 3,737	\$ 3,565	65	\$ 172	\$ 172	57	580	10.55	\$ 606	W1 - Mains - Average all Types
354	Excavation And Aggregate Backfill	1956	62	\$ 1,245	\$ 1,188	65	\$ 55	\$ 55	57	580	10.55	\$ 606	M - Construction Equipment
354	Surface Restoration	1956	62	\$ 1,744	\$ 1,744	15	\$	\$ -	75	790	10.53	\$ -	M - Construction Equipment
331	4" Gate Valve	1966	52	\$ 237	\$ 237	10	\$	\$ -	75	790	10.53	\$ -	W1 - Mains - Average all Types
331	6" Gate Valve	1966	52	\$ 325	\$ 325	10	\$	\$ -	75	790	10.53	\$ -	W1 - Mains - Average all Types
331	4" Ductile Iron Pipe	1966	52	\$ 1,100	\$ 880	65	\$ 220	\$ 220	75	790	10.53	\$ 2,318	W1 - Mains - Average all Types
331	6" Ductile Iron Pipe	1966	52	\$ 1,197	\$ 958	65	\$ 239	\$ 239	75	790	10.53	\$ 2,522	W1 - Mains - Average all Types
354	Excavation And Aggregate Backfill	1966	52	\$ 1,623	\$ 1,298	65	\$ 325	\$ 325	75	580	7.95	\$ 2,579	M - Construction Equipment
354	Surface Restoration	1966	52	\$ 2,272	\$ 2,272	15	\$	\$ -	154	790	5.13	\$ -	M - Construction Equipment
331	4" Gate Valve	1976	42	\$ 3,378	\$ 3,378	10	\$	\$ -	154	790	5.13	\$ -	W1 - Mains - Average all Types
331	12" Gate Valve	1976	42	\$ 4,057	\$ 4,057	10	\$	\$ -	154	790	5.13	\$ -	W1 - Mains - Average all Types
331	16" Gate Valve	1976	42	\$ 4,161	\$ 4,161	10	\$	\$ -	154	790	5.13	\$ -	W1 - Mains - Average all Types
331	10" Gate Valve	1976	42	\$ 9,790	\$ 9,790	10	\$	\$ -	154	790	5.13	\$ -	W1 - Mains - Average all Types
331	16" Ductile Iron Pipe	1976	42	\$ 13,004	\$ 8,403	65	\$ 4,601	\$ -	154	790	5.13	\$ 23,605	W1 - Mains - Average all Types
331	6" Gate Valve	1976	42	\$ 15,805	\$ 15,805	10	\$	\$ -	154	790	5.13	\$ -	W1 - Mains - Average all Types
331	8" Gate Valve	1976	42	\$ 21,808	\$ 21,808	10	\$	\$ -	154	790	5.13	\$ -	W1 - Mains - Average all Types
331	4" Ductile Iron Pipe	1976	42	\$ 22,214	\$ 14,354	65	\$ 7,860	\$ 7,860	154	790	5.13	\$ 40,323	W1 - Mains - Average all Types
331	12" Ductile Iron Pipe	1976	42	\$ 79,336	\$ 51,284	65	\$ 28,073	\$ 28,073	154	790	5.13	\$ 144,010	W1 - Mains - Average all Types
331	6" Ductile Iron Pipe	1976	42	\$ 136,157	\$ 87,979	65	\$ 48,179	\$ 48,179	154	790	5.13	\$ 247,151	W1 - Mains - Average all Types
331	10" Ductile Iron Pipe	1976	42	\$ 143,008	\$ 92,405	65	\$ 50,603	\$ 50,603	154	790	5.13	\$ 259,586	W1 - Mains - Average all Types
331	8" Ductile Iron Pipe	1976	42	\$ 183,403	\$ 118,507	65	\$ 64,897	\$ 64,897	154	790	5.13	\$ 332,911	W1 - Mains - Average all Types
335	Fire Hydrant Assembly	1976	42	\$ 67,431	\$ 67,431	40	\$	\$ -	153	580	3.79	\$ 359,751	w1 - Hydrants Installed
354	Excavation And Aggregate Backfill	1976	42	\$ 268,195	\$ 173,295	65	\$ 94,900	\$ 94,900	153	580	3.79	\$ 359,751	M - Construction Equipment
354	Surface Restoration	1976	42	\$ 375,474	\$ 375,474	15	\$	\$ -	255	790	3.10	\$ -	M - Construction Equipment
331	4" Gate Valve	1986	32	\$ 2,033	\$ 2,033	10	\$	\$ -	255	790	3.10	\$ -	W1 - Mains - Average all Types
331	8" Gate Valve	1986	32	\$ 5,467	\$ 5,467	10	\$	\$ -	255	790	3.10	\$ -	W1 - Mains - Average all Types
331	4" Ductile Iron Pipe	1986	32	\$ 6,203	\$ 3,054	65	\$ 3,149	\$ 3,149	255	790	3.10	\$ 9,756	W1 - Mains - Average all Types
331	6" Gate Valve	1986	32	\$ 11,829	\$ 5,824	65	\$ 6,006	\$ 6,006	255	790	3.10	\$ 18,606	W1 - Mains - Average all Types
331	12" Gate Valve	1986	32	\$ 14,137	\$ 6,960	65	\$ 7,177	\$ 7,177	255	790	3.10	\$ 22,235	W1 - Mains - Average all Types
331	8" Ductile Iron Pipe	1986	32	\$ 21,881	\$ 6,960	65	\$ 15,921	\$ 15,921	255	790	3.10	\$ 34,416	W1 - Mains - Average all Types
331	16" Gate Valve	1986	32	\$ 60,083	\$ 60,083	10	\$	\$ -	255	790	3.10	\$ -	W1 - Mains - Average all Types
331	12" Ductile Iron Pipe	1986	32	\$ 69,753	\$ 35,430	65	\$ 34,323	\$ 34,323	255	790	3.10	\$ 109,712	W1 - Mains - Average all Types
331	16" Ductile Iron Pipe	1986	32	\$ 74,481	\$ 37,813	65	\$ 36,668	\$ 36,668	255	790	3.10	\$ 117,148	W1 - Mains - Average all Types
331	8" Ductile Iron Pipe	1986	32	\$ 107,314	\$ 52,832	65	\$ 54,482	\$ 54,482	255	790	3.10	\$ 168,790	W1 - Mains - Average all Types
335	Fire Hydrant Assembly	1986	32	\$ 41,638	\$ 33,310	40	\$ 8,328	\$ 8,328	296	1,012	2.42	\$ 28,471	w1 - Hydrants Installed
354	Excavation And Aggregate Backfill	1986	32	\$ 127,752	\$ 62,893	65	\$ 64,859	\$ 64,859	280	580	2.07	\$ 134,350	M - Construction Equipment
354	Surface Restoration	1986	32	\$ 178,852	\$ 178,852	15	\$	\$ -	339	790	2.33	\$ -	M - Construction Equipment
331	8" Gate Valve	1986	22	\$ 25,828	\$ 25,828	10	\$	\$ -	339	790	2.33	\$ -	W1 - Mains - Average all Types
331	6" Gate Valve	1986	22	\$ 29,219	\$ 29,219	10	\$	\$ -	339	790	2.33	\$ -	W1 - Mains - Average all Types
331	8" Ductile Iron Pipe	1986	22	\$ 145,725	\$ 96,403	65	\$ 49,322	\$ 49,322	339	790	2.33	\$ 224,655	W1 - Mains - Average all Types
331	8" Ductile Iron Pipe	1986	22	\$ 160,477	\$ 64,469	65	\$ 96,008	\$ 96,008	339	790	2.33	\$ 293,646	W1 - Mains - Average all Types
335	Fire Hydrant Assembly	1986	22	\$ 96,674	\$ 53,171	40	\$ 43,503	\$ 43,503	418	1,012	2.42	\$ 105,524	w1 - Hydrants Installed
354	Excavation And Aggregate Backfill	1986	22	\$ 194,242	\$ 65,743	65	\$ 128,498	\$ 128,498	336	580	1.73	\$ 221,613	M - Construction Equipment
354	Surface Restoration	1986	22	\$ 271,939	\$ 271,939	15	\$	\$ -	494	790	1.60	\$ -	M - Construction Equipment
331	6" Gate Valve	2006	12	\$ 2,483	\$ 2,483	10	\$	\$ -	494	790	1.60	\$ -	W1 - Mains - Average all Types
331	10" Gate Valve	2006	12	\$ 6,305	\$ 6,305	10	\$	\$ -	494	790	1.60	\$ -	W1 - Mains - Average all Types
331	6" Ductile Iron Pipe	2006	12	\$ 19,687	\$ 3,634	65	\$ 16,052	\$ 16,052	494	790	1.60	\$ 25,670	W1 - Mains - Average all Types
331	12" Gate Valve	2006	12	\$ 53,599	\$ 53,599	10	\$	\$ -	494	790	1.60	\$ -	W1 - Mains - Average all Types
331	10" Ductile Iron Pipe	2006	12	\$ 59,906	\$ 59,906	10	\$	\$ -	494	790	1.60	\$ -	W1 - Mains - Average all Types
331	16" Ductile Iron Pipe	2006	12	\$ 66,387	\$ 55,761	65	\$ 10,626	\$ 10,626	494	790	1.60	\$ 89,173	W1 - Mains - Average all Types
331	16" Ductile Iron Pipe	2006	12	\$ 137,511	\$ 112,124	65	\$ 25,387	\$ 25,387	494	790	1.60	\$ 179,308	W1 - Mains - Average all Types
331	8" Gate Valve	2006	12	\$ 187,284	\$ 187,284	10	\$	\$ -	494	790	1.60	\$ -	W1 - Mains - Average all Types
331	12" Ductile Iron Pipe	2006	12	\$ 639,043	\$ 117,977	65	\$ 521,066	\$ 521,066	494	790	1.60	\$ 833,284	W1 - Mains - Average all Types
331	8" Ductile Iron Pipe	2006	12	\$ 1,225,236	\$ 226,197	65	\$ 999,039	\$ 999,039	494	790	1.60	\$ 1,597,653	W1 - Mains - Average all Types
335	Fire Hydrant Assembly	2006	12	\$ 314,307	\$ 220,015	40	\$ 94,292	\$ 94,292	647	1,012	1.56	\$ 344,135	w1 - Hydrants Installed
354	Excavation And Aggregate Backfill	2006	12	\$ 838,380	\$ 683,602	65	\$ 154,778	\$ 154,778	461	580	1.26	\$ 860,063	M - Construction Equipment
339	Surface Restoration	2006	12	\$ 1,173,731	\$ 938,985	15	\$ 234,746	\$ 234,746	461	1,26	1.26	\$ 295,342	M - Construction Equipment
339	Other Plant and Miscellaneous Equipment	2009	9	\$ 235,611	\$ 53,012	40	\$ 182,598	\$ 182,598	536	687	1.28	\$ 234,039	W1 - Structures and Improvements
334	Meters and Meters Installation	2015	3	\$ 6,000	\$ 6,000	25	\$	\$ -	709	750	1.06	\$ 5,585	W1 - Meter Installations
339	Other Plant and Miscellaneous Equipment	2015	3	\$ 2,190	\$ 2,190	25	\$	\$ -	709	106	10.6	\$ 2,049	W1 - Structures and Improvements
339	Other Plant and Miscellaneous Equipment	2015	3	\$ 2,365	\$ 2,365	25	\$	\$ -	646	687	1.06	\$ 2,213	W1 - Structures and Improvements
347	Miscellaneous Equipment	2015	3	\$ 49,059	\$ 49,059	20	\$	\$ -	737	797	1.08	\$ 49,074	W1 - Large treatment plant equipment
331	2016 Pine/Harrisburg Streets Replacement Project	2016	2	\$ 1,614,679	\$ 1,564,972	65	\$ 49,707	\$ 49,707	772	790	1.02	\$ 1,648,463	W1 - Mains - Average all Types
331	2017 Mulberry/Bassmer Replacement Project	2017	1	\$ 248,802	\$ 8,828	65	\$ 240,000	\$ 240,000	772	790	1.02	\$ 250,688	W1 - Mains - Average all Types
331	2017 Uglies Water Main Installation Project	2017	1	\$ 522,565	\$ 8,039	65	\$ 514,526	\$ 514,526	772	790	1.02	\$ 526,522	W1 - Mains - Average all Types
339	Other Plant and Miscellaneous Equipment	2017	1	\$ 3,133	\$ 3,133	25	\$	\$ -	671	687	1.02	\$ 3,060	W1 - Structures and Improvements
344	Laboratory Equipment	2017	1	\$ 9,288	\$ 464	20	\$ 8,824	\$ 8,824	785	797	1.02	\$ 8,958	W1 - Large treatment plant equipment
344	Laboratory Equipment	2017	1	\$ 14,040	\$ 702	20	\$ 13,338	\$ 13,338	785	797	1.02	\$ 13,542	W1 - Large treatment plant equipment
	Total			\$ 13,646,833	\$ 8,783,658.31		\$ 4,863,174.69	\$ 4,863,174.69				\$ 12,711,129	

