

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

THE YORK WATER COMPANY

DOCKET NOS. R-2025-3053442 AND R-2025-3053573

**Direct Testimony and Exhibit
of
Dylan W. D'Ascendis**

List of Topics Addressed

Return on Equity

May 30, 2025

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1 **I. INTRODUCTION**

2 **A. WITNESS IDENTIFICATION**

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

4 A. My name is Dylan W. D'Ascendis. My business address is 1820 Chapel Avenue W, Suite
5 300, Cherry Hill, NJ 08003.

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

7 A. I am a Partner at ScottMadden, Inc.

8 **B. BACKGROUND AND QUALIFICATIONS**

9 **Q. Please summarize your professional experience and educational background.**

10 A. I have offered expert testimony on behalf of investor-owned utilities before over 40 state
11 regulatory commissions in the United States, the Federal Energy Regulatory Commission,
12 the National Energy Regulator in Canada, the Alberta Utility Commission, an American
13 Arbitration Association panel, and the Superior Court of Rhode Island on issues including,
14 but not limited to, common equity cost rate, rate of return, valuation, capital structure, class
15 cost of service, and rate design.

16 On behalf of the American Gas Association ("AGA"), I calculate the AGA Gas
17 Index, which serves as the benchmark against which the performance of the American Gas
18 Index Fund ("AGIF") is measured on a monthly basis. The AGA Gas Index and AGIF are
19 a market capitalization-weighted index and mutual fund, respectively, comprised of the
20 common stocks of the publicly traded corporate members of the AGA.

21 I am a member of the Society of Utility and Regulatory Financial Analysts
22 ("SURFA"). In 2011, I was awarded the professional designation "Certified Rate of Return
23 Analyst" by SURFA, which is based on education, experience, and the successful
24 completion of a comprehensive written examination.

1 I am also a member of the National Association of Certified Valuation Analysts
2 (“NACVA”) and was awarded the professional designation “Certified Valuation Analyst”
3 by the NACVA in 2015.

4 I am a graduate of the University of Pennsylvania, where I received a Bachelor of
5 Arts degree in Economic History. I have also received a Master of Business Administration
6 with high honors and concentrations in Finance and International Business from Rutgers
7 University. The details of my educational background and expert witness appearances are
8 included in Appendix A

9 **II. PURPOSE OF TESTIMONY**

10 **Q. What is the purpose of your Direct Testimony in this proceeding?**

11 A. The purpose of my Direct Testimony is to present evidence on behalf of The York Water
12 Company (“York Water” or the “Company”) about the appropriate capital structure and
13 corresponding cost rates the Company should be given the opportunity to earn on its
14 jurisdictional rate base.

15 **Q. Have you prepared any Schedules in support of your recommendation?**

16 A. Yes. I have prepared Schedules DWD-1 through DWD-9, which have been prepared by
17 me or under my direct supervision.

18 **Q. What is your recommended cost of capital for York Water?**

19 A. I recommend the Pennsylvania Public Utility Commission (“PA PUC” or the
20 “Commission”) authorize the Company the opportunity to earn an overall rate of return of
21 8.01% based on the Company’s actual capital structure, which consists of 45.42% long-
22 term debt at a weighted average cost rate of 4.54%, and 54.58% common equity at my
23 recommended return on common equity (“ROE”) of 10.90%. The overall rate of return is
24 summarized on page 1 of Schedule DWD-1 and in Table 1 below:

Table 1: Summary of Overall Rate of Return

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	45.42%	4.54%	2.06%
Common Equity	<u>54.58%</u>	10.90%	<u>5.95%</u>
Total	<u>100.00%</u>		<u>8.01%</u>

III. SUMMARY

Q. Please summarize your recommended common equity cost rate.

A. My recommended common equity cost rate of 10.90% is summarized on page 2 of Schedule DWD-1. I have assessed the market-based common equity cost rates of companies of relatively similar, but not necessarily identical, risk to York Water. Using companies of relatively comparable risk as proxies is consistent with the principles of fair rate of return established in the *Hope*¹ and *Bluefield*² Supreme Court cases. No proxy group can be identical in risk to any single company, so there must be an evaluation of relative risk between the Company and the proxy group to see if it is appropriate to make adjustments to the proxy group’s indicated rate of return.

My recommendation results from the application of several cost of common equity models, specifically the Discounted Cash Flow (“DCF”) model, the Risk Premium Model (“RPM”), and the Capital Asset Pricing Model (“CAPM”), to the market data of a proxy group of six water companies (“Utility Proxy Group”) whose selection criteria will be discussed below. In addition, I also applied the DCF, RPM, and CAPM to a proxy group of domestic, non-price regulated companies comparable in total risk to the Utility Proxy Group (“Non-Price Regulated Proxy Group”).

¹ *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591 (1944). (“*Hope*”)

² *Bluefield Water Works Improvement Co. v. Public Serv. Comm’n*, 262 U.S. 679 (1922). (“*Bluefield*”)

1 The results derived from each are as follows:

2 **Table 2: Summary of Common Equity Cost Rate**

Discounted Cash Flow Model	9.82%
Risk Premium Model	10.70%
Capital Asset Pricing Model	10.74%
Market Models Applied to Comparable Risk, Non-Price Regulated Companies	<u>11.51%</u>
Indicated Range of Common Equity Cost Rates Before Adjustments for Company-Specific Risk	9.82%- 11.51%
Business Risk Adjustment	0.15%
Flotation Cost Adjustment	0.12%
Performance Factor Adjustment	<u>0.25%</u>
Indicated Range of Common Equity Cost Rates after Adjustment	<u>10.34% – 12.03%</u>
Recommended Cost of Common Equity	<u>10.90%</u>

3
4 After analyzing the indicated common equity cost rates derived through these
5 models, the indicated range of common equity cost rates applicable to the Utility Proxy
6 Group is between 9.82% and 11.51%.

7 The indicated range of common equity cost rates applicable to the Utility Proxy
8 Group was then adjusted upward by 0.15% to reflect York Water's greater business risk
9 due to its substantially smaller size relative to the Utility Proxy Group. I then adjusted the
10 indicated common equity cost rate upward by 0.12% to account for flotation costs. I also
11 adjusted the Company's' indicated range of common equity cost rates upward by 0.25% to
12 reflect a performance factor adjustment, based on guidance from Section 523 of the
13 Pennsylvania Public Utility Code, 66 Pa.C.S. § 523. These adjustments result in a
14 Company-specific range of common equity cost rates between 10.34% and 12.03%. From

1 this range of results, I recommend the Commission consider a common equity cost rate of
2 10.90% for use in setting rates for the Company.

3 **IV. GENERAL PRINCIPLES**

4 **Q. What general principles have you considered in arriving at your recommended**
5 **common equity cost rate of 10.90%?**

6 A. In unregulated industries, the competition of the marketplace is the principal determinant
7 of the price of products or services. For regulated public utilities, regulation must act as a
8 substitute for marketplace competition. Assuring that the utility can provide safe and
9 reliable service at all times to their customers requires a level of earnings sufficient to
10 maintain the integrity of presently invested capital. Sufficient earnings also permit the
11 attraction of needed new capital at a reasonable cost, for which the utility must compete
12 with other firms of comparable risk, consistent with the fair rate of return standards
13 established by the U.S. Supreme Court in the previously cited *Hope* and *Bluefield*
14 decisions. The U.S. Supreme Court affirmed the fair rate of return standards in *Hope*, when
15 it stated:

16 The rate-making process under the Act, i.e., the fixing of 'just and
17 reasonable' rates, involves a balancing of the investor and the consumer
18 interests. Thus we stated in the *Natural Gas Pipeline Co.* case that
19 'regulation does not insure [sic] that the business shall produce net
20 revenues.' 315 U.S. at page 590, 62 S.Ct. at page 745. But such
21 considerations aside, the investor interest has a legitimate concern with the
22 financial integrity of the company whose rates are being regulated. From
23 the investor or company point of view it is important that there be enough
24 revenue not only for operating expenses but also for the capital costs of the
25 business. These include service on the debt and dividends on the stock. Cf.
26 *Chicago & Grand Trunk R. Co. v. Wellman*, 143 U.S. 339, 345, 346 12
27 S.Ct. 400, 402. By that standard the return to the equity owner should be
28 commensurate with returns on investments in other enterprises having
29 corresponding risks. That return, moreover, should be sufficient to assure

1 confidence in the financial integrity of the enterprise, so as to maintain its
2 credit and to attract capital.³

3 In summary, the U.S. Supreme Court has found a return that is adequate to attract
4 capital at reasonable terms enables the utility to provide service while maintaining its
5 financial integrity. As discussed above, and in keeping with established regulatory
6 standards, that return should be commensurate with the returns expected elsewhere for
7 investments of corresponding risk. The Commission's decision in this proceeding,
8 therefore, should provide the Company with the opportunity to earn a return that is: 1)
9 adequate to attract capital at reasonable cost and terms; 2) sufficient to ensure its financial
10 integrity; and 3) commensurate with returns on investments in enterprises having
11 corresponding risks.