Steelton Borough Authority
Calculation of Trended Original Cost Less Depreciation
of Operating Assets

NARUC Code	Asset	Original Year Installed / Purchase Date	Age	Estimated / Actual Original Cost	Useful Life	Accumulated Depreciation	Net Book Value	HW Index Value Orig	HW Index Value Present	HW Ratio	Trended Original Cost Less Depreciation	Notes
304	Building	1973	45	1,043,330.13	80	\$ 566,873.20	\$ 456,456.93	100	687	6.87	\$ 3,135,659	
304	WetWell	1973	45	\$ 25,001.17	80	\$ 14,063.16	\$ 10,938.01	100	687	6.87	\$ 75,144	
304	WetWell	1973	45	\$ 21,009.31	80	\$ 11,817.74	\$ 9,191.58	100	687	6.87	\$ 63,146	
304	WetWell	1973	45	\$ 3,362.07	20	\$ 3,362.07	\$ -					
304	WetWell	1973	45	\$ 777.54	25	\$ 777.54	\$ -					
304	WetWell	1973	45	\$ 840.52	25	\$ 840.52	\$ -					
304	WetWell	1973	45	\$ 185.30	25	\$ 185.30	\$ -					
304	WetWell	1973	45	\$ 2,699.59	25	\$ 2,699.59	\$ -					
304	Building	1973	45	\$ 23,110.61	40	\$ 23,110.61	\$ -					
304	Building	1973	45	\$ 294.30	15	\$ 294.30	\$ -					
304	Building	1973	45	\$ 251.91	25	\$ 251.91	\$ -					
304	Building	1973	45	\$ 105.37	25	\$ 105.37	\$ -					
304	Building	1973	45	\$ 2,268.43	25	\$ 2,268.43	\$ -					
304	Building	1973	45	\$ 472.34	25	\$ 472.34	\$ -					
304	Building	1973	45	\$ 257.97	25	\$ 257.97	\$ -					
304	Building	1973	45	\$ 525.63	15	\$ 525.63	\$ -					
304	Structure	1973	45	\$ 1,050.04	40	\$ 1,050.04	\$ -					
304	Structure	1973	45	\$ 209.52	40	\$ 209.52	\$ -					
304	Structure	1973	45	\$ 2,101.29	40	\$ 2,101.29	\$ -					
304	Structure	1973	45	\$ 78,722.86	80	\$ 44,281.61	\$ 34,441.25	100	687	6.87	\$ 236,611	
304	Building	1973	45	\$ 181.67	25	\$ 181.67	\$ -					
304	Building	1973	45	\$ 181.67	25	\$ 181.67	\$ -					
304	Structure	1973	45	\$ 4,201.38	40	\$ 4,201.38	\$ -					
304	Structure	1973	45	\$ 16,807.94	40	\$ 16,807.94	\$ -					
304	Structure	1973	45	\$ 42,018.63	80	\$ 23,635.48	\$ 18,383.15	100	687	6.87	\$ 126,292	
304	Structure	1973	45	\$ 1,575.67	25	\$ 1,575.67	\$ -					
304	Structure	1973	45	\$ 420.26	65	\$ 290.95	\$ 129.31	100	687	6.87	\$ 888	
304	Structure	1973	45	\$ 209.52	65	\$ 145.06	\$ 64.47	100	687	6.87	\$ 443	
304	Structure	1973	45	\$ 188.93	80	\$ 106.28	\$ 82.66	100	687	6.87	\$ 568	
306	Water Intake Structure	1973	45	\$ 420.26	25	\$ 420.26	\$ -					
309	Water Intake Line	1973	45	\$ 21,009.47	80	\$ 11,817.83	\$ 9,191.64	100	559	5.59	\$ 51,381	The original construction cost of the water treatment plant, booster station, and finished water storage tanks built in 1973 was \$2,527,558. The original construction cost per component is not known. W-1
309	Water Intake Line	1973	45	\$ 96,923.59	65	\$ 67,100.94	\$ 29,822.64	100	559	5.59	\$ 166,709	
309	Water Intake Line	1973	45	\$ 28,290.88	65	\$ 19,579.07	\$ 8,701.81	100	559	5.59	\$ 48,643	
309	Piping and Appurtenances	1973	45	\$ 8,676.47	25	\$ 8,676.47	\$ -					
309	Piping and Appurtenances	1973	45	\$ 181.67	65	\$ 125.77	\$ 55.90	100	790	7.90	\$ 442	
309	Piping and Appurtenances	1973	45	\$ 181.67	65	\$ 125.77	\$ 55.90	100	790	7.90	\$ 442	
309	Piping and Appurtenances	1973	45	\$ 363.34	25	\$ 363.34	\$ -					
309	Piping and Appurtenances	1973	45	\$ 363.34	25	\$ 363.34	\$ -					
309	Piping and Appurtenances	1973	45	\$ 363.34	25	\$ 363.34	\$ -					
309	Piping and Appurtenances	1973	45	\$ 363.34	25	\$ 363.34	\$ -					
309	Piping and Appurtenances	1973	45	\$ 363.34	25	\$ 363.34	\$ -					
311	WetWell	1973	45	\$ 37,817.25	20	\$ 37,817.25	\$ -					
311	Pumps	1973	45	\$ 563,672.11	20	\$ 563,672.11	\$ -					
311	Pumps	1973	45	\$ 3,060.50	20	\$ 3,060.50	\$ -					
311	Pumps	1973	45	\$ 14,706.64	20	\$ 14,706.64	\$ -					
320	Liquefied Gas Chlorine System	1973	45	\$ 168.35	40	\$ 168.35	\$ -					
320	Liquefied Gas Chlorine System	1973	45	\$ 3,831.99	40	\$ 3,831.99	\$ -					
320	Liquefied Gas Chlorine System	1973	45	\$ 2,715.33	40	\$ 2,715.33	\$ -					
320	Liquid Alum System	1973	45	\$ 735.15	40	\$ 735.15	\$ -					
320	Liquid Alum System	1973	45	\$ 4,104.49	40	\$ 4,104.49	\$ -					
320	Dry Lime System	1973	45	\$ 16,955.69	40	\$ 16,955.69	\$ -					
320	Dry Lime System	1973	45	\$ 3,027.80	40	\$ 3,027.80	\$ -					
320	Soda Ash System	1973	45	\$ 3,027.80	40	\$ 3,027.80	\$ -					
320	WTP Equipment	1973	45	\$ 37,218.96	25	\$ 37,218.96	\$ -					
330	Distribution Reservoirs	1973	45	\$ 413,410.07	45	\$ 413,410.07	\$ -					
330	Distribution Reservoirs	1973	45	\$ -	45	\$ -	\$ -					
330	Distribution Reservoirs	1973	45	\$ -	45	\$ -	\$ -					
330	Distribution Reservoirs	1973	45	\$ -	45	\$ -	\$ -					
330	Distribution Reservoirs	1973	45	\$ -	45	\$ -	\$ -					
330	Distribution Reservoirs	1973	45	\$ -	45	\$ -	\$ -					
334	WetWell	1973	45	\$ 1,229.29	25	\$ 1,229.29	\$ -					
334	Meters and Meters Installation	1973	45	\$ 3,767.36	25	\$ 3,767.36	\$ -					
348	Other	1973	45	\$ 1,090.01	15	\$ 1,090.01	\$ -					

Steelton Borough Authority
Calculation of Trended Original Cost Less Depreciation
of Operating Assets

NARUC Code	Asset	Original Year Installed / Purchase Date	Age	Estimated / Actual Original Cost	Useful Life	Accumulated Depreciation	Net Book Value	HW Index Value Orig	HW Index Value Present	HW Ratio	Trended Original Cost Less Depreciation	Notes
304	Structure	2010	8	See Notes								
304	Structure	2010	8	See Notes								
309	Piping and Appurtenances	2010	8	See Notes								
309	Piping and Appurtenances	2010	8	See Notes								
309	Piping and Appurtenances	2010	8	See Notes								
320	Wet Well	2010	8	See Notes								
320	WTP Equipment	2010	8	See Notes								
334	Meters	2010	8	See Notes								
336	Backflow Prevention Devices	2010	8	See Notes								
348	Other	2010	8	2,809,298.00	40	561,859.60	2,247,438.40	1,001	1,369	1.37	3,073,670	W1 - Clarifier Equipment Installed
304	Structure	2017	1	See Notes								
309	Piping and Appurtenances	2017	1	See Notes								
309	Piping and Appurtenances	2017	1	See Notes								
311	Pumps	2017	1	See Notes								
311	Pumps	2017	1	See Notes								
334	Meters and Meters Installation	2017	1	See Notes								
339	Other Plant and Miscellaneous Equipment	2017	1	2,548,862.00	45	56,641.82	2,492,240.18	671	687	1.02	2,551,668	W1 - Structures and Improvements
Total				\$ 21,455,028		\$ 14,100,852					\$ 22,243,034	

Component included in the \$2,959,000 construction cost of the 2010 water treatment plant improvement project. Work include refurbishing of the clarifier and filter units. This cost is shown in the "Clarification System" category.

Component included in the \$2,104,802 construction cost of the 2017 water treatment plant improvement project.

Steelton Borough Authority
Conclusion of Value using the Market Approach

Steelton Borough Authority

Application of Purchase Price to Customer Multiples to
Customer Count

<u>Based on Country- Wide Sales</u>		<u>Based on Pennsylvania Sales</u>
\$ 10,569,043		\$ 16,865,828
	<u>Midpoint</u>	
	\$ 13,717,435	

Application of Market-to-Book Ratios of Publicly-Traded
Water Utilities to Book Value of Assets

<u>Low</u>		<u>High</u>
\$ 34,702,197		\$ 55,416,349
	<u>Midpoint</u>	
	\$ 45,059,273	

Conclusion of Value using the Market Approach

\$ 29,388,354

Steelton Borough Authority
Market-to Book Ratios of Publicly-Traded Water Utilities
as of February 28, 2018

<u>Company Name</u>	<u>Market to Book Ratio at February 28, 2018</u>
American States Water Co.	3.930
American Water Works Co., Inc.	2.709
Aqua America, Inc.	3.278
California Water Service Group	2.760
Connecticut Water Service, Inc.	2.461
Middlesex Water Co.	2.644
SJW Corporation	2.568
York Water Co.	<u>3.166</u>
 Average	 <u><u>2.940</u></u>
 Median	 <u><u>2.735</u></u>
 Low	 <u><u>2.461</u></u>
 High	 <u><u>3.930</u></u>

Source: Bloomberg Professional Services

Steelton Borough Authority
Application of Market-to-Book Ratios to
the Book Value of Steelton Water Authority Assets

	<u>Water Assets</u>
Original Cost less Depreciation of Assets:	\$ 14,100,852
Average Market to Book Ratio of Publicly-Traded Water Utilities	2.940
Low Market to Book Ratio of Publicly-Traded Water Utilities	2.461
High Market to Book Ratio of Publicly-Traded Water Utilities	3.930
Indicated Market Value of Assets Based on Average Market-To Book Ratio:	\$ 41,449,455
Indicated Market Value of Water and Sewer Assets Based on Low Market-To Book Ratio:	\$ 34,702,197
Indicated Market Value of Water and Sewer Assets Based on High Market-To Book Ratio:	\$ 55,416,349
Indicated Market Value of Water and Sewer Assets Based on Midpoint of Market-to-Book Ratios:	\$ 45,059,273

Steelton Borough Authority
Comparable Water and Sewer Transactions
2015 to Present

Target State	Target	Buyer	Water Connections	Wastewater Connections	Implied Enterprise Value (\$000)	Implied Enterprise Value (\$000)/Customer	Date
AZ	Valencia Water Company, Inc.	City of Buckeye	6,719		55,198	8.22	3/17/2015
AZ	Willow Valley Water Company	EPCOR Water Arizona Inc.	1,600		2,270	1.42	3/24/2015
VA	Venter Heights Public Water System	Aqua Virginia, Inc.	400		85	0.21	5/5/2015
MO	City of Arnold's sanitary sewer system	Missouri-American Water Company, Inc.		8,800	13,200	1.50	5/22/2015
IN	Russiaville Water System	Indiana American	430		1,800	4.19	7/27/2015
PA	Robin Hood Lakes Water Company	Aqua Pennsylvania	210		231	1.10	7/30/2015
VA	Wintergreen Valley Utility Company	Aqua Virginia, Inc.	1,200	475	651	0.39	8/5/2015
LA	Total Environmental Solutions, Inc.	Utilities, Inc.	2,350	14,387	9,300	0.56	8/15/2015
LA	Peoples Water of Donaldsonville	Ascension Parrish	3,100		5,900	1.90	8/31/2015
TX	Union Hill Water Supply	Aqua Texas	500		356	0.71	9/18/2015
IN	American Suburban Utilities Water System	Indiana American	330		140	0.42	9/21/2015
PA	Wastewater System of Fairview Township	Pennsylvania-American Water Company, Inc.		3,912	16,800	4.29	12/22/2015
VA	Captain's Cove Utility Company	Aqua Virginia, Inc.	977	280	2,400	1.91	12/29/2015
PA	Superior Water Company, Inc.	Aqua America, Inc.	3,868		16,800	4.34	1/4/2016
IL	Dana/Long Point/Reading/Ancona Public Water District System	Illinois American	150		1,075	7.17	1/26/2016
IL	Village of Ransom	Illinois American	170		175	1.03	1/26/2016
PA	Scranton Sewer Authority	Pennsylvania-American Water Company, Inc.		31,000	195,000	6.29	3/3/2016
PA	Emlenton Area Municipal Authority	Aqua Pennsylvania		484	350	0.72	3/28/2016
IL	Eastwood Manor Water and Nunda Utility	Aqua Illinois, Inc.	530		1,500	2.83	4/20/2016
PA	Borough of New Cumberland Wastewater Assets	Pennsylvania-American Water Company, Inc.		3,100	23,000	7.42	5/5/2016
CT	The Heritage Village Water Company	Connecticut Water Service Inc.	4,867	3,040	20,700	2.62	5/10/2016
PA	McKeesport Wastewater System	Pennsylvania-American Water Company, Inc.		22,000	156,000	7.09	9/9/2016
PA	Tobyhanna Township	Aqua Pennsylvania		800	5,500	6.88	11/8/2016
PA	New Garden Township	Aqua Pennsylvania		2,106	29,500	14.01	12/15/2016
PA	Limerick Township	Aqua Pennsylvania		5,434	75,100	13.82	5/22/2017
IN	Georgetown Water	Indiana American	1300		6,400	4.92	11/17/2017
CT	Aquarion Water Company	Eversource Energy	226,000		1,675,000	7.41	12/4/2017
KY	Eastern Rockcastle Water Association	Kentucky American Water Co.	610		770	1.26	1/19/2018
IN	Charlestown Water System	Indiana American	2,898		13,404	4.63	3/14/2018
CT	Connecticut Water Service, Inc.	SJW Group	135,645	3,000	750,000	5.41	3/15/2018
PA	Exeter Township Wastewater	Pennsylvania-American Water Company, Inc.	-	9,000	96,000	10.67	3/31/2018

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Average: 4.37

PA Average: 6.97

Target State	Target	Water Connections	Wastewater Connections	Implied Enterprise Value (\$000) Based on Average Transaction Multiple	Implied Enterprise Value (\$000) Based on PA Transaction Multiple
PA	Steelton Borough Authority	2,421	-	\$ 10,569.043	\$ 16,865.828

Steelton Authority
Potential Purchase - DCF Analysis Model No. 1.1
Traditionally Financed Water/Wastewater Company