12 In addition, the required return for a regulated public utility is established on a
13 stand-alone basis, i.e., for the utility operating company at issue in a rate case. Parent
14 entities, like other investors, have capital constraints and must look at the attractiveness of
15 the expected risk-adjusted return of each investment alternative in their capital budgeting
16 process. That is, utility holding companies that own many utility operating companies have
17 choices as to where they will invest their limited capital within the holding company
18 family. Therefore, the opportunity cost concept applies regardless of whether the funding
19 source is public or corporate.

20 When funding is provided by a parent entity, the return still must be sufficient to
21 provide an incentive to allocate equity capital to the subsidiary or business unit rather than
22 other internal or external investment opportunities. That is, the regulated subsidiary must
23 compete for capital with all the parent company's affiliates, and with other similar risk

³ *Hope*, 320 U.S. 591 (1944), at 603.

1 companies, which may include non-utilities. In that regard, investors value corporate
2 entities on a sum-of-the-parts basis and expect each division within the parent company to
3 provide an appropriate risk-adjusted return.

4 It, therefore, is important that the authorized ROE for the Company reflects the
5 risks and prospects of its operations and supports its financial integrity from a stand-alone
6 perspective.

7 **Q. Within that broad framework, how is the cost of capital estimated in regulatory**
8 **proceedings?**

9 A. Regulated utilities primarily use common stock and long-term debt to finance their
10 permanent property, plant, and equipment (i.e., rate base). The fair rate of return for a
11 regulated utility is based on its weighted average cost of capital, in which, as noted earlier,
12 the costs of the individual sources of capital are weighted by their respective book values.

13 The cost of capital is the return investors require to make an investment in a firm.
14 Investors will provide funds to a firm only if the return that they *expect* is equal to, or
15 greater than, the return that they *require* to accept the risk of providing funds to the firm.

16 The cost of capital (that is, the combination of the costs of debt and equity) is based
17 on the economic principle of “opportunity costs.” The principle of opportunity costs
18 recognizes that investing in any asset (whether debt or equity securities) represents a
19 forgone opportunity to invest in alternative assets. For any investment to be sensible, its
20 expected return must be at least equal to the return expected on alternative investment
21 opportunities with comparable risks. Because investments with like risks should offer
22 similar returns, the opportunity cost of an investment should equal the return available on
23 an investment of comparable risk.

1 The cost of debt is contractually defined and can be directly observed as the interest
2 rate or yield on debt securities. However, the cost of equity must be estimated based on
3 market data and various financial models. Because the cost of equity is premised on
4 opportunity costs, the models used to determine it are typically applied to a group of
5 “comparable” or “proxy” companies.

6 In the end, the estimated cost of capital should reflect the return that investors
7 require in light of the subject company’s business and financial risks, and the returns
8 available on comparable investments.

9 **A. BUSINESS RISK**

10 **Q. Please define business risk and explain why it is important to the determination of a**
11 **fair rate of return.**

12 A. Business risk is the riskiness of a company’s common stock without the use of debt and/or
13 preferred capital. Examples of such general business risks faced by all utilities (i.e.,
14 electric, natural gas distribution, and water) include size, the quality of management, the
15 regulatory environment in which utilities operate, customer mix and concentration of
16 customers, service territory growth, and capital intensity. All of these have a direct bearing
17 on earnings.

18 Consistent with the basic financial principle of risk and return, business risk is
19 important to the determination of a fair rate of return, because the higher the level of risk,
20 the higher the rate of return investors demand.

21 **Q. What business risks do the water and wastewater industries face in general?**

22 A. Water and wastewater utilities have an ever-increasing responsibility to be stewards of the
23 environment from which water supplies are drawn in order to preserve and protect essential
24 natural resources of the United States. Water utilities also produce the only utility

1 commodity that is ingested. Because of this, water utilities are subject to continuous
2 monitoring by the Environmental Protection Agency and state and local governments for
3 potential contaminants. Furthermore, emergence of new contaminants exposes water
4 utilities to litigation.

5 In addition, water utilities have significant capital needs due to their aging
6 infrastructure, exacerbating the pressure on free cash flows arising from increased capital
7 expenditures for infrastructure repair and replacement. The significant amount of capital
8 investment is another major risk factor for the water and wastewater utility industry.

9 *Value Line Investment Survey* (“*Value Line*”) observes the following about the
10 water utility industry:

11 Water utilities have been playing catch up for more than a decade.
12 The industry had deferred capital spending for years, partially to
13 keep customers' bills artificially low. As a result, the condition of
14 the nation's water infrastructure has deteriorated significantly. In
15 many parts of the country, the average age of pipelines can vary
16 from 40 to 75 years. In addition to leaky pipes, many valves are
17 broken. This causes a portion of the water being transported to never
18 make it to its destination. The companies here have increased their
19 capital budgets aggressively and have been hard at work upgrading
20 their systems. Nevertheless, there is so much work ahead that the
21 construction cycle should continue for the foreseeable future.⁴

22 The water and wastewater industry also experiences low depreciation rates.
23 Depreciation rates are one of the principal sources of internal cash flows for all utilities
24 (through a utility's depreciation expense) and are vital for a company to fund ongoing
25 replacements and repairs of water and wastewater systems. Water/wastewater utility assets
26 have long lives and therefore have long capital recovery periods. As such, they face greater
27 risk due to inflation, which results in a higher replacement cost per dollar of net plant.

⁴ *Value Line Investment Survey*, April 4, 2025.

1 Simply, capital that is retiring today will need to be replaced with capital which is
2 significantly more expensive.

3 Substantial capital expenditures, as noted by *Value Line*, require significant
4 financing. The three sources of financing typically used are debt, equity (common and
5 preferred), and cash flow. All three are intricately linked to the opportunity to earn a
6 sufficient rate of return as well as the ability to achieve that return. Consistent with *Hope*
7 and *Bluefield*, the return must be sufficient to maintain credit quality as well as enable the
8 attraction of necessary new capital, be it debt or equity capital. If unable to raise debt or
9 equity capital, the utility must turn to either retained earnings or free cash flow,⁵ both of
10 which are directly linked to earning a sufficient rate of return. The level of free cash flow
11 represents a utility's ability to meet the needs of its debt and equity holders. If either
12 retained earnings or free cash flow is inadequate, it will be nearly impossible for the utility
13 to attract the needed capital for new infrastructure investment necessary to ensure quality
14 service to its customers. An insufficient rate of return can be financially devastating for
15 utilities as well as a public safety issue for their customers.

16 The water and wastewater utility industry's high degree of capital intensity and low
17 depreciation rates, coupled with the need for substantial infrastructure capital spending and
18 growing exposure to legal risks from emerging contaminants and public health concerns,
19 require regulatory support in the form of adequate and timely rate relief, and in particular,
20 a sufficient authorized return on common equity, so that the industry can successfully meet
21 the challenges it faces.

⁵ Free Cash Flow = Operating Cash Flow (Funds From Operations) minus Capital Expenditures.

1 **B. FINANCIAL RISK**

2 **Q. Please define financial risk and explain why it is important to the determination of a**
3 **fair rate of return.**

4 A. Financial risk is the additional risk created by the introduction of debt and preferred stock
5 into the capital structure. The higher the proportion of debt and preferred stock in the
6 capital structure, the higher the financial risk (i.e., likelihood of default). Therefore,
7 consistent with the basic financial principle of risk and return, investors demand a higher
8 common equity return as compensation for bearing higher default risk.

9 **Q. Can bond and credit ratings be a proxy for the combined business and financial risk**
10 **(i.e., investment risk of an enterprise)?**

11 A. Yes, similar bond ratings/issuer credit ratings reflect, and are representative of, similar
12 combined business and financial risks (i.e., total risk) faced by bond investors.⁶ Although
13 specific business or financial risks may differ between companies, the same bond/credit
14 rating indicates that the combined risks are roughly similar, albeit not necessarily equal, as
15 the purpose of the bond/credit rating process is to assess credit quality or credit risk (i.e.,
16 the risk of the company not paying its outstanding debt), and not common equity risk (i.e.,
17 the risk of the company not paying its outstanding debt, nor compensating its equity
18 investors).

⁶ Risk distinctions within S&P's bond rating categories are recognized by a plus or minus, i.e., within the A category, an S&P rating can be at A+, A, or A-. Similarly, risk distinctions for Moody's ratings are distinguished by numerical rating gradations, i.e., within the A category, a Moody's rating can be A1, A2 and A3.

1 **Q. That being said, do rating agencies reflect company size in their bond ratings?**

2 A. No. Neither Standard & Poor's ("S&P") nor Moody's Ratings ("Moody's") have
3 minimum company size requirements for any given rating level. This means, all else equal,
4 a relative size analysis needs to be conducted for companies with similar bond ratings.