	2015		2016		2017		2018		2019	
	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE	AMOUNT	RATE
ASSUMPTIONS:										
Inflation	2.20%									
WACC	7.62%									
Rate Increase	10.00%									
Initial Rate Increase	30.00%									
Tax Rate	28.892%									
Water Test	\$50									
Chemical to Sales	3.90%									
DSIC CAP	7.50%									
REVENUES										
Interest Earnings	\$ 12,751	0.38%	\$ 14,147	0.49%	\$ 12,381	0.41%	\$ 12,500	0.45%	\$ 12,500	
Water Sales	\$ 3,294,011	97.13%	\$ 2,798,762	97.17%	\$ 2,536,647	89.28%	\$ 2,727,000	97.29%	\$ 2,727,000	
United Water Standby Service	\$ 18,425	0.54%	\$ 21,775	0.76%	\$ 20,100	0.71%	\$ 20,100	0.72%	\$ 21,000	
Water Test	\$ 475	0.01%	\$ 100	0.00%	\$ 150	0.01%	\$ 200	0.01%	\$ 250	
Water Taps & Materials	\$ 4,570	0.13%	\$ 675	0.02%	\$ 471	0.02%	\$ 2,600	0.09%	\$ 4,000	
Service Charges	\$ 5,560	0.16%	\$ 4,878	0.16%	\$ 5,472	0.19%	\$ 5,500	0.20%	\$ 5,500	
Property Transfer Fee - Water	\$ 1,038	0.03%	\$ 1,063	0.04%	\$ 1,187	0.04%	\$ 1,000	0.04%	\$ 1,000	
Property Posting Fees - Water	\$ 6,438	0.19%	\$ 6,781	0.24%	\$ 6,476	0.23%	\$ 5,500	0.20%	\$ 6,500	
Interest Charges / Penalties	\$ 21,587	0.63%	\$ 31,064	1.08%	\$ 28,845	1.02%	\$ 29,000	1.00%	\$ 30,000	
Water NSF Charges	\$ 350	0.01%	\$ 550	0.02%	\$ 484	0.02%	\$ 400	0.01%	\$ 400	
Liam Processing Fees	\$ 48	0.00%	\$ 24	0.00%	\$ 8	0.00%	\$ 20	0.00%	\$ 30	
PA One Call Refund	\$ 379	0.01%	\$ 337	0.01%	\$ 334	0.01%	\$ 375	0.01%	\$ 375	
Miscellaneous Revenues	\$ 15,796	0.46%	\$ 200	0.01%	\$ 228,539	8.05%	\$ -	0.00%	\$ -	
DSIC Revenues										
TOTAL REVENUES	\$ 3,391,378		\$ 2,880,141		\$ 2,840,095		\$ 2,803,155		\$ 2,808,615	
EXPENSES										
Distribution										
Office Supplies	\$ 494	0.01%	\$ 685	0.02%	\$ 531	0.02%	\$ 1,500	0.05%	\$ 750	
Meals - Water Breaks	\$ 42	0.00%	\$ -	0.00%	\$ 100	0.00%	\$ -	0.00%	\$ -	
Vehicle - Gasoline	\$ 5,049	0.15%	\$ 4,308	0.15%	\$ 4,363	0.15%	\$ 5,000	0.18%	\$ 5,110	
Vehicle Fuel - Diesel	\$ 833	0.02%	\$ 540	0.02%	\$ 320	0.01%	\$ 1,500	0.05%	\$ 500	
Supplies - Road Salt/Anti-Skid/Stones	\$ 25,455	0.75%	\$ 10,028	0.35%	\$ 11,005	0.39%	\$ 15,000	0.54%	\$ 15,330	
Water & Related Equipment	\$ 40,032	1.18%	\$ 28,319	0.98%	\$ 29,096	1.02%	\$ 35,000	1.25%	\$ 35,770	
Small Tools & Minor Equip	\$ 5,551	0.16%	\$ 3,257	0.11%	\$ 6,885	0.24%	\$ 4,000	0.14%	\$ 4,088	
Machinery & Equipment	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Leak Detection Services	\$ 7,179	0.21%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Reserve - Security	\$ 4,400	0.13%	\$ 1,300	0.05%	\$ -	0.00%	\$ 500	0.02%	\$ 500	
Reserve - Repair/Maintenance	\$ 1,217	0.04%	\$ 23,059	0.80%	\$ 5,668	0.20%	\$ 500	0.02%	\$ 500	
Radio Equipment Maintenance	\$ -	0.00%	\$ 189	0.01%	\$ -	0.00%	\$ -	0.00%	\$ -	
Repair & Maint. - System	\$ 8,949	0.26%	\$ 12,443	0.43%	\$ 8,323	0.29%	\$ 15,000	0.54%	\$ 15,330	
Repair & Maint. - Bldg	\$ 1,975	0.06%	\$ 1,051	0.04%	\$ 724	0.03%	\$ 700	0.03%	\$ 700	
Repair & Maint. Mach/Equip	\$ 5,947	0.18%	\$ 6,411	0.22%	\$ 1,312	0.05%	\$ 1,300	0.05%	\$ 1,359	
Contracted Services	\$ 8,797	0.26%	\$ 8,797	0.30%	\$ 12,666	0.45%	\$ 12,666	0.45%	\$ 12,000	
Vehicle Maintenance	\$ 11,764	0.35%	\$ 16,557	0.57%	\$ 14,157	0.50%	\$ 12,000	0.43%	\$ 12,264	
Capital Purchases	\$ 136,330	4.02%	\$ 236,144	8.19%	\$ 215,470	7.59%	\$ 120,000	4.28%	\$ 130,000	
Capitol Lease - Vehicle	\$ 23,830	0.70%	\$ 23,830	0.83%	\$ 1,375	0.05%	\$ 1,500	0.05%	\$ -	
Administration - Water										
Transfer to General Fund	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Authority Services	\$ 480	0.01%	\$ 420	0.01%	\$ 450	0.01%	\$ 480	0.02%	\$ 480	
Salaries - Administration	\$ 68,795	2.03%	\$ 61,593	2.14%	\$ 65,924	2.32%	\$ 66,423	2.37%	\$ 67,884	
Secretary/Assistant Serv.	\$ 413	0.01%	\$ 450	0.02%	\$ 450	0.02%	\$ 460	0.02%	\$ 460	
Wages - Clerical	\$ 36,921	1.09%	\$ 39,244	1.36%	\$ 43,353	1.53%	\$ 42,711	1.52%	\$ 43,651	
Admin Benefit Bonus Payment	\$ -	0.00%	\$ 124	0.00%	\$ 112	0.00%	\$ -	0.00%	\$ -	
Social Security	\$ 8,077	0.24%	\$ 7,824	0.28%	\$ 8,277	0.29%	\$ 8,420	0.30%	\$ 8,605	
Office Supplies	\$ 1,728	0.05%	\$ 1,658	0.06%	\$ 1,495	0.05%	\$ 2,500	0.09%	\$ 2,555	
Paying Agent Service	\$ 524	0.02%	\$ 524	0.02%	\$ 53	0.00%	\$ 83	0.00%	\$ 83	
Codification	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Auditing	\$ 10,245	0.30%	\$ 8,726	0.31%	\$ 17,085	0.60%	\$ 15,725	0.56%	\$ 15,000	
Consulting	\$ 49,868	1.49%	\$ 48,347	1.68%	\$ 48,252	1.70%	\$ 76,200	2.72%	\$ 60,200	
Engineering	\$ 146,212	4.31%	\$ 337,773	11.73%	\$ 179,567	6.32%	\$ 150,000	5.35%	\$ 150,000	
Legal	\$ 37,417	1.10%	\$ 24,417	0.85%	\$ 32,711	1.16%	\$ 30,000	1.07%	\$ 30,650	
Bank Charges	\$ -	0.00%	\$ -	0.00%	\$ 33	0.00%	\$ -	0.00%	\$ -	
Data Processing	\$ 5,570	0.16%	\$ 6,840	0.24%	\$ 8,116	0.28%	\$ 8,500	0.30%	\$ 8,607	
Debit/Credit Card Fees	\$ 2,816	0.08%	\$ 3,679	0.13%	\$ 2,881	0.10%	\$ 3,200	0.11%	\$ 3,270	
Telephone	\$ 10,496	0.31%	\$ 9,868	0.34%	\$ 10,414	0.37%	\$ 10,000	0.36%	\$ 10,220	
Internet/Web Services	\$ 310	0.01%	\$ 178	0.01%	\$ 120	0.01%	\$ 100	0.01%	\$ 100	
Postage	\$ 8,007	0.24%	\$ 6,042	0.21%	\$ 4,264	0.15%	\$ 7,000	0.25%	\$ 5,000	
Other	\$ -	0.00%	\$ -	0.00%	\$ 30	0.00%	\$ -	0.00%	\$ -	
Travel Expense	\$ 57	0.00%	\$ 117	0.00%	\$ 221	0.01%	\$ 125	0.00%	\$ 128	
Advertising	\$ 3,361	0.10%	\$ 3,866	0.13%	\$ 101	0.00%	\$ 2,500	0.09%	\$ 2,550	
Printing	\$ 1,620	0.05%	\$ 1,026	0.04%	\$ 870	0.03%	\$ 700	0.03%	\$ 700	
General Liability Insurance	\$ 16,239	0.48%	\$ 16,761	0.58%	\$ 17,794	0.63%	\$ 17,500	0.62%	\$ 17,885	
Bonding	\$ 2,153	0.06%	\$ 2,153	0.08%	\$ 1,748	0.06%	\$ 2,000	0.07%	\$ 1,944	
Workman's Comp	\$ 337	0.01%	\$ 224	0.01%	\$ 182	0.01%	\$ 280	0.01%	\$ 286	
Vehicle Insurance	\$ 8,073	0.24%	\$ 6,771	0.24%	\$ 8,912	0.31%	\$ 9,000	0.33%	\$ 9,400	
Repair & Maint. - Office Equip	\$ -	0.00%	\$ -	0.00%	\$ 159	0.01%	\$ 300	0.01%	\$ 307	
Dues & Subscriptions	\$ 1,911	0.06%	\$ 2,957	0.10%	\$ 4,239	0.15%	\$ 3,000	0.11%	\$ 3,066	
Contracted Services	\$ 113	0.00%	\$ 247	0.01%	\$ 448	0.02%	\$ 500	0.02%	\$ 500	
Seminars/Educational Exp.	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Capital Lease - Land	\$ 6,070	0.18%	\$ 6,161	0.21%	\$ 5,427	0.19%	\$ 5,000	0.18%	\$ 5,000	
Capital Lease - Vehicle	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Operating										
Water Operating Admin Salaries	\$ 32,985	0.97%	\$ 32,985	0.00%	\$ 133,644	4.71%	\$ 173,400	6.18%	\$ 177,215	
Wages	\$ 165,571	4.88%	\$ 176,123	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Summer Wages	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Wages - OT	\$ 33,445	0.99%	\$ 30,520	0.00%	\$ 10,340	0.36%	\$ 32,400	1.16%	\$ 33,113	
Vehicle Maintenance Wages	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Dental Insurance	\$ 4,443	0.13%	\$ 4,080	0.14%	\$ 3,598	0.13%	\$ 4,600	0.17%	\$ 4,763	
Disability Insurance	\$ 1,025	0.03%	\$ 1,285	0.04%	\$ 1,124	0.04%	\$ 1,150	0.05%	\$ 1,159	
Vision Insurance	\$ 539	0.02%	\$ 490	0.02%	\$ 407	0.01%	\$ 520	0.02%	\$ 531	
Hospitalization	\$ 78,849	2.33%	\$ 85,513	0.97%	\$ 73,200	2.58%	\$ 98,110	3.50%	\$ 100,288	
Operating Benefit Bonus Payment	\$ 1,338	0.04%	\$ 2,236	0.08%	\$ -	0.00%	\$ -	0.00%	\$ -	
Life Insurance	\$ 2,265	0.07%	\$ 2,236	0.08%	\$ 2,266	0.07%	\$ 2,260	0.08%	\$ 2,260	
Pension	\$ 27,095	0.80%	\$ 7,156	0.25%	\$ 3,769	0.13%	\$ 11,038	0.39%	\$ 11,281	
Social Security	\$ 16,309	0.48%	\$ 15,819	0.55%	\$ 11,610	0.41%	\$ 15,740	0.56%	\$ 16,090	
Unemployment Insurance	\$ 5,271	0.16%	\$ 5,433	0.19%	\$ 4,492	0.16%	\$ 4,500	0.20%	\$ 4,574	
Prescription	\$ 25,419	0.75%	\$ 28,361	0.98%	\$ 24,920	0.88%	\$ 33,532	1.20%	\$ 34,270	
Uniform Clothing Allowance	\$ -	0.00%	\$ 29	0.00%	\$ 158	0.00%	\$ 150	0.01%	\$ 150	
Uniforms (Boots)	\$ 810	0.02%	\$ 1,363	0.05%	\$ 770	0.03%	\$ 3,600	0.13%	\$ 3,679	
CDL Random Drug Testing	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Public Officers Liab. Insur	\$ 2,264	0.07%	\$ 2,520	0.09%	\$ 2,520	0.09%	\$ 2,600	0.09%	\$ 2,657	
Workman's Comp	\$ 20,669	0.61%	\$ 16,030	0.52%	\$ 10,110	0.36%	\$ 14,976	0.53%	\$ 15,305	
Contracted Grass Cutting Services	\$ 3,845	0.11%	\$ 4,300	0.15%	\$ 2,848	0.10%	\$ 2,700	0.10%	\$ 2,750	
Capital Purchases	\$ -	0.00%	\$ 3,428	0.12%	\$ -	0.00%	\$ -	0.00%	\$ -	
Capital Lease	\$ 2,700	0.08%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Capital Lease - Vehicle	\$ 3,428	0.10%	\$ -	0.00%	\$ -	0.00%	\$ -	0.00%	\$ -	
Treatment Plant										
Filtration Admin Wages	\$ 43,716	1.29%	\$ 57,278	1.99%	\$ 57,302	2.02%	\$ 59,095	2.11%	\$ 60,395	
Filtration Operator Wages	\$ 191,103	5.63%	\$ 191,349	6.64%	\$ 191,349	6.64%	\$ 203,013	7.24%	\$ 207,479	
Filtration Operator Wages OT	\$ 43,373	1.28%	\$ 49,327	1.71%	\$ 53,037	1.87%	\$ 54,292	1.94%	\$ 55,486	
Dental Insurance	\$ 4,259	0.13%	\$ 4,371	0.15%	\$ 4,426	0.16%	\$ 4,559	0.16%	\$ 4,658	
Disability Insurance	\$ 638	0.02%	\$ 1,044	0.04%	\$ 1,080	0.04%	\$ 1,080	0.04%	\$ 1,104	
Vision Insurance	\$ 481</									

Steeleton Authority
Potential Purchase - DCF Analysis Model No. 1.1
Traditionally Financed Water/Wastewater Company

Assumptions:	
Inflation	2.20%
WACC	7.30%
Rate Increase	10.00%
Initial Rate Increase	30.00%
Tax Rate	28.80%
Meter Test	500
Chemical to Sales	3.80%
DSIC CAP	7.50%

	PROJECTED 2020	PROJECTED 2021	PROJECTED 2022	PROJECTED 2023	PROJECTED 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029	PROJECTED 2030	PROJECTED 2031	PROJECTED 2032	PROJECTED 2033	PROJECTED 2034
	RATE STAYOUT OVER														
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
REVENUES															
Interest Earnings	\$ 12,775.00	\$ 13,056.00	\$ 13,343.00	\$ 13,637.00	\$ 13,937.00	\$ 14,243.00	\$ 14,557.00	\$ 14,877.00	\$ 15,204.00	\$ 15,539.00	\$ 15,881.00	\$ 16,230.00	\$ 16,587.00	\$ 16,952.00	\$ 17,325.00
Water Sales	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00	\$ 2,727,000.00
Water Meter Test	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00
Water Taps & Materials	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00	\$ 4,000.00
Service Charges	\$ 5,621.00	\$ 5,745.00	\$ 5,871.00	\$ 6,000.00	\$ 6,132.00	\$ 6,267.00	\$ 6,405.00	\$ 6,546.00	\$ 6,691.00	\$ 6,839.00	\$ 6,991.00	\$ 7,147.00	\$ 7,307.00	\$ 7,471.00	\$ 7,639.00
Property Transfer Fee - Water	\$ 1,022.00	\$ 1,044.00	\$ 1,067.00	\$ 1,091.00	\$ 1,115.00	\$ 1,139.00	\$ 1,165.00	\$ 1,190.00	\$ 1,216.00	\$ 1,243.00	\$ 1,270.00	\$ 1,298.00	\$ 1,327.00	\$ 1,356.00	\$ 1,386.00
Property Posting Fees - Water	\$ 6,643.00	\$ 6,789.00	\$ 6,936.00	\$ 7,084.00	\$ 7,234.00	\$ 7,387.00	\$ 7,542.00	\$ 7,700.00	\$ 7,861.00	\$ 8,025.00	\$ 8,192.00	\$ 8,362.00	\$ 8,535.00	\$ 8,711.00	\$ 8,890.00
Interest Charges / Penalties	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00
Water NSF Charges	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00	\$ 400.00
Loan Processing Fees	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00	\$ 30.00
PA One Call Refund	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00	\$ 375.00
Miscellaneous Revenues	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DSIC Revenues	\$ 28,804.00	\$ 58,364.00	\$ 88,512.00	\$ 119,234.00	\$ 150,814.00	\$ 182,362.00	\$ 213,887.00	\$ 245,398.00	\$ 276,895.00	\$ 308,378.00	\$ 340,847.00	\$ 373,302.00	\$ 405,744.00	\$ 438,174.00	\$ 470,593.00
TOTAL REVENUES	\$ 2,838,552.00	\$ 2,869,147.00	\$ 2,900,414.00	\$ 2,932,368.00	\$ 2,964,512.00	\$ 2,996,751.00	\$ 3,029,195.00	\$ 3,061,844.00	\$ 3,094,698.00	\$ 3,127,757.00	\$ 3,161,021.00	\$ 3,194,490.00	\$ 3,228,165.00	\$ 3,262,047.00	\$ 3,296,136.00
EXPENSES															
Distribution															
Office Supplies	\$ 767.00	\$ 783.00	\$ 801.00	\$ 818.00	\$ 836.00	\$ 855.00	\$ 873.00	\$ 893.00	\$ 912.00	\$ 932.00	\$ 953.00	\$ 974.00	\$ 995.00	\$ 1,017.00	\$ 1,040.00
Meets - Water Breaks	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Vehicle - Gasoline	\$ 5,222.00	\$ 5,337.00	\$ 5,455.00	\$ 5,575.00	\$ 5,697.00	\$ 5,823.00	\$ 5,951.00	\$ 6,082.00	\$ 6,216.00	\$ 6,352.00	\$ 6,491.00	\$ 6,632.00	\$ 6,775.00	\$ 6,921.00	\$ 7,069.00
Vehicle Fuel - Diesel	\$ 511.00	\$ 522.00	\$ 534.00	\$ 545.00	\$ 557.00	\$ 569.00	\$ 582.00	\$ 595.00	\$ 608.00	\$ 622.00	\$ 635.00	\$ 649.00	\$ 663.00	\$ 677.00	\$ 691.00
Supplies - Road Salt/Anti-Skid/Stones	\$ 16,867.00	\$ 16,912.00	\$ 16,958.00	\$ 17,004.00	\$ 17,051.00	\$ 17,100.00	\$ 17,148.00	\$ 17,197.00	\$ 17,246.00	\$ 17,295.00	\$ 17,345.00	\$ 17,394.00	\$ 17,444.00	\$ 17,493.00	\$ 17,543.00
Water & Related Equipment	\$ 36,567.00	\$ 37,361.00	\$ 38,163.00	\$ 38,973.00	\$ 39,791.00	\$ 40,617.00	\$ 41,450.00	\$ 42,291.00	\$ 43,139.00	\$ 44,005.00	\$ 44,878.00	\$ 45,759.00	\$ 46,648.00	\$ 47,545.00	\$ 48,449.00
Small Tools & Minor Equip	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Machinery & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Leak Detection Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reservoir - Security	\$ 511.00	\$ 522.00	\$ 534.00	\$ 545.00	\$ 557.00	\$ 570.00	\$ 582.00	\$ 595.00	\$ 608.00	\$ 622.00	\$ 635.00	\$ 649.00	\$ 663.00	\$ 677.00	\$ 691.00
Reservoir - Repairs/Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Radio Equipment Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair & Maint. - System	\$ 15,667.00	\$ 16,012.00	\$ 16,364.00	\$ 16,724.00	\$ 17,090.00	\$ 17,463.00	\$ 17,842.00	\$ 18,227.00	\$ 18,618.00	\$ 19,015.00	\$ 19,418.00	\$ 19,826.00	\$ 20,240.00	\$ 20,660.00	\$ 21,086.00
Repair & Maint. - Bldg	\$ 2,644.00	\$ 2,709.00	\$ 2,776.00	\$ 2,845.00	\$ 2,916.00	\$ 2,989.00	\$ 3,064.00	\$ 3,141.00	\$ 3,220.00	\$ 3,301.00	\$ 3,384.00	\$ 3,469.00	\$ 3,555.00	\$ 3,643.00	\$ 3,733.00
Repair & Maint. Mach/Equip	\$ 1,368.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00	\$ 1,388.00
Contracted Lab Services	\$ 16,352.00	\$ 16,712.00	\$ 17,079.00	\$ 17,453.00	\$ 17,834.00	\$ 18,221.00	\$ 18,614.00	\$ 19,013.00	\$ 19,418.00	\$ 19,829.00	\$ 20,245.00	\$ 20,667.00	\$ 21,094.00	\$ 21,526.00	\$ 21,963.00
Vehicle Maintenance	\$ 12,534.00	\$ 12,810.00	\$ 13,091.00	\$ 13,379.00	\$ 13,674.00	\$ 13,975.00	\$ 14,282.00	\$ 14,595.00	\$ 14,914.00	\$ 15,239.00	\$ 15,570.00	\$ 15,907.00	\$ 16,250.00	\$ 16,600.00	\$ 16,957.00
Capital Purchases	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Lease - Vehicle	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administration - Water															
Transfer to General Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Authority Services	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00	\$ 480.00
Salaries - Administration	\$ 69,378.00	\$ 70,904.00	\$ 72,444.00	\$ 74,000.00	\$ 75,572.00	\$ 77,160.00	\$ 78,765.00	\$ 80,387.00	\$ 82,026.00	\$ 83,682.00	\$ 85,354.00	\$ 87,043.00	\$ 88,749.00	\$ 90,473.00	\$ 92,215.00
Secretary/Assistant Serv.	\$ 450.00	\$ 459.00	\$ 468.00	\$ 477.00	\$ 486.00	\$ 495.00	\$ 504.00	\$ 513.00	\$ 522.00	\$ 531.00	\$ 540.00	\$ 549.00	\$ 558.00	\$ 567.00	\$ 576.00
Wages - Clerical	\$ 44,611.00	\$ 45,592.00	\$ 46,583.00	\$ 47,584.00	\$ 48,596.00	\$ 49,619.00	\$ 50,653.00	\$ 51,698.00	\$ 52,754.00	\$ 53,821.00	\$ 54,898.00	\$ 55,986.00	\$ 57,084.00	\$ 58,193.00	\$ 59,313.00
Admin Benefit Bonus Payment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Security	\$ 8,795.00	\$ 8,988.00	\$ 9,186.00	\$ 9,388.00	\$ 9,594.00	\$ 9,804.00	\$ 10,017.00	\$ 10,233.00	\$ 10,451.00	\$ 10,672.00	\$ 10,896.00	\$ 11,123.00	\$ 11,353.00	\$ 11,586.00	\$ 11,822.00
Office Supplies	\$ 2,611.00	\$ 2,669.00	\$ 2,727.00	\$ 2,785.00	\$ 2,844.00	\$ 2,903.00	\$ 2,962.00	\$ 3,021.00	\$ 3,081.00	\$ 3,141.00	\$ 3,201.00	\$ 3,261.00	\$ 3,321.00	\$ 3,381.00	\$ 3,441.00
Paying Agent Service	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00	\$ 83.00
Codification	\$ 15,330.00	\$ 15,897.00	\$ 16,472.00	\$ 17,054.00	\$ 17,643.00	\$ 18,239.00	\$ 18,842.00	\$ 19,452.00	\$ 20,068.00	\$ 20,690.00	\$ 21,318.00	\$ 21,952.00	\$ 22,592.00	\$ 23,238.00	\$ 23,890.00
Auditing	\$ 51,100.00	\$ 52,294.00	\$ 53,513.00	\$ 54,757.00	\$ 56,027.00	\$ 57,322.00	\$ 58,642.00	\$ 60,000.00	\$ 61,395.00	\$ 62,828.00	\$ 64,300.00	\$ 65,811.00	\$ 67,361.00	\$ 68,950.00	\$ 70,578.00
Consulting	\$ 153,300.00	\$ 156,673.00	\$ 160,119.00	\$ 163,640.00	\$ 167,237.00	\$ 170,911.00	\$ 174,663.00	\$ 178,494.00	\$ 182,405.00	\$ 186,397.00	\$ 190,470.00	\$ 194,624.00	\$ 198,859.00	\$ 203,175.00	\$ 207,573.00
Legal	\$ 31,355.00	\$ 32,004.00	\$ 32,726.00	\$ 33,481.00	\$ 34,270.00	\$ 35,094.00	\$ 35,954.00	\$ 36,850.00	\$ 37,782.00	\$ 38,751.00	\$ 39,757.00	\$ 40,801.00	\$ 41,883.00	\$ 42,994.00	\$ 44,134.00
Bank Charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Data Processing	\$ 8,679.00	\$ 8,873.00	\$ 9,071.00	\$ 9,273.00	\$ 9,479.00	\$ 9,689.00	\$ 9,899.00	\$ 10,112.00	\$ 10,328.00	\$ 10,547.00	\$ 10,769.00	\$ 10,994.00	\$ 11,221.00	\$ 11,451.00	\$ 11,684.00
Debit/Credit Card Fees	\$ 3,342.00	\$ 3,416.00	\$ 3,491.00	\$ 3,566.00	\$ 3,642.00	\$ 3,720.00	\$ 3,800.00	\$ 3,882.00	\$ 3,965.00	\$ 4,050.00	\$ 4,137.00	\$ 4,226.00	\$ 4,317.00	\$ 4,410.00	\$ 4,504.00
Telephone	\$ 10,445.00	\$ 10,611.00	\$ 10,780.00	\$ 10,952.00	\$ 11,127.00	\$ 11,305.00	\$ 11,486.00	\$ 11,670.00	\$ 11,857.00	\$ 12,047.00	\$ 12,240.00	\$ 12,436.00	\$ 12,635.00	\$ 12,837.00	\$ 13,041.00
Internet/Web Services	\$ 261.00	\$ 271.00	\$ 281.00	\$ 291.00	\$ 301.00	\$ 311.00	\$ 321.00	\$ 331.00	\$ 341.00	\$ 351.00	\$ 361.00	\$ 371.00	\$ 381.00	\$ 391.00	\$ 401.00
Postage	\$ 5,110.00	\$ 5,222.00	\$ 5,337.00	\$ 5,455.00	\$ 5,575.00	\$ 5,697.00	\$ 5,823.00	\$ 5,951.00	\$ 6,082.00	\$ 6,216.00	\$ 6,352.				