5 **V. YORK WATER AND THE UTILITY PROXY GROUP**

6 **Q. Are you familiar with the operations of York Water?**

7 A. Yes. York Water provides water and wastewater services to approximately 212,000 people
8 across 57 municipalities in York, Adams, Franklin, and Lancaster counties in south-central
9 Pennsylvania. As of December 31, 2024, the Company served 73,089 water customers and
10 6,682 wastewater customers within its franchised service territory. Water service is
11 supplied through the Company's own distribution system, drawing primarily from the
12 south and east branches of the Codorus Creek and the Susquehanna River. The Company's
13 common stock is publicly traded on the NASDAQ under the ticker symbol "YORW".

14 **Q. Why is it necessary to develop a proxy group when estimating the ROE for the**
15 **Company?**

16 A. Even though the Company is publicly traded, it is still necessary to develop groups of
17 publicly traded, comparable companies to serve as "proxies" for the Company. In addition
18 to the analytical necessity of doing so, the use of proxy companies is consistent with the
19 *Hope* and *Bluefield* comparable risk standards, as discussed above. I have selected a proxy
20 group that, in my view, is fundamentally risk-comparable to the Company.

21 Even when proxy groups are carefully selected, it is common for analytical results
22 to vary from company to company. Despite the care taken to ensure comparability, because
23 no two companies are identical, market expectations regarding future risks and prospects
24 will vary within the proxy group. It therefore is common for analytical results to reflect a

1 seemingly wide range, even for a group of similarly situated companies. At issue is how
2 to estimate the ROE for the target company from within that range. That determination
3 will be best informed by employing a variety of sound analyses and necessarily must
4 consider the sort of quantitative and qualitative information discussed throughout my
5 Direct Testimony. Additionally, a relative risk analysis between the Company and the
6 Utility Proxy Group must be made to determine whether explicit Company-specific
7 adjustments need to be made to the Utility Proxy Group's indicated results.

8 My analyses are based on the Utility Proxy Group containing U.S. water utilities.
9 As discussed earlier, utilities must compete for capital with other companies with
10 commensurate risk (including non-utilities) and, to do so, must be provided the opportunity
11 to earn a comparable return to these companies having a commensurate risk.
12 Consequently, it is appropriate to consider the Utility Proxy Group's market data in
13 determining the Company's ROE.

14 **Q. Please explain how you chose your Utility Proxy Group.**

15 A. The basis of selection for the Utility Proxy Group was to select those companies which
16 meet the following criteria:

- 17 (i) They are included in the Water Utility Group of *Value Line's Standard Edition*
18 (April 4, 2025);
- 19 (ii) They have 60% or greater of 2024 total operating income or 60% or greater of 2024
20 total assets attributable to regulated water operations;
- 21 (iii) At the time of preparation of this testimony, they had not publicly announced that
22 they were involved in any major merger or acquisition activity (i.e., one publicly
23 traded utility merging with or acquiring another);

- 1 (iv) They have not cut or omitted their common dividends during the five years ending
2 2024 or through the time of the preparation of this testimony;
- 3 (v) They have *Value Line* and Bloomberg Professional Services (“Bloomberg”)
4 adjusted Beta coefficients (“beta”);
- 5 (vi) They have a positive *Value Line* five-year dividends per share (“DPS”) growth rate
6 projection; and
- 7 (vii) They have *Value Line*, Zacks or S&P Capital IQ five-year earnings per share
8 (“EPS”) growth rate projections.

9 The following six companies met these criteria: American States Water Company,
10 American Water Works Company, Inc., California Water Service Group, Essential Utilities
11 Inc., Middlesex Water Company, and SJW Group.

12 **Q. Why did you exclude YORW from your proxy group in this proceeding?**

13 A. YORW is not in the *Value Line Standard Edition*, nor does it have projected EPS growth
14 rates from *Value Line*, Zacks or S&P Capital IQ needed to calculate an indicated DCF cost
15 rate.

16 **Q. Please describe Schedule DWD-2, page 1.**

17 A. Page 1 of Schedule DWD-2 contains comparative capitalization and financial statistics for
18 the Utility Proxy Group identified above for the years 2020 to 2024. During the five-year
19 period ending 2024, the historically-achieved earnings rate on book common equity for the
20 group averaged 10.16%. The average common equity ratio based on total permanent
21 capital (excluding short-term debt) was 50.06%, and the average dividend payout ratio was
22 55.95%.

1 Total debt to earnings before interest, taxes, depreciation, and amortization for the
2 years 2020 to 2024 ranges between 4.84x and 5.61x, with an average of 5.30x. Funds from
3 operations to total debt range from 11.18% to 13.26%, with an average of 12.02%.

4 **VI. CAPITAL STRUCTURE AND COST OF LONG-TERM DEBT**

5 **Q. What capital structure ratio do you recommend be employed in developing an overall
6 fair rate of return appropriate for the Company in this proceeding?**

7 A. I recommend the Commission authorize a ratemaking capital structure based on the
8 Company's capital structure at December 31, 2024, consisting of 45.42% long-term debt
9 and 54.58% common equity.

10 **Q. What are the typical sources of capital commonly considered in establishing a utility's
11 capital structure?**

12 A. Common equity and long-term debt are commonly considered in establishing a utility's
13 capital structure because they are the typical sources of capital financing a utility's rate
14 base.

15 **Q. Please explain.**

16 A. Long-lived assets are typically financed with long-lived securities, so that the overall term
17 structure of the utility's long-term liabilities (both debt and equity) closely match the life
18 of the assets being financed. As stated by Brigham and Houston:

19 In practice, firms don't finance each specific asset with a type of capital that
20 has a maturity equal to the asset's life. However, academic studies do show
21 that most firms tend to finance short-term assets from short-term sources
22 and long-term assets from long-term sources.⁷

⁷ Eugene F. Brigham and Joel F. Houston, Fundamentals of Financial Management, Concise 4th Ed., Thomson South-Western, 2004, at 574.

1 Whereas short-term debt has a maturity of one year or less, long-term debt may
2 have maturities of 30 years or longer. Although there are practical financing constraints,
3 such as the need to “stagger” long-term debt maturities, the general objective is to extend
4 the average life of long-term debt. Still, long-term debt has a finite life, which is likely to
5 be less than the life of the assets included in rate base. Common equity, on the other hand,
6 is outstanding into perpetuity. Thus, common equity more accurately matches the life of
7 the going concern of the utility, which is also assumed to operate in perpetuity.
8 Consequently, it is both typical and important for utilities to have significant proportions
9 of common equity in their capital structures.

10 **Q. How does York Water’s common equity ratio of 54.58% compare with the total**
11 **equity ratios maintained by the Utility Proxy Group?**

12 A. The Company’s common equity ratio of 54.58% for York Water is reasonable and
13 consistent with the range of common equity ratios maintained by the Utility Proxy Group
14 on which I base my recommended common equity cost rate. As shown on Schedule DWD-
15 2, page 2, the range of common equity ratios maintained by the Utility Proxy Group is
16 between 43.99% and 58.95%. Regarding expected equity ratios, as shown on pages 2
17 through 7 on Schedule DWD-3, *Value Line* projects a range of equity ratios between
18 43.50% and 66.00%. for the years 2028-2030. The company’s actual common equity ratio
19 of 54.58% falls within this range.

20 **Q. What embedded cost of long-term debt do you recommend for York Water in this**
21 **proceeding?**

22 A. I recommend York Water’s actual embedded cost of long-term debt as of December 31,
23 2024 of 4.54% in this proceeding.

1 **VII. COMMON EQUITY COST RATE MODELS**

2 **Q. Is it important that cost of common equity models be market-based?**

3 A. Yes. A public utility must compete for equity in capital markets along with all other
4 companies of comparable risk, which includes non-utilities. The cost of common equity is
5 thus determined based on equity market expectations for the returns of those comparable
6 risk companies. If individual investors are choosing to invest their capital among
7 companies of comparable risk, they will choose a company providing a higher return over
8 a company providing a lower return.

9 **Q. Are your cost of common equity models market-based models?**

10 A. Yes. The DCF model is market-based because market prices are used in developing the
11 dividend yield component of the model. The RPM is market-based because the bond
12 ratings and expected bond yields used in the application of the RPM reflect the market's
13 assessment of bond/credit risk. In addition, the use of beta (β) to determine the equity risk
14 premium reflects the market's assessment of market/systematic risk, since betas are derived
15 from regression analyses of market prices. The Predictive Risk Premium Model ("PRPM")
16 uses monthly market returns in addition to expectations of the risk-free rate. The CAPM
17 is market-based for many of the same reasons that the RPM is market-based (i.e., the use
18 of expected bond yields and beta). Selection of the comparable risk non-price regulated
19 companies is market-based because it is based on statistics which result from regression
20 analyses of market prices and reflect the market's assessment of total risk.