Steelton Authority
Potential Purchases - DCF Analysis Model No. 1.1
Traditionally Financed Water/Wastewater Company

Assumptions:
Inflation 2.00%
WACC 7.52%
Rate Increase 10.00%
Tax Rate 28.862%
Meter Test \$50
Chemicals Sales 3.80%
DSIC CAP 7.50%

	2015	ACTUAL 2016	2017	BUDGET 2018	PROJECTED 2019
REVENUES					
Interest Earnings	\$ 12,751 0.38%	\$ 14,147 0.49%	\$ 12,381 0.44%	\$ 12,500 0.45%	\$ 12,500
Water Sales	\$ 2,284,011 97.13%	\$ 2,798,401 97.17%	\$ 2,535,647 99.28%	\$ 2,727,000 97.29%	\$ 2,727,000
United Water Standby Service	\$ 18,425 0.54%	\$ 21,775 0.76%	\$ 20,100 0.71%	\$ 20,100 0.72%	\$ 21,000
Meter Test	\$ 475 0.01%	\$ 100 0.00%	\$ 150 0.01%	\$ 200 0.01%	\$ 250
Water Taps & Materials	\$ 4,670 0.13%	\$ 675 0.02%	\$ 471 0.02%	\$ 2,600 0.09%	\$ 4,000
Service Charges	\$ 5,550 0.16%	\$ 4,678 0.16%	\$ 5,472 0.19%	\$ 5,500 0.20%	\$ 5,500
Property Transfer Fee - Water	\$ 1,038 0.03%	\$ 871 0.03%	\$ 1,187 0.04%	\$ 1,000 0.04%	\$ 1,000
Property Posting Fees - Water	\$ 6,438 0.19%	\$ 6,781 0.24%	\$ 6,476 0.23%	\$ 5,500 0.20%	\$ 6,500
Interest Charges / Penalties	\$ 31,587 0.93%	\$ 31,191 1.08%	\$ 29,845 1.02%	\$ 29,000 1.00%	\$ 30,000
Water NSF Charges	\$ 350 0.01%	\$ 500 0.02%	\$ 484 0.02%	\$ 400 0.01%	\$ 400
Lean Processing Fees	\$ 48 0.00%	\$ 24 0.00%	\$ 40 0.00%	\$ 20 0.00%	\$ 30
PA One Call Refund	\$ 379 0.01%	\$ 337 0.01%	\$ 334 0.01%	\$ 375 0.01%	\$ 375
Miscellaneous Revenues	\$ 15,756 0.46%	\$ 206 0.01%	\$ 228,539 8.95%	\$ - 0.00%	\$ -
DSIC Revenues					
TOTAL REVENUES	\$ 3,391,378	\$ 2,880,141	\$ 2,840,995	\$ 2,803,155	\$ 2,808,615
EXPENSES					
Distribution					
Office Supplies	\$ 494 0.01%	\$ 685 0.02%	\$ 531 0.02%	\$ 1,500 0.05%	\$ 750
Media - Water Breaks	\$ 42 0.00%	\$ - 0.00%	\$ - 0.00%	\$ 100 0.00%	\$ -
Vehicle - Gasoline	\$ 5,049 0.15%	\$ 4,308 0.15%	\$ 4,363 0.15%	\$ 5,000 0.18%	\$ 5,110
Vehicle Fuel - Diesel	\$ 853 0.02%	\$ 540 0.02%	\$ 320 0.01%	\$ 1,500 0.05%	\$ 500
Supplies - Road Salt/Ans-Skid/Stones	\$ 25,455 0.73%	\$ 10,028 0.35%	\$ 11,005 0.39%	\$ 15,000 0.54%	\$ 15,330
Water & Related Equipment	\$ 40,052 1.18%	\$ 28,319 0.98%	\$ 29,096 1.02%	\$ 35,000 1.25%	\$ 35,770
Small Tools & Minor Equip	\$ 5,551 0.16%	\$ 3,257 0.11%	\$ 6,885 0.24%	\$ 4,000 0.14%	\$ 4,688
Machinery & Equipment	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Leak Detection Services	\$ 7,179 0.21%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Reservoir - Security	\$ 4,400 0.13%	\$ 1,300 0.05%	\$ - 0.00%	\$ 500 0.02%	\$ 500
Reservoir - Repairs/Maintenance	\$ 1,217 0.04%	\$ 23,059 0.80%	\$ 6,665 0.23%	\$ 500 0.02%	\$ 500
Radio Equipment/Maintenance	\$ - 0.00%	\$ 189 0.01%	\$ - 0.00%	\$ - 0.00%	\$ -
Repair & Maint. - System	\$ 8,349 0.25%	\$ 12,443 0.43%	\$ 8,349 0.29%	\$ 16,330 0.58%	\$ 16,330
Repair & Maint. - Bldg	\$ 1,975 0.06%	\$ 1,065 0.04%	\$ 724 0.03%	\$ 3,000 0.11%	\$ 2,000
Repair & Maint. Mach/Equip	\$ 5,947 0.18%	\$ 6,411 0.22%	\$ 1,312 0.05%	\$ 1,300 0.05%	\$ 1,329
Contracted Services	\$ 8,787 0.26%	\$ 10,401 0.36%	\$ 10,966 0.38%	\$ 18,000 0.57%	\$ 18,000
Vehicle Maintenance	\$ 11,764 0.33%	\$ 16,557 0.57%	\$ 14,157 0.50%	\$ 12,000 0.43%	\$ 12,264
Capital Purchases	\$ 136,330 4.02%	\$ 234,144 8.13%	\$ 216,470 7.59%	\$ 126,470 4.51%	\$ -
Capitol Lease - Vehicle	\$ 23,830 0.70%	\$ 23,830 0.83%	\$ 1,375 0.05%	\$ 1,500 0.05%	\$ -
Administration - Water					
Transfer to General Fund	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Authority Services	\$ 480 0.01%	\$ 420 0.01%	\$ 450 0.02%	\$ 480 0.02%	\$ 480
Salaries - Administration	\$ 68,795 2.03%	\$ 61,993 2.14%	\$ 69,924 2.32%	\$ 66,423 2.37%	\$ 67,884
Secretary/Assistant Serv	\$ 413 0.01%	\$ 420 0.01%	\$ 400 0.01%	\$ 450 0.02%	\$ 460
Wages - Clerical	\$ 36,921 1.08%	\$ 39,244 1.38%	\$ 43,353 1.53%	\$ 42,711 1.52%	\$ 43,651
Admin Benefit Bonus Payment	\$ - 0.00%	\$ 124 0.00%	\$ 112 0.00%	\$ - 0.00%	\$ -
Social Security	\$ 8,077 0.24%	\$ 7,624 0.26%	\$ 8,277 0.29%	\$ 8,420 0.30%	\$ 8,605
Office Supplies	\$ 1,728 0.05%	\$ 1,658 0.06%	\$ 1,495 0.05%	\$ 2,500 0.09%	\$ 2,565
Paying Agent Service	\$ 524 0.02%	\$ 83 0.00%	\$ 83 0.00%	\$ 83 0.00%	\$ 83
Codification	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Auditing	\$ 19,245 0.56%	\$ 6,728 0.23%	\$ 17,065 0.60%	\$ 15,725 0.56%	\$ 15,000
Consulting	\$ 49,588 1.46%	\$ 48,347 1.68%	\$ 48,252 1.70%	\$ 76,200 2.72%	\$ 50,000
Engineering	\$ 146,212 4.31%	\$ 337,773 11.73%	\$ 176,567 6.21%	\$ 150,000 5.35%	\$ 150,000
Legal	\$ 37,417 1.10%	\$ 24,000 0.85%	\$ 36,371 1.28%	\$ 30,000 1.07%	\$ 30,660
Bank Charges	\$ 9,570 0.28%	\$ 6,940 0.24%	\$ 33 0.00%	\$ - 0.00%	\$ 8,687
Data Processing	\$ 2,816 0.08%	\$ 3,679 0.13%	\$ 2,881 0.10%	\$ 3,000 0.11%	\$ 3,270
Debit/Credit Card Fees	\$ 10,646 0.31%	\$ 10,484 0.37%	\$ 10,414 0.37%	\$ 10,000 0.36%	\$ 10,200
Telephone	\$ 310 0.01%	\$ 178 0.01%	\$ 120 0.00%	\$ 250 0.01%	\$ 256
Internet/Web Services	\$ 8,007 0.24%	\$ 6,042 0.21%	\$ 4,294 0.15%	\$ 7,000 0.25%	\$ 5,000
Other	\$ - 0.00%	\$ 33 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Travel Expense	\$ 57 0.00%	\$ 117 0.00%	\$ 221 0.01%	\$ 125 0.00%	\$ 128
Advertising	\$ 3,361 0.10%	\$ 3,866 0.13%	\$ 101 0.00%	\$ 2,600 0.09%	\$ 2,665
Printing	\$ 1,620 0.05%	\$ 3,858 0.13%	\$ 1,700 0.06%	\$ 6,000 0.21%	\$ 4,000
General Liability Insurance	\$ 16,259 0.48%	\$ 124 0.00%	\$ 17,750 0.62%	\$ 3,000 0.11%	\$ 17,855
Bonding	\$ 2,153 0.06%	\$ 1,683 0.06%	\$ 1,748 0.06%	\$ 2,000 0.07%	\$ 2,044
Workman's Comp	\$ 337 0.01%	\$ 284 0.01%	\$ 182 0.01%	\$ 280 0.01%	\$ 286
Vehicle Insurance	\$ 8,073 0.24%	\$ 6,771 0.24%	\$ 8,912 0.31%	\$ 9,200 0.33%	\$ 9,402
Repair & Maint. - Office Equip	\$ - 0.00%	\$ - 0.00%	\$ 159 0.01%	\$ 300 0.01%	\$ 307
Dues & Subscriptions	\$ 1,911 0.06%	\$ 2,957 0.10%	\$ 1,791 0.06%	\$ 3,000 0.11%	\$ 3,066
Contracted Services	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Seminars/Educational Exp	\$ 113 0.00%	\$ 247 0.00%	\$ 448 0.02%	\$ 500 0.02%	\$ 500
Capital Lease - Land	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Capital Lease	\$ 6,070 0.18%	\$ 6,161 0.21%	\$ 5,427 0.19%	\$ 5,000 0.18%	\$ 5,000
Operating					
Water Operating Admin Salaries	\$ 32,985 0.97%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Wages	\$ 165,571 4.88%	\$ 176,123 6.12%	\$ 133,644 4.71%	\$ 173,400 6.19%	\$ 177,215
Summer Wages	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Vehicle Insurance	\$ 33,445 0.98%	\$ 30,520 1.08%	\$ 19,346 0.68%	\$ 32,400 1.16%	\$ 33,113
Disability Insurance	\$ 4,443 0.13%	\$ 4,090 0.14%	\$ 3,568 0.13%	\$ 4,660 0.17%	\$ 4,763
Vision Insurance	\$ 1,025 0.03%	\$ 1,285 0.04%	\$ 1,174 0.04%	\$ 1,300 0.05%	\$ 1,329
Hospitalization	\$ 539 0.02%	\$ 450 0.02%	\$ 407 0.01%	\$ 450 0.02%	\$ 531
Operating Benefit Bonus Payment	\$ 7,638 0.22%	\$ 85,512 2.97%	\$ 73,200 2.58%	\$ 98,110 3.50%	\$ 100,268
Life Insurance	\$ 2,055 0.06%	\$ 2,239 0.08%	\$ 2,068 0.07%	\$ 2,260 0.08%	\$ 2,310
Pension	\$ 27,095 0.80%	\$ 71,186 2.52%	\$ 37,869 1.33%	\$ 11,038 0.39%	\$ 11,281
Social Security	\$ 18,309 0.54%	\$ 15,819 0.55%	\$ 11,610 0.41%	\$ 15,744 0.56%	\$ 16,000
Unemployment Insurance	\$ 5,271 0.16%	\$ 5,433 0.19%	\$ 4,962 0.19%	\$ 5,650 0.20%	\$ 5,774
Prescription	\$ 24,419 0.73%	\$ 26,361 0.92%	\$ 24,240 0.85%	\$ 33,521 1.20%	\$ 34,270
Uniform Clothing Allowance	\$ 1,428 0.04%	\$ 1,430 0.05%	\$ 1,946 0.07%	\$ 1,800 0.06%	\$ 1,840
Uniforms (Boats)	\$ 810 0.02%	\$ 1,363 0.05%	\$ 770 0.03%	\$ 860 0.03%	\$ 879
CDL Random Drug Testing	\$ - 0.00%	\$ - 0.00%	\$ 136 0.00%	\$ 150 0.01%	\$ 153
Public Officials Lab. Insur	\$ 2,284 0.07%	\$ 2,520 0.09%	\$ 2,250 0.08%	\$ 2,800 0.09%	\$ 2,857
Workman's Comp	\$ 20,669 0.61%	\$ 15,030 0.52%	\$ 10,110 0.36%	\$ 14,976 0.53%	\$ 15,305
Contracted Grass Cutting Services	\$ 3,645 0.11%	\$ 4,320 0.15%	\$ 2,948 0.10%	\$ 2,730 0.10%	\$ 2,790
Capital Purchases	\$ 16,259 0.48%	\$ 3,426 0.12%	\$ - 0.00%	\$ - 0.00%	\$ -
Capital Lease	\$ 2,700 0.08%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Capital Lease - Vehicle	\$ 3,426 0.10%	\$ - 0.00%	\$ - 0.00%	\$ - 0.00%	\$ -
Treatment Plant					
Filterplant Admin Wages	\$ 43,716 1.29%	\$ 57,278 1.99%	\$ 57,302 2.02%	\$ 58,095 2.11%	\$ 60,395
Filterplant Operator Wages	\$ 191,103 5.63%	\$ 191,349 6.64%	\$ 193,300 6.88%	\$ 203,013 7.24%	\$ 207,479
Filterplant Operator Wages OT	\$ 43,373 1.28%	\$ 49,307 1.71%	\$ 53,037 1.87%	\$ 52,262 1.84%	\$ 54,466
Dental Insurance	\$ 4,259 0.13%	\$ 4,371 0.15%	\$ 4,426 0.16%	\$ 4,559 0.16%	\$ 4,659
Disability Insurance	\$ 638 0.02%	\$ 1,044 0.04%	\$ 1,080 0.04%	\$ 1,080 0.04%	\$ 1,104
Vision Insurance	\$ 481 0.01%	\$ 522 0.02%	\$ 526 0.02%	\$ 517 0.02%	\$ 528
Hospitalization	\$ 63,475 2.46%	\$ 88,203 3.05%	\$ 83,024 2.93%	\$ 93,475 3.33%	\$ 95,811
Life Insurance	\$ 1,552 0.05%	\$ 2,062 0.07%	\$ 2,147 0.08%	\$ 2,147 0.08%	\$ 2,194
Social Security	\$ 11,281 0.33%	\$ 22,794 0.79%	\$ 23,399 0.82%	\$ 24,205 0.86%	\$ 24,738
Prescription	\$ 27,635 0.81%	\$ 29,266 1.02%	\$ 29,328 1.03%	\$ 30,217 1.14%	\$ 32,721
Office Supplies/Furniture	\$ 2,060 0.06%	\$ 454 0.02%	\$ 578 0.02%	\$ 2,000 0.07%	\$ 2,044
Chemical	\$ 136,029 4.01%	\$ 111,212 3.86%	\$ 121,467 4.27%	\$ 120,000 4.28%	\$ 109,536
Lab Supplies	\$ 4,057 0.12%	\$ 3,738 0.13%	\$ 17,246 0.61%	\$ 6,000 0.21%	\$ 6,132
Cleaning/Sanitization Supplies	\$ 3,523 0.10%	\$ 3,405 0.12%	\$ 4,011 0.14%	\$ 3,200 0.11%	\$ 3,270
Sanitation	\$ 2,521 0.07%	\$ 3,164 0.11%	\$ 3,894 0.14%	\$ 4,000 0.14%	\$ 4,088
Equipment/Supplies	\$ 7,630 0.23%	\$ 5,404 0.19%	\$ 7,322 0.26%	\$ 10,000 0.36%	\$ 7,500
Telephone	\$ 2,944 0.08%	\$ 446 0.02%	\$ 279 0.01%	\$ 500 0.02%	\$ 511
Security System Fees	\$ 964 0.03%	\$ 1,578 0.05%	\$ 573 0.02%	\$ 1,300 0.05%	\$ 1,329
Property Insurance	\$ 12,165 0.36%	\$ 12,167 0.42%	\$ 14,317 0.50%	\$ 17,500 0.62%	\$ 17,885
Workman's Comp	\$ 24,709 0.73%	\$ 21,682 0.75%	\$ 20,486 0.72%	\$ 21,620 0.77%	\$ 22,096
Flood Insurance	\$ 23,826 0.70%	\$ 28,445 0.99%	\$ 35,473 1.25%	\$ 44,375 1.58%	\$ 45,351
Electricity	\$ 116,798 3.44%	\$ 100,387 3.49%	\$ 98,224 3.46%	\$ 118,000 4.19%	\$ 117,530
Repairs & Maint. - Bldg	\$ 7,877 0.23%	\$ 1,707 0.06%	\$ 1,623 0.06%	\$ 3,500 0.12%	\$ 3,577
Repairs & Maint. Mach/Equip	\$ 69,656 2.04%	\$ 80,946 2.81%	\$ 130,934 4.61%	\$ 100,000 3.57%	\$ 102,200
DUES/LICENSES	\$ 430 0.01%	\$ 1,175 0.04%	\$ 575 0.02%	\$ 600 0.02%	\$ 613
Contracted Lab Services	\$ 9,473 0.28%	\$ 12,957 0.44%	\$ 11,309 0.40%	\$ 10,000 0.36%	\$ 10,220
Vehicle Maintenance	\$ 102 0.00%	\$ 769 0.03%	\$ 286 0.01%	\$ 600 0.02%	\$ 613
Seminars/Educational Exp	\$ 2,079 0.06%	\$ 798 0.03%	\$ - 0.00%	\$ 1,000 0.04%	\$ 1,022
Capitol Lease - Vehicle	\$ 5,110 0.15%	\$ 6,622 0.23%	\$ 1,789 0.06%	\$ 1,800 0.06%	\$ -
Neighborhood & Economic Development					
Parade/Memorial Day	\$ 300	\$ 364	\$ -	\$ -	\$ -
Easter Events	\$ 53	\$ 60	\$ -	\$ -	\$ -
Trees Lighting	\$ 304	\$ 60	\$ 7	\$ -	\$ -
Other Events	\$ -	\$ -	\$ -	\$ -	\$ -
Engineering	\$ -	\$ -	\$ -	\$ -	\$ -
Telephone	\$ 76	\$ 64	\$ -	\$ -	\$ -
Printing	\$ -	\$ -	\$ -	\$ -	\$ -
General Liability Insurance	\$ 87	\$ 87	\$ 87	\$ 88	\$ 90
Water Services	\$ 89	\$ 21	\$ -	\$ -	\$ -
Equipment	\$ 514	\$ -	\$ -	\$ -	\$ -
Capital Lease	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL OPERATING EXPENSES	\$ 2,002,277 59.04%	\$ 2,203,378 76.50%	\$ 2,008,985 70.74%	\$ 2,042,200 72.85%	\$ 1,905,267
Income Before Taxes					
State and Federal Income Taxes					
NET INCOME					
HRG 10-yr CAPEX					
CAPITAL EXPENDITURES					
TOTAL CAPITAL EXPENDITURES					