21 **Q. What analytical approaches did you use to determine the Company's ROE?**

22 A. As discussed earlier, I have relied on the DCF model, the RPM, and the CAPM, which I
23 applied to the Utility Proxy Group described above. I also applied these same models to a
24 Non-Price Regulated Proxy Group described later in this section.

1 I rely on multiple models because reasonable investors use a variety of tools and do
2 not rely exclusively on a single source of information or single model. Moreover, the
3 specific models on which I rely focus on different aspects of return requirements, and
4 provide different insights to investors' views of risk and return. The DCF model, for
5 example, estimates the investor-required return assuming a constant expected dividend
6 yield and growth rate in perpetuity, while Risk Premium-based methods (i.e., the RPM and
7 CAPM approaches) provide the ability to reflect investors' views of risk, future market
8 returns, and the relationship between interest rates and the ROE. Just as the use of market
9 data for the Utility Proxy Group adds the reliability necessary to inform expert judgment
10 in arriving at a recommended common equity cost rate, the use of multiple generally
11 accepted common equity cost rate models also adds reliability and accuracy when arriving
12 at a recommended common equity cost rate.

13 **A. DISCOUNTED CASH FLOW MODEL**

14 **Q. What is the theoretical basis of the DCF model?**

15 A. The DCF model is based on the theory that the present value of an expected future stream
16 of net cash flows during the investment holding period can be determined by discounting
17 those cash flows at the cost of capital, or the investors' capitalization rate. Mathematically
18 this is shown as:

$$P_0 = \frac{D_1}{(1+ke)} + \frac{D_2}{(1+ke)^2} + \dots + \frac{D_t}{(1+ke)^t}$$

20 where:

21 k = the required Return on Common Equity;

22 $D_1 \dots D_t$ = the future expected dividends; and

23 P_0 = the current stock price.

1 The above equation can be rearranged to form the single-stage constant growth
2 DCF model as such:

$$3 \qquad K_e = (D_0 (1+g))/P + g$$

4 where:

5 K_e = the required Return on Common Equity;

6 D_0 = the annualized Dividend Per Share;

7 P = the current stock price; and

8 g = the growth rate.

9 In this form, the required ROE is equal to the expected dividend yield plus an
10 expected long-term growth rate. The constant growth DCF formula is derived from the
11 present value DCF formula.

12 Under the model's strict assumptions, the growth rate equals the rate of capital
13 appreciation (that is, the growth in the stock price). Given that assumption, it does not
14 matter whether the investor holds the stock in perpetuity, or whether they hold the stock
15 for some period of time, collect the dividends, then sell at the prevailing market price.

16 **Q. Which version of the DCF model did you use?**

17 A. I used the single-stage constant growth DCF model.

18 **Q. Please describe the dividend yield you used in your application of the DCF model.**

19 A. The unadjusted dividend yields are based on the proxy companies' dividends as of April
20 1, 2025, divided by the average of closing market prices for the 60 trading days ending
21 April 1, 2025.⁸

⁸ See, Schedule DWD-3, page 1, Column 1.

1 **Q. Please explain your adjustment to the dividend yield.**

2 A. Because dividends are paid periodically (quarterly), as opposed to continuously (daily), an
3 adjustment must be made to the dividend yield. This is often referred to as the discrete, or
4 the Gordon Periodic, version of the DCF model.

5 DCF theory calls for the use of the full growth rate, or D_1 , in calculating the
6 dividend yield component of the model. Since the various companies in the Utility Proxy
7 Group increase their quarterly dividend at various times during the year, a reasonable
8 assumption is to reflect one-half the annual dividend growth rate in the dividend yield
9 component, or $D_{1/2}$. Because the dividend should be representative of the next 12-month
10 period, my adjustment is a conservative approach that does not overstate the dividend yield.
11 Therefore, the actual average dividend yields in Column 1 on page 1 of Schedule DWD-3
12 have been adjusted upward to reflect one-half the average projected growth rate shown in
13 Column 5.

14 **Q. Please explain the basis of the growth rates you applied to the Utility Proxy Group in
15 your DCF model.**

16 A. Investors with more limited resources than institutional investors are likely to rely on
17 widely available financial information services, such as *Value Line*, *Zacks*, and S&P
18 Capital IQ. Investors realize that analysts have significant insight into the dynamics of the
19 industries and individual companies they analyze, as well as companies' abilities to
20 effectively manage the effects of changing laws and regulations, and ever-changing
21 economic and market conditions. For these reasons, I used analysts' five-year forecasts of
22 EPS growth in my DCF analysis.

23 Over the long run, there can be no growth in DPS without growth in EPS. Security
24 analysts' earnings expectations have a more significant influence on market prices than

1 dividend expectations. Thus, the use of earnings growth rates in a DCF analysis provides
2 a better match between investors' market price appreciation expectations and the growth
3 rate component of the DCF.

4 **Q. Please summarize the DCF model results.**

5 A. As shown on page 1 of Schedule DWD-3, the application of the constant growth DCF
6 model to the Utility Proxy Group results in a wide range of indicated ROEs from 6.03% to
7 14.46%. The mean of those results is 10.07%, the median result is 9.57%, and the average
8 of the two is 9.82%.

9 **B. THE RISK PREMIUM MODEL**

10 **Q. Please describe the theoretical basis of the RPM.**

11 A. The RPM is based on the fundamental financial principle of risk and return, namely, that
12 investors require greater returns for bearing greater risk. The RPM recognizes that
13 common equity capital has greater investment risk than debt capital, as common equity
14 shareholders are behind debt holders in any claim on a company's assets and earnings. As
15 a result, investors require higher returns from common stocks than from investment in
16 bonds, to compensate them for bearing the additional risk.

17 While it is possible to directly observe bond returns and yields, investors' required
18 common equity return cannot be directly determined or observed. According to RPM
19 theory, one can estimate a common equity risk premium over bonds (either historically or
20 prospectively) and use that premium to derive a cost rate of common equity. The cost of
21 common equity equals the expected cost rate for long-term debt capital, plus a risk
22 premium over that cost rate, to compensate common shareholders for the added risk of
23 being unsecured and last-in-line for any claim on the corporation's assets and earnings in
24 the event of a liquidation.

1 **Q. Please explain the total market approach RPM.**

2 A. The total market approach RPM adds a prospective public utility bond yield to an average
3 of: 1) an equity risk premium that is derived from a beta-adjusted total market equity risk
4 premium; and 2) an equity risk premium based on the S&P Utilities Index.

5 **Q. Please explain the basis of the expected bond yield of 5.69% applicable to the Utility
6 Proxy Group.**

7 A. The first step in the total market approach RPM analysis is to determine the expected bond
8 yield. Because both ratemaking and the cost of capital, including common equity cost rate,
9 are prospective in nature, a prospective yield on similarly-rated long-term debt is essential.
10 I rely on a consensus forecast of about 50 economists of the expected yield on Aaa rated
11 corporate bonds for the six calendar quarters ending with the third calendar quarter of 2026,
12 and the long-term projections for 2026 to 2030, and 2031 to 2035 from *Blue Chip Financial
13 Forecasts* (“*Blue Chip*”). As shown on line 1 of page 1 of Schedule DWD-4, the average
14 expected yield on Moody’s Aaa rated corporate bonds is 5.23%. In order to derive an
15 expected yield on A2 rated public utility bonds, I make an upward adjustment of 0.39%,
16 which represents a recent spread between Aaa rated corporate bonds and A2 rated public
17 utility bonds, in order to adjust the expected Aaa rated corporate bond yield to an equivalent
18 Moody’s A2 rated public utility bond.⁹ Adding that recent 0.39% spread to the expected
19 Aaa rated corporate bond yield of 5.23% results in an expected A2 rated public utility bond
20 of 5.62%.

21 Since the Utility Proxy Group’s average Moody’s long-term issuer rating is A3,
22 another adjustment to the expected A2 rated public utility bond yield is needed to reflect
23 the difference in bond ratings. An upward adjustment of 0.07%, which represents one-

⁹ As shown on line 2 and explained in note 2 of page 1 of Schedule DWD-4.

1 third of a recent spread between A2 and Baa2 rated public utility bond yields, is necessary
 2 to make the A2 rated prospective bond yield applicable to an A3 rated public utility bond.¹⁰
 3 Adding the 0.07% to the 5.62% prospective A2 rated public utility bond yield results in a
 4 5.69% expected bond yield for the Utility Proxy Group.

5 **Table 3: Summary of the Calculation of the Utility Proxy Group**
 6 **Projected Bond Yield¹¹**

Prospective Yield on Moody's Aaa Rated Corporate Bonds (<i>Blue Chip</i>)	5.23%
Adjustment to Reflect Yield Spread Between Moody's Aaa Rated Corporate Bonds and Moody's A2 Rated Utility Bonds	0.39%
Adjustment to Reflect the Utility Proxy Group's Average Moody's Bond Rating of A3	<u>0.07%</u>
Prospective Bond Yield Applicable to the Utility Proxy Group	<u>5.69%</u>

7 To develop the indicated ROE using the total market approach RPM, this
 8 prospective bond yield is then added to the average of the three different equity risk
 9 premiums described below.