Stetson Authority
Potential Purchase - DCF Analysis Model No. 1.1
Traditionally Financed Water/Wastewater Company

Assumptions:
Inflation 2.20%
WACC 7.62%
Rate Increase 10.00%
Tax Rate 28.85%
Meter Test \$50
Chemical to Sales 3.86%
DSIC CAP 7.50%

	PROJECTED 2020	PROJECTED 2021	PROJECTED 2022	PROJECTED 2023	PROJECTED 2024	PROJECTED 2025	PROJECTED 2026	PROJECTED 2027	PROJECTED 2028	PROJECTED 2029	PROJECTED 2030	PROJECTED 2031	PROJECTED 2032	PROJECTED 2033	PROJECTED 2034	PROJECTED 2035
Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase	Rate Increase
REVENUES																
Interest Earnings	\$ 12,775	\$ 13,056	\$ 13,343	\$ 13,637	\$ 13,937	\$ 14,243	\$ 14,557	\$ 14,877	\$ 15,204	\$ 15,539	\$ 15,881	\$ 16,230	\$ 16,587	\$ 16,952	\$ 17,325	\$ 17,706
Water Sales	\$ 2,995,765	\$ 2,995,743	\$ 3,299,749	\$ 3,299,743	\$ 3,623,717	\$ 3,623,717	\$ 3,992,933	\$ 3,992,933	\$ 4,391,957	\$ 4,391,957	\$ 4,831,323	\$ 4,831,323	\$ 5,314,259	\$ 5,314,259	\$ 5,842,695	\$ 6,400,000
Water Sale Standby Service	\$ 21,462	\$ 21,534	\$ 22,417	\$ 23,310	\$ 24,314	\$ 25,439	\$ 26,685	\$ 28,053	\$ 29,545	\$ 31,165	\$ 32,928	\$ 34,834	\$ 36,884	\$ 39,088	\$ 41,447	\$ 43,966
Meter Test	\$ 300	\$ 300	\$ 400	\$ 400	\$ 500	\$ 500	\$ 600	\$ 600	\$ 700	\$ 700	\$ 800	\$ 800	\$ 900	\$ 900	\$ 1,000	\$ 1,000
Water Tags & Materials	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000	\$ 4,000
Service Charges	\$ 5,621	\$ 5,745	\$ 5,871	\$ 6,000	\$ 6,132	\$ 6,267	\$ 6,405	\$ 6,546	\$ 6,690	\$ 6,837	\$ 6,986	\$ 7,141	\$ 7,298	\$ 7,458	\$ 7,623	\$ 7,791
Property Transfer Fee - Water	\$ 1,022	\$ 1,044	\$ 1,067	\$ 1,091	\$ 1,115	\$ 1,139	\$ 1,165	\$ 1,190	\$ 1,216	\$ 1,243	\$ 1,270	\$ 1,298	\$ 1,327	\$ 1,356	\$ 1,386	\$ 1,416
Property Posting Fees - Water	\$ 6,843	\$ 6,789	\$ 6,939	\$ 7,091	\$ 7,247	\$ 7,407	\$ 7,570	\$ 7,736	\$ 7,906	\$ 8,080	\$ 8,258	\$ 8,440	\$ 8,625	\$ 8,815	\$ 9,009	\$ 9,207
Interest Charges / Penalties	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000
Water NSF Charges	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400	\$ 400
Leak Prevention Fees	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30
PA One Call Refund	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375	\$ 375
Facilities Revenues	\$ 28,864	\$ 29,489	\$ 30,182	\$ 30,942	\$ 31,778	\$ 32,692	\$ 33,685	\$ 34,758	\$ 35,912	\$ 37,148	\$ 38,468	\$ 39,874	\$ 41,368	\$ 42,952	\$ 44,628	\$ 46,396
DSIC Revenues	\$ 28,864	\$ 29,489	\$ 30,182	\$ 30,942	\$ 31,778	\$ 32,692	\$ 33,685	\$ 34,758	\$ 35,912	\$ 37,148	\$ 38,468	\$ 39,874	\$ 41,368	\$ 42,952	\$ 44,628	\$ 46,396
TOTAL REVENUES	\$ 3,111,258	\$ 3,112,969	\$ 3,444,233	\$ 3,416,538	\$ 3,779,168	\$ 3,750,240	\$ 4,147,318	\$ 4,117,100	\$ 4,551,990	\$ 4,509,401	\$ 4,974,532	\$ 4,952,339	\$ 5,462,541	\$ 5,439,359	\$ 5,967,549	\$ 6,027,898
EXPENSES																
Office Supplies	\$ 767	\$ 783	\$ 801	\$ 818	\$ 836	\$ 855	\$ 873	\$ 893	\$ 912	\$ 932	\$ 953	\$ 974	\$ 995	\$ 1,017	\$ 1,040	\$ 1,062
Media - Water Breaks	\$ 511	\$ 522	\$ 534	\$ 545	\$ 557	\$ 570	\$ 582	\$ 595	\$ 608	\$ 622	\$ 635	\$ 649	\$ 663	\$ 678	\$ 693	\$ 708
Vehicle - Gasoline	\$ 5,222	\$ 5,337	\$ 5,455	\$ 5,575	\$ 5,697	\$ 5,823	\$ 5,951	\$ 6,082	\$ 6,216	\$ 6,352	\$ 6,492	\$ 6,636	\$ 6,781	\$ 6,930	\$ 7,082	\$ 7,238
Vehicle Fuel - Diesel	\$ 511	\$ 522	\$ 534	\$ 545	\$ 557	\$ 570	\$ 582	\$ 595	\$ 608	\$ 622	\$ 635	\$ 649	\$ 663	\$ 678	\$ 693	\$ 708
Supplies - Road Salt/Anti-Skid/Stones	\$ 15,667	\$ 16,012	\$ 16,364	\$ 16,724	\$ 17,092	\$ 17,468	\$ 17,852	\$ 18,245	\$ 18,647	\$ 19,057	\$ 19,476	\$ 19,903	\$ 20,340	\$ 20,790	\$ 21,247	\$ 21,715
Water & Related Equipment	\$ 36,557	\$ 37,361	\$ 38,183	\$ 39,023	\$ 39,882	\$ 40,759	\$ 41,656	\$ 42,572	\$ 43,509	\$ 44,468	\$ 45,444	\$ 46,444	\$ 47,469	\$ 48,510	\$ 49,577	\$ 50,668
Small Tools & Minor Equip	\$ 4,178	\$ 4,270	\$ 4,364	\$ 4,460	\$ 4,558	\$ 4,658	\$ 4,761	\$ 4,865	\$ 4,972	\$ 5,082	\$ 5,194	\$ 5,308	\$ 5,425	\$ 5,544	\$ 5,666	\$ 5,791
Machinery & Equipment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Leak Detection Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reservoir - Security	\$ 511	\$ 522	\$ 534	\$ 545	\$ 557	\$ 570	\$ 582	\$ 595	\$ 608	\$ 622	\$ 635	\$ 649	\$ 663	\$ 678	\$ 693	\$ 708
Reservoir - Repair/Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Radio Equipment Maintenance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Repair - Maint. - System	\$ 15,607	\$ 16,012	\$ 16,364	\$ 16,724	\$ 17,092	\$ 17,468	\$ 17,852	\$ 18,245	\$ 18,647	\$ 19,057	\$ 19,476	\$ 19,903	\$ 20,340	\$ 20,790	\$ 21,247	\$ 21,715
Repair & Maint. - Bldg	\$ 2,044	\$ 2,088	\$ 2,135	\$ 2,182	\$ 2,230	\$ 2,279	\$ 2,329	\$ 2,380	\$ 2,432	\$ 2,486	\$ 2,541	\$ 2,597	\$ 2,654	\$ 2,712	\$ 2,771	\$ 2,831
Repair & Maint. Mach/Equip	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358	\$ 358
Contracted Services	\$ 16,352	\$ 17,072	\$ 17,823	\$ 18,605	\$ 19,418	\$ 20,263	\$ 21,140	\$ 22,051	\$ 22,997	\$ 23,979	\$ 24,998	\$ 26,055	\$ 27,150	\$ 28,285	\$ 29,460	\$ 30,675
Vehicle Maintenance	\$ 12,534	\$ 12,810	\$ 13,091	\$ 13,379	\$ 13,674	\$ 13,975	\$ 14,282	\$ 14,596	\$ 14,917	\$ 15,245	\$ 15,581	\$ 15,924	\$ 16,274	\$ 16,632	\$ 16,998	\$ 17,372
Capital Purchases	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Capitol Lease - Vehicle	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Administration - Water																
Transfer to General Fund	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Authority Services	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480	\$ 480
Salaries - Administration	\$ 69,376	\$ 70,904	\$ 72,464	\$ 74,058	\$ 75,687	\$ 77,353	\$ 79,054	\$ 80,794	\$ 82,571	\$ 84,388	\$ 86,244	\$ 88,141	\$ 90,081	\$ 92,062	\$ 94,085	\$ 96,150
Secretarial/Assistant Serv	\$ 470	\$ 480	\$ 492	\$ 504	\$ 515	\$ 527	\$ 540	\$ 554	\$ 568	\$ 582	\$ 596	\$ 610	\$ 624	\$ 639	\$ 654	\$ 669
Wages - Clerical	\$ 44,811	\$ 45,592	\$ 46,395	\$ 47,221	\$ 48,068	\$ 48,939	\$ 49,835	\$ 50,756	\$ 51,702	\$ 52,673	\$ 53,669	\$ 54,691	\$ 55,738	\$ 56,811	\$ 57,910	\$ 59,035
Admin Benefits/Bonus Payment	\$ 8,795	\$ 8,888	\$ 8,986	\$ 9,088	\$ 9,194	\$ 9,303	\$ 9,414	\$ 9,528	\$ 9,645	\$ 9,765	\$ 9,888	\$ 10,014	\$ 10,142	\$ 10,273	\$ 10,407	\$ 10,544
Office Supplies	\$ 2,611	\$ 2,669	\$ 2,727	\$ 2,785	\$ 2,844	\$ 2,911	\$ 2,976	\$ 3,041	\$ 3,108	\$ 3,176	\$ 3,243	\$ 3,311	\$ 3,380	\$ 3,448	\$ 3,518	\$ 3,589
Paying Agent Service	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83	\$ 83
Codification	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Auditing	\$ 15,330	\$ 15,567	\$ 16,012	\$ 16,364	\$ 16,724	\$ 17,092	\$ 17,468	\$ 17,852	\$ 18,245	\$ 18,647	\$ 19,057	\$ 19,476	\$ 19,903	\$ 20,340	\$ 20,790	\$ 21,247
Consulting	\$ 51,100	\$ 52,224	\$ 53,373	\$ 54,547	\$ 55,747	\$ 56,974	\$ 58,227	\$ 59,508	\$ 60,817	\$ 62,155	\$ 63,523	\$ 64,920	\$ 66,349	\$ 67,809	\$ 69,300	\$ 70,825
Engineering	\$ 153,300	\$ 156,673	\$ 160,119	\$ 163,642	\$ 167,245	\$ 170,928	\$ 174,682	\$ 178,507	\$ 182,402	\$ 186,368	\$ 190,406	\$ 194,517	\$ 198,692	\$ 202,933	\$ 207,245	\$ 211,628
Legal	\$ 31,335	\$ 32,063	\$ 32,728	\$ 33,440	\$ 34,186	\$ 34,968	\$ 35,786	\$ 36,640	\$ 37,530	\$ 38,454	\$ 39,418	\$ 40,422	\$ 41,466	\$ 42,550	\$ 43,674	\$ 44,838
Bank Charges	\$ 8,878	\$ 9,073	\$ 9,273	\$ 9,478	\$ 9,688	\$ 9,899	\$ 10,116	\$ 10,339	\$ 10,566	\$ 10,800	\$ 11,039	\$ 11,282	\$ 11,529	\$ 11,780	\$ 12,034	\$ 12,292
Data Processing	\$ 3,342	\$ 3,416	\$ 3,491	\$ 3,568	\$ 3,646	\$ 3,727	\$ 3,809	\$ 3,892	\$ 3,978	\$ 4,065	\$ 4,155	\$ 4,246	\$ 4,340	\$ 4,435	\$ 4,533	\$ 4,632
Debit/Credit Card Fees	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146	\$ 10,146
Telephone	\$ 261	\$ 267	\$ 273	\$ 279	\$ 285	\$ 291	\$ 298	\$ 304	\$ 311	\$ 318	\$ 325	\$ 332	\$ 339	\$ 347	\$ 354	\$ 362
Internet/Web Services	\$ 5,110	\$ 5,110	\$ 5,337	\$ 5,455	\$ 5,575	\$ 5,697	\$ 5,823	\$ 5,951	\$ 6,082	\$ 6,216	\$ 6,352	\$ 6,492	\$ 6,636	\$ 6,781	\$ 6,930	\$ 7,082
Other	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Travel Expense	\$ 130	\$ 133	\$ 136	\$ 139	\$ 142	\$ 146	\$ 149	\$ 152	\$ 156	\$ 159	\$ 162	\$ 166	\$ 170	\$ 173	\$ 177	\$ 181
Advertising	\$ 4,988	\$ 5,178	\$ 5,373	\$ 5,573	\$ 5,778	\$ 5,988	\$ 6,199	\$ 6,414	\$ 6,634	\$ 6,858	\$ 7,086	\$ 7,318	\$ 7,554	\$ 7,794	\$ 8,038	\$ 8,286
Printing	\$ 4,098	\$ 4,179	\$ 4,270	\$ 4,364	\$ 4,460	\$ 4,558	\$ 4,658	\$ 4,761	\$ 4,865	\$ 4,972	\$ 5,082	\$ 5,194	\$ 5,308	\$ 5,425	\$ 5,544	\$ 5,666
General Liability Insurance	\$ 18,841	\$ 19,042	\$ 19,248	\$ 19,459	\$ 19,676	\$ 19,898	\$ 20,125	\$ 20,357	\$ 20,594	\$ 20,836	\$ 21,083	\$ 21,335	\$ 21,591	\$ 21,852	\$ 22,118	\$ 22,389
Bonding	\$ 2,085	\$ 2,182	\$ 2,280	\$ 2,380	\$ 2,482	\$ 2,586	\$ 2,693	\$ 2,802	\$ 2,914	\$ 3,028	\$ 3,144	\$ 3,262	\$ 3,382	\$ 3,504	\$ 3,628	\$ 3,754
Workman's Comp	\$ 9,606	\$ 9,821	\$ 10,037	\$ 10,258	\$ 10,483											