10 **Q. Please explain how the beta-derived equity risk premium is determined.**

11 A. The components of the beta-derived risk premium model are: 1) an expected market equity
 12 risk premium over corporate bonds, and 2) beta. The derivation of the beta-derived equity
 13 risk premium that I applied to the Utility Proxy Group is shown on lines 1 through 8 of
 14 page 6 of Schedule DWD-4. The total beta-derived equity risk premium I applied was
 15 based on an average of three historical market data-based equity risk premiums, a *Value*

¹⁰ As shown on line 4 and explained in note 3, page 1 of Schedule DWD-4. Moody's does not provide public utility bond yields for A3 rated bonds. As such, it was necessary to estimate the difference between A2 rated and A3 rated public utility bonds. Because there are three steps between Baa2 and A2 (Baa2 to Baa1, Baa1 to A3, and A3 to A2) I assumed an adjustment of one-third of the difference between the A2 rated and Baa2 rated public utility bond yield was appropriate.

¹¹ As shown on page 1 of Schedule DWD-4.

1 *Line*-based equity risk premium, and combined *Value Line*, Bloomberg, and S&P Capital
2 IQ-based equity risk premium. Each of these is described in turn.

3 **Q. How did you derive a market equity risk premium based on long-term historical**
4 **data?**

5 A. To derive a historical market equity risk premium, I used the most recent holding period
6 returns for the large company common stocks less the average historical yield on Moody's
7 Aaa/Aa rated corporate bonds for the period 1928 to 2024. The use of holding period
8 returns over a very long period of time is appropriate because it is consistent with the long-
9 term investment horizon presumed by investing in a going concern, i.e., a company
10 expected to operate in perpetuity.

11 The long-term arithmetic mean monthly total return rate on large company common
12 stocks was 12.05% and the long-term arithmetic mean monthly yield on Moody's Aaa/Aa
13 rated corporate bonds was 5.95% from 1928 to 2024. As shown on line 1 of page 6 of
14 Schedule DWD-4, subtracting the mean monthly bond yield from the total return on large
15 company stocks results in a long-term historical equity risk premium of 6.10%.

16 I used the arithmetic mean monthly total return rates for the large company stocks
17 and yields (income returns) for the Moody's Aaa/Aa rated corporate bonds, because they
18 are appropriate for the purpose of estimating the cost of capital as noted in Kroll's Stocks,
19 Bonds, Bills, and Inflation ("SBBI") Yearbook 2023 ("SBBI - 2023"). The use of the
20 arithmetic mean return rates and yields is appropriate because historical total returns and
21 equity risk premiums provide insight into the variance and standard deviation of returns
22 needed by investors in estimating future risk when making a current investment. If
23 investors relied on the geometric mean of historical equity risk premiums, they would have
24 no insight into the potential variance of future returns because the geometric mean relates

1 to the change over many periods to a constant rate of change, thereby obviating the year-
2 to-year fluctuations, or variance, which is critical to risk analysis.

3 **Q. Please explain the derivation of the regression-based market equity risk premium.**

4 A. To derive the regression analysis-derived market equity risk premium of 6.97%, shown on
5 line 2 of page 6 of Schedule DWD-4, I used the same monthly annualized total returns on
6 large company common stocks relative to the monthly annualized yields on Moody's
7 Aaa/Aa rated corporate bonds as mentioned above. The relationship between interest rates
8 and the market equity risk premium was modeled using the observed monthly market
9 equity risk premium as the dependent variable, and the monthly yield on Moody's Aaa/Aa
10 rated corporate bonds as the independent variable. I used a linear Ordinary Least Squares
11 ("OLS") regression, in which the market equity risk premium is expressed as a function of
12 the Moody's Aaa/Aa rated corporate bond yield:

$$13 \quad RP = \alpha + \beta (R_{Aaa/Aa})$$

14 where:

15 RP = the market equity risk premium;

16 α = the regression intercept coefficient;

17 β = the regression slope coefficient; and

18 $R_{Aaa/Aa}$ = the Moody's Aaa/Aa rated corporate bond yield.

19 Using the equation generated by the regression, an expected equity risk premium
20 of 6.97% is calculated using the average forecast of Aaa rated corporate bond yield of
21 5.23%, as discussed above.

1 **Q. Please explain the derivation of a PRPM equity risk premium.**

2 A. The PRPM, published in the *Journal of Regulatory Economics*,¹² was developed from the
3 work of Robert F. Engle, who shared the Nobel Prize in Economics in 2003 “for methods
4 of analyzing economic time series with time-varying volatility (“ARCH”).¹³ Engle found
5 that volatility changes over time and is related from one period to the next, especially in
6 financial markets. Engle discovered that volatility of prices and returns clusters over time
7 and is therefore highly predictable and can be used to predict future levels of risk and risk
8 premiums.

9 The PRPM estimates the risk-return relationship directly, as the predicted equity
10 risk premium is generated by predicting volatility or risk. The PRPM is not based on an
11 estimate of investor behavior, but rather on an evaluation of the results of that behavior
12 (i.e., the variance of historical equity risk premiums). The inputs to the model are the
13 historical monthly returns on large company common stocks minus the monthly yields on
14 Moody’s Aaa/Aa rated corporate bonds during the period from January 1928 through
15 March 2025.¹⁴ Using a generalized form of ARCH, known as GARCH, I calculated each
16 Proxy Groups’ company’s projected equity risk premium using Eviews[®] statistical
17 software. When the GARCH model is applied to the historical return data, it produces a
18 predicted GARCH variance series and a GARCH coefficient. Multiplying the predicted
19 monthly variance by the GARCH coefficient and then annualizing it¹⁵ produces the

¹² Autoregressive conditional heteroscedasticity. See “A New Approach for Estimating the Equity Risk Premium for Public Utilities”, Pauline M. Ahern, Frank J. Hanley and Richard A. Michelfelder, Ph.D. *The Journal of Regulatory Economics* (December 2011), 40:261-278.

¹³ www.nobelprize.org.

¹⁴ Data from January 1928 to December 2022 is from SBBI - 2023. Data from January 2023 to March 2025 is from Bloomberg.

¹⁵ Annualized Return = (1 + Monthly Return)¹² - 1.

1 predicted annual equity risk premium. The resulting PRPM predicted a market equity risk
2 premium of 7.15%.¹⁶

3 **Q. Please explain the derivation of a projected equity risk premium based on *Value Line***
4 ***Summary and Index* data for your RPM analysis.**

5 A. As noted previously, because both ratemaking and the cost of capital are prospective, a
6 prospective market equity risk premium is needed. The derivation of the forecasted or
7 prospective market equity risk premium can be found in note 4 on page 6 of Schedule
8 DWD-4. Consistent with the premise that total returns are the sum of capital appreciation
9 and income returns, this prospective market return is derived from an average of the three-
10 to five-year median market price appreciation potential by *Value Line Summary and Index*
11 for the 13 weeks ending April 4, 2025, plus an average of the median estimated dividend
12 yield for the common stocks of the 1,700 firms covered in *Value Line's* Standard Edition.¹⁷

13 The average median expected price appreciation is 48.00%, which translates to a
14 10.30% annual appreciation, and when added to the average of *Value Line's* median
15 expected dividend yields of 2.12%, equates to a forecasted annual total return rate on the
16 market of 12.42%. The forecasted Aaa rated bond yield of 5.23% is deducted from the
17 total market return of 12.42%, resulting in an equity risk premium of 7.19% shown on page
18 6, line 4 of Schedule DWD-4.

19 **Q. Please explain the derivation of an equity risk premium based on the S&P 500**
20 **companies.**

21 A. Using data from *Value Line*, Bloomberg, and S&P Capital IQ, I calculated an expected
22 total return on the S&P 500 using expected dividend yields as a proxy for income returns

¹⁶ Shown on line 3, page 6 of Schedule DWD-4.

¹⁷ As explained in detail in page 2, note 1 of Schedule DWD-5.

1 and long-term growth estimates as a proxy for capital appreciation. The expected total
 2 return for the S&P 500 is 15.20%. Subtracting the prospective yield on Aaa-rated corporate
 3 bonds of 5.23% results in a 9.97% projected equity risk premium as shown on page 6, line
 4 5 of Schedule DWD-4.

5 **Q. What is your conclusion of a beta-derived equity risk premium for use in your RPM**
 6 **analysis?**

7 A. I gave equal weight to the five equity risk premiums in arriving at my conclusion of
 8 7.48%.¹⁸

9 **Table 4: Summary of the Calculation of the Equity Risk Premium Using**
 10 **Total Market Returns**¹⁹

Historical Spread Between Total Returns of Large Stocks and Aaa and Aa2 Rated Corporate Bond Yields (1928 – 2024)	6.10%
Regression Analysis on Historical Data	6.97%
PRPM Analysis on Historical Data	7.15%
Prospective Equity Risk Premium using Total Market Returns from <i>Value Line</i> Summary & Index less Projected Aaa Corporate Bond Yields	7.19%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns for the S&P 500 less Projected Aaa Corporate Bond Yields	<u>9.97%</u>
Average	<u>7.48%</u>

11 After calculating the average market equity risk premium of 7.48%, I adjusted it by
 12 beta to account for the risk of the Utility Proxy Group. As discussed below, the beta is a
 13 meaningful measure of prospective relative risk to the market as a whole and is a logical
 14 means by which to allocate a Company's, or proxy group's, share of the market's total
 15 equity risk premium relative to corporate bond yields. As shown on page 1 of Schedule
 16 DWD-5, the average of the mean and median beta for the Utility Proxy Group is 0.71.

¹⁸ See, line 6 on page 6 of Schedule DWD-4.

¹⁹ As shown on page 6 of Schedule DWD-4.

1 Multiplying the beta of the Utility Proxy Group of 0.71 by the market equity risk premium
2 of 7.48% resulted in a beta-adjusted equity risk premium of 5.31% for the Utility Proxy
3 Group.

4 **Q. How did you derive the equity risk premium based on the S&P Utility Index and**
5 **Moody's A-rated public utility bonds?**

6 A. I estimated three equity risk premiums based on S&P Utility Index holding returns, and
7 one equity risk premium based on the expected returns of the S&P Utilities Index, using
8 data from *Value Line*, Bloomberg, and S&P Capital IQ. Turning first to the S&P Utility
9 Index holding period returns, I derived a long-term monthly arithmetic mean equity risk
10 premium between the S&P Utility Index total returns of 10.59% and monthly A rated
11 public utility bond yields of 6.42% from 1928 to 2024, to arrive at an equity risk premium
12 of 4.16%.²⁰ I then used the same historical data to derive an equity risk premium of 4.89%
13 based on a regression of the monthly equity risk premiums. The final S&P Utility Index
14 holding period equity risk premium involved applying the PRPM using the historical
15 monthly equity risk premiums from January 1928 to March 2025 to arrive at a PRPM-
16 derived equity risk premium of 4.83% for the S&P Utility Index.

17 I then derived expected total returns on the S&P Utilities Index of 10.54% using
18 data from *Value Line*, Bloomberg, and S&P Capital IQ and subtracted the prospective A2
19 rated public utility bond yield (5.62%),²¹ which resulted in a risk premium of 4.92%. As
20 with the market equity risk premiums, I averaged each risk premium to arrive at my utility-
21 specific equity risk premium of 4.70%.

²⁰ As shown on line 1 on page 9 of Schedule DWD-4.

²¹ Derived on line 3 of page 1 of Schedule DWD-4.

1
2

Table 5: Summary of the Calculation of the Equity Risk Premium Using S&P Utility Index Holding Returns²²

Historical Spread Between Total Returns of the S&P Utilities Index and A2 Rated Utility Bond Yields (1928 – 2024)	4.16%
Regression Analysis on Historical Data	4.89%
PRPM Analysis on Historical Data	4.83%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns for the S&P Utilities Index less Projected A2 Utility Bond Yields	<u>4.92%</u>
Average	<u>4.70%</u>

3

4 **Q. What is your conclusion of an equity risk premium for use in your total market**
5 **approach RPM analysis?**

6 A. The equity risk premium I applied to the Utility Proxy Group is 5.01%, which is the average
7 of the beta-derived and the S&P utility equity risk premiums of 5.31% and 4.70%,
8 respectively.²³

9 **Q. What is the indicated RPM common equity cost rate based on the total market**
10 **approach?**

11 A. As shown on line 7 of Schedule DWD-4, page 1, I calculated a common equity cost rate of
12 10.70% for the Utility Proxy Group based on the total market approach of the RPM.

13

Table 6: Summary of the Total Market Return Risk Premium Model²⁴

Prospective Moody’s A3 Rated Utility Bond Applicable to the Utility Proxy Group	5.69%
Prospective Equity Risk Premium	<u>5.01%</u>
Indicated Cost of Common Equity	<u>10.70%</u>

²² As shown on page 9 of Schedule DWD-4.
²³ As shown on page 5 of Schedule DWD-4.
²⁴ As shown on page 1 of Schedule DWD-4.

1 **C. THE CAPITAL ASSET PRICING MODEL**

2 **Q. Please explain the theoretical basis of the CAPM.**

3 A. CAPM theory defines risk as the co-variability of a security's returns with the market's
4 returns as measured by beta (β). A beta of less than 1.0 indicates lower variability than the
5 market as a whole, while a beta greater than 1.0 indicates greater variability than the
6 market.

7 The CAPM assumes that all other risk (i.e., all non-market or unsystematic risk)
8 can be eliminated through diversification. The risk that cannot be eliminated through
9 diversification is called market, or systematic, risk. In addition, the CAPM presumes that
10 investors require compensation only for systematic risk, which is the result of
11 macroeconomic and other events that affect the returns on all assets. The model is applied
12 by adding a risk-free rate of return to a market risk premium, which is adjusted
13 proportionately to reflect the systematic risk of the individual security relative to the total
14 market, as measured by beta. The traditional CAPM model is expressed as:

15 $R_s = R_f + \beta(R_m - R_f)$

16 Where: R_s = Return rate on the common stock;

17 R_f = Risk-free rate of return;

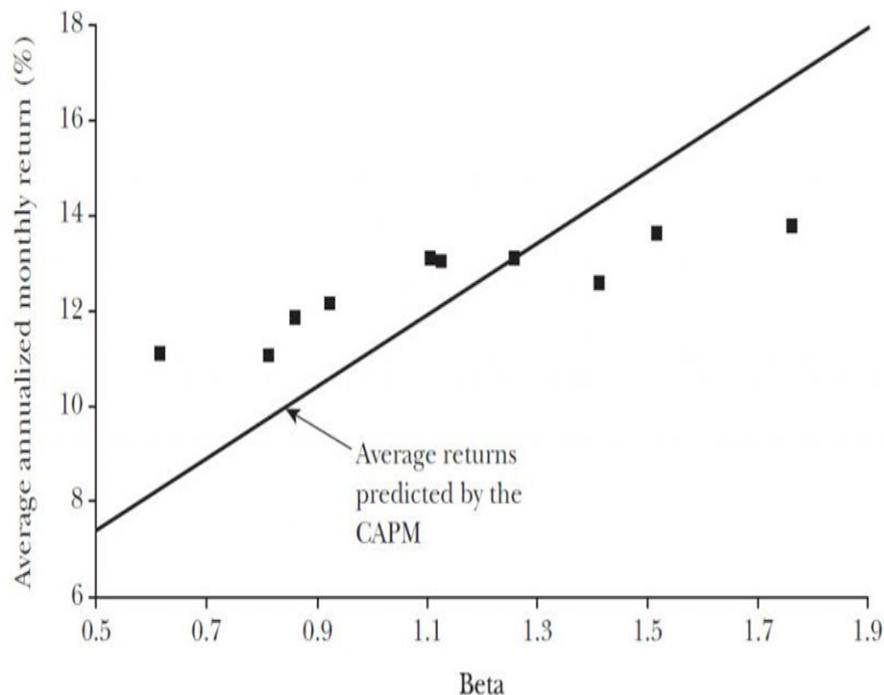
18 R_m = Return rate on the market as a whole; and

19 β = Adjusted beta (volatility of the
20 security relative to the market as a whole).

21 Numerous tests of the CAPM have measured the extent to which security returns
22 and beta are related as predicted by the CAPM, confirming its validity. The empirical
23 CAPM ("ECAPM") reflects the reality that while the results of these tests support the
24 notion that beta is related to security returns, the empirical Security Market Line ("SML")

1 described by the CAPM formula is not as steeply sloped as the predicted SML.²⁵ The
2 ECAPM reflects this empirical reality. Fama and French clearly state regarding Figure 2,
3 below, that "[t]he returns on the low beta portfolios are too high, and the returns on the
4 high beta portfolios are too low."²⁶

Figure 2 <http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430>
Average Annualized Monthly Return versus Beta for Value Weight Portfolios
Formed on Prior Beta, 1928–2003



5
6 In addition, Morin observes that while the results of these tests support the notion
7 that beta is related to security returns, the empirical SML described by the CAPM formula
8 is not as steeply sloped as the predicted SML. Morin states:

²⁵ Roger A. Morin, *Modern Regulatory Finance*, (PUR Books, 2021) at 221. (“Morin”)
²⁶ Eugene F. Fama and Kenneth R. French, “The Capital Asset Pricing Model: Theory and Evidence”, *Journal of Economic Perspectives*, Vol. 18, No. 3, Summer 2004 at 33 (“Fama & French”).
<http://pubs.aeaweb.org/doi/pdfplus/10.1257/0895330042162430>.

1 With few exceptions, the empirical studies agree that ... low-beta securities
2 earn returns somewhat higher than the CAPM would predict, and high-beta
3 securities earn less than predicted.²⁷

4 * * *

5 Therefore, the empirical evidence suggests that the expected return on a
6 security is related to its risk by the following approximation:

$$7 \quad K = R_F + x \beta(R_M - R_F) + (1-x) \beta(R_M - R_F)$$

8 where x is a fraction to be determined empirically. The value of x that best
9 explains the observed relationship [is] Return = 0.0829 + 0.0520 β is
10 between 0.25 and 0.30. If x = 0.25, the equation becomes:

$$11 \quad K = R_F + 0.25(R_M - R_F) + 0.75 \beta(R_M - R_F)^{28}$$

12 Fama and French provide similar support for the ECAPM when they state:

13 The early tests firmly reject the Sharpe-Lintner version of the CAPM. There
14 is a positive relation between beta and average return, but it is too 'flat.'...
15 The regressions consistently find that the intercept is greater than the
16 average risk-free rate... and the coefficient on beta is less than the average
17 excess market return... This is true in the early tests... as well as in more
18 recent cross-section regressions tests, like Fama and French (1992).²⁹

19 Finally, Fama and French further note:

20 Confirming earlier evidence, the relation between beta and average return
21 for the ten portfolios is much flatter than the Sharpe-Linter CAPM predicts.
22 The returns on low beta portfolios are too high, and the returns on the high
23 beta portfolios are too low. For example, the predicted return on the
24 portfolio with the lowest beta is 8.3 percent per year; the actual return as
25 11.1 percent. The predicted return on the portfolio with the highest beta is
26 16.8 percent per year; the actual is 13.7 percent.³⁰

27 Clearly, the justification from Morin, Fama, and French along with their reviews of
28 other academic research on the CAPM, validate the use of the ECAPM. In view of theory
29 and practical research, I have applied both the traditional CAPM and the ECAPM to the
30 companies in the Utility Proxy Group and averaged the results.

27 Morin, at 207.

28 Morin, at 221.

29 Fama & French, at 32.

30 Fama & French, at 33.

1 **Q. What beta did you use in your CAPM analysis?**

2 A. With respect to beta, I considered two methods of calculation: 1) the average beta of the
3 Utility Proxy Group companies reported by Bloomberg; and 2) the average beta of the
4 Utility Proxy Group companies as reported by *Value Line*. While both of those services
5 adjust their calculated (or “raw”) betas to reflect the tendency of beta to regress to the
6 market mean of 1.00, *Value Line* calculates beta over a five-year period, while
7 Bloomberg’s calculation is based on two years of data.

8 **Q. Please describe your selection of a risk-free rate of return.**

9 A. As shown in column 5 on page 1 of Schedule DWD-5, the risk-free rate adopted for both
10 applications of the CAPM is 4.46%. This risk-free rate is based on the average of the *Blue*
11 *Chip* consensus forecast of the expected yields on 30-year U.S. Treasury bonds for the six
12 quarters ending with the third calendar quarter of 2026, and long-term projections for the
13 years 2026 to 2030 and 2031 to 2035.

14 **Q. Why is the yield on long-term U.S. Treasury bonds appropriate for use as the risk-**
15 **free rate?**

16 A. The yield on long-term U.S. Treasury Bonds is almost risk-free, and its term is consistent
17 with the long-term cost of capital to public utilities measured by the yields on A2 rated
18 public utility bonds, the long-term investment horizon inherent in utilities’ common stocks,
19 and the long-term life of the jurisdictional rate base to which the allowed fair rate of return
20 (i.e., cost of capital) will be applied. In contrast, short-term U.S. Treasury yields are more
21 volatile and largely a function of Federal Reserve monetary policy.

1 **Q. Please explain the estimation of the expected risk premium for the market used in**
2 **your CAPM analysis.**

3 A. The basis of the market risk premium is explained in detail in note 1 on page 2 of Schedule
4 DWD-5. As discussed previously, the market risk premium is derived from an average of
5 two historical data-based market risk premiums, one *Value Line* data-based market risk
6 premium and one Bloomberg, *Value Line*, and S&P Capital IQ data-based market risk
7 premium.

8 The long-term income return on U.S. Government Securities of 4.99% was
9 deducted from the monthly historical total market return of 12.29%, which results in an
10 historical market equity risk premium of 7.31%.³¹ I applied a linear OLS regression to the
11 monthly annualized historical returns on the S&P 500 relative to historical yields on long-
12 term U.S. Government Securities. That regression analysis yielded a market equity risk
13 premium of 8.03%. The PRPM market equity risk premium is 8.01% and is derived using
14 the PRPM relative to the yields on long-term U.S. Treasury securities from January 1926
15 through March 2025.

16 The *Value Line*-derived forecasted total market equity risk premium is derived by
17 deducting the forecasted risk-free rate of 4.46%, discussed above, from the *Value Line*
18 Summary and Index projected total annual market return of 12.42%, resulting in a
19 forecasted total market equity risk premium of 7.96%.

20 The S&P 500 projected market equity risk premium using *Value Line*, Bloomberg,
21 and S&P Capital IQ data is derived by subtracting the projected risk-free rate of 4.46%

³¹ SBBI - 2023, at Appendix A-1 (1) through A-1 (3) and Appendix A-7 (19) through A-7 (21); Bloomberg Professional.

1 from the projected total return of the S&P 500 of 15.20%. The resulting market equity risk
2 premium is 10.74%.

3 These five market risk premiums, when averaged, resulted in an average total
4 market equity risk premium of 8.41%.

5 **Table 7: Summary of the Calculation of the Market Risk Premium**
6 **for Use in the CAPM³²**

Historical Spread Between Total Returns of Large Stocks and Long-Term Government Bond Yields (1926 – 2024)	7.31%
Regression Analysis on Historical Data	8.03%
PRPM Analysis on Historical Data	8.01%
Prospective Equity Risk Premium using Total Market Returns from <i>Value Line</i> Summary & Index less Projected 30-Year Treasury Bond Yields	7.96%
Prospective Equity Risk Premium using Measures of Capital Appreciation and Income Returns for the S&P 500 less Projected 30-Year Treasury Bond Yields	<u>10.74%</u>
Average	<u>8.41%</u>

7 **Q. What are the results of your application of the traditional and empirical CAPM to**
8 **the Utility Proxy Group?**

9 A. As shown on page 1 of Schedule DWD-5, the mean result of my CAPM/ECAPM analysis
10 is 10.74%, the median is 10.74%, and the average of the two is 10.74%. Consistent with
11 my reliance on the average of mean and median DCF results discussed above, the indicated
12 common equity cost rate using the CAPM/ECAPM is 10.74%.

³² As shown on page 2 of Schedule DWD-5.

1 **D. COMMON EQUITY COST RATES FOR A PROXY GROUP OF**
2 **DOMESTIC, NON-PRICE REGULATED COMPANIES BASED ON THE**
3 **DCF, RPM, AND CAPM**

4 **Q. Why did you also consider a proxy group of domestic, non-price regulated**
5 **companies?**

6 A. In the *Hope* and *Bluefield* cases, the U.S. Supreme Court did not specify that comparable
7 risk companies had to be utilities. Since the purpose of rate regulation is to be a substitute
8 for the competition of the marketplace, non-price regulated firms operating in the
9 competitive marketplace make an excellent proxy if they are comparable in total risk to the
10 Utility Proxy Group being used to estimate the cost of common equity. The selection of
11 such domestic, non-price regulated competitive firms theoretically and empirically results
12 in a proxy group which is comparable in total risk to the Utility Proxy Group.

13 **Q. How did you select non-price regulated companies that are comparable in total risk**
14 **to the Utility Proxy Group?**

15 A. In order to select a proxy group of domestic, non-price regulated companies similar in total
16 risk to the Utility Proxy Group, I relied on beta and related statistics derived from *Value*
17 *Line* regression analyses of weekly market prices over the most recent 260 weeks (i.e., five
18 years). Using these selection criteria resulted in a proxy group of 36 domestic, non-price
19 regulated firms comparable in total risk to the Utility Proxy Group. Total risk is the sum
20 of non-diversifiable market risk and diversifiable company-specific risks. The following
21 criteria were used in the selection of the domestic, non-price regulated firms:

- 22 (i) They must be covered by *Value Line* (Standard Edition);
- 23 (ii) They must be domestic, non-price regulated companies, i.e., non-utilities;
- 24 (iii) Their beta must lie within plus or minus two standard deviations of the average
25 unadjusted beta of the Utility Proxy Group; and

1 (iv) The residual standard errors of the *Value Line* regressions which gave rise to the
2 unadjusted betas must lie within plus or minus two standard deviations of the
3 average residual standard error of the Utility Proxy Group.

4 Betas are a measure of market or systematic risk, which is not diversifiable. The
5 residual standard errors of the regressions were used to measure each firm's company-
6 specific, diversifiable risk. Companies that have similar betas and similar residual standard
7 errors resulting from the same regression analyses have similar total investment risk.

8 **Q. Have you prepared a schedule which shows the data from which you selected the 36**
9 **domestic, non-price regulated companies that are comparable in total risk to the**
10 **Utility Proxy Group?**

11 A. Yes, the basis of my selection, and both proxy groups' regression statistics, are shown in
12 Schedule DWD-6.

13 **Q. Did you calculate common equity cost rates using the DCF, RPM, and CAPM for the**
14 **Non-Price Regulated Proxy Group?**

15 A. Yes. Because the DCF, RPM, and CAPM have been applied in an identical manner as
16 described above, I will not repeat the details of the rationale and application of each model.
17 One exception is in the application of the RPM, where I did not use public utility-specific
18 equity risk premiums.

19 Page 2 of Schedule DWD-7 contains the derivation of the DCF cost rates. As
20 shown, the indicated common equity cost rate using the DCF for the Non-Price Regulated
21 Proxy Group comparable in total risk to the Utility Proxy Group, is 11.53%.

22 Pages 3 through 5 of DWD-7 contain the data and calculations that support the
23 11.68% RPM cost rate. As shown on line 1 of page 3 of Schedule DWD-7, the consensus
24 prospective yield on Moody's Baa2-rated corporate bonds for the six quarters ending in

1 the third quarter of 2026, and for the years 2026 to 2030 and 2031 to 2035, is 6.03%.³³
2 Since the Non-Price Regulated Proxy Group has an average Moody's long-term issuer
3 rating of A3, a 0.18% downward adjustment of the prospective Baa2 rated corporate bond
4 yield is necessary to reflect a difference in ratings which results in a projected A3-rated
5 corporate bond yield of 5.85% for the non-price regulated proxy group.³⁴

6 When the beta-adjusted risk premium of 5.83%³⁵ relative to the Non-Price
7 Regulated Proxy Group is added to the adjusted prospective A3 rated corporate bond yield
8 of 5.85%, the indicated RPM cost rate is 11.68%.

9 Page 6 contains the inputs and calculations that support my indicated
10 CAPM/ECAPM cost rate of 11.23%.

11 **Q. What is the cost rate of common equity based on the Non-Price Regulated Proxy**
12 **Group comparable in total risk to the Utility Proxy Group?**

13 A. As shown on page 1 of Schedule DWD-7, the results of the DCF, RPM, and CAPM applied
14 to the Non-Price Regulated Proxy Group comparable in total risk to the Utility Proxy
15 Group are 11.53%, 11.68%, and 11.23%, respectively. The average of the mean and
16 median of these models is 11.51%, which I used as the indicated common equity cost rate
17 for the Non-Price Regulated Proxy Group.

³³ *Blue Chip Financial Forecasts*, April 1, 2025, at p. 2, and November 27, 2024, at p. 14.

³⁴ The 0.18% downward adjustment is equal to two-thirds of the spread between A2 and Baa2 corporate bond yields, as illustrated in note 2 on page 3 of Schedule DWD-7.

³⁵ Derived on page 5 of Schedule DWD-7.

1 **VIII. CONCLUSION OF COMMON EQUITY COST RATE BEFORE ADJUSTMENT**

2 **Q. What is the indicated range of common equity cost rates before adjustments?**

3 A. Based on the results of the application of multiple cost of common equity models to the
4 Utility Proxy Group, my recommended range of ROEs attributable to the Utility Proxy
5 Group is between 9.82% and 11.51%.

6 I used multiple cost of common equity models as primary tools in arriving at my
7 recommended common equity cost rate, because no single model is so inherently precise
8 that it can be relied on solely to the exclusion of other theoretically sound models. The use
9 of multiple models adds reliability to the estimation of the common equity cost rate, and
10 the prudence of using multiple cost of common equity models is supported in both the
11 financial literature and regulatory precedent.

12 Based on these common equity cost rate results, I conclude that a range of common
13 equity cost rates between 9.82% and 11.51% is reasonable and appropriate before any
14 adjustments for relative risk differences between the Company and the Proxy Group are
15 made.

16 **IX. ADJUSTMENTS TO THE COMMON EQUITY COST RATE**

17 **A. BUSINESS RISK ADJUSTMENT**

18 **Q. Does York Water's smaller size relative to the Utility Proxy Group companies
19 increase its business risk?**

20 A. Yes. York Water's smaller size relative to the Utility Proxy Group companies indicates
21 greater relative business risk for the Company because, all else being equal, size has a
22 material bearing on risk.

23 Size affects business risk because smaller companies generally are less able to cope
24 with significant events that affect sales, revenues, and earnings. For example, smaller

1 companies face more risk exposure to business cycles and economic conditions, both
2 nationally and locally. Additionally, the loss of revenues from a few larger customers
3 would have a greater effect on a small company than on a bigger company with a larger,
4 more diverse, customer base.

5 As further evidence illustrates that smaller firms are riskier, investors generally
6 demand greater returns from smaller firms to compensate for less marketability and
7 liquidity of their securities. Kroll's Cost of Capital Navigator: U.S. Cost of Capital Module
8 ("Kroll") discusses the nature of the small-size phenomenon, providing an indication of the
9 magnitude of the size premium based on several measures of size. In discussing "Size as
10 a Predictor of Equity Premiums," Kroll states:

11 The size effect is based on the empirical observation that companies of
12 smaller size are associated with greater risk and, therefore, have greater cost
13 of capital [sic]. The "size" of a company is one of the most important risk
14 elements to consider when developing cost of equity capital estimates for
15 use in valuing a business simply because size has been shown to be a
16 *predictor* of equity returns. In other words, there is a significant (negative)
17 relationship between size and historical equity returns - as size *decreases*,
18 returns tend to *increase*, and vice versa. (footnote omitted) (emphasis in
19 original)³⁶

20 Furthermore, in "The Capital Asset Pricing Model: Theory and Evidence," Fama
21 and French note size is indeed a risk factor which must be reflected when estimating the
22 cost of common equity. On page 38, they note:

23 . . . the higher average returns on small stocks and high book-to-market
24 stocks reflect unidentified state variables that produce undiversifiable risks
25 (covariances) in returns not captured in the market return and are priced
26 separately from market betas.³⁷

27 Based on this evidence, Fama and French proposed their three-factor model which
28 includes a size variable in recognition of the effect size has on the cost of common equity.

³⁶ Kroll: Cost of Capital Navigator: U.S. Cost of Capital Module, "Size as a Predictor of Equity Returns," at 1.
³⁷ Fama & French, at 25-43.

1 Also, it is a basic financial principle that the use of funds invested, and not the
2 source of funds, is what gives rise to the risk of any investment.³⁸ Eugene Brigham, a well-
3 known authority, states:

4 A number of researchers have observed that portfolios of small-firms (sic)
5 have earned consistently higher average returns than those of large-firm
6 stocks; this is called the “small-firm effect.” On the surface, it would seem
7 to be advantageous to the small firms to provide average returns in a stock
8 market that are higher than those of larger firms. In reality, it is bad news
9 for the small firm; **what the small-firm effect means is that the capital**
10 **market demands higher returns on stocks of small firms than on**
11 **otherwise similar stocks of the large firms.** (emphasis added)³⁹

12 Consistent with the financial principle of risk and return discussed above, increased
13 relative risk due to small size must be considered in the allowed rate of return on common
14 equity. Therefore, the Commission’s authorization of a cost rate of common equity in this
15 proceeding must appropriately reflect the unique risks of York Water, including its small
16 size, which is justified and supported above by evidence in the financial literature.

17 **Q. Is there a way to quantify a relative risk adjustment due to York Water’s greater**
18 **business risk relative to the Utility Proxy Group?**

19 A. Yes. In the absence of other empirical methods, I compared York Water’s and the Utility
20 Proxy Group’s relative size, as measured by market capitalization on April 1, 2025.

³⁸ Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance (McGraw-Hill Book Company, 1996), at 204-205, 229.

³⁹ Eugene F. Brigham, Fundamentals of Financial Management, Fifth Edition (The Dryden Press, 1989), at 623.

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Table 8: Size as Measured by Market Capitalization for the Company and the Utility Proxy Group

	Market Capitalization* (\$ Millions)	Times Greater Than the Company
York Water	\$500.753	
Utility Proxy Group Median	\$ 2,951.447	5.9x
*From page 1 of Schedule DWD-8.		

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5
6
7

The Company’s market capitalization was at \$500.753 million as of April 1, 2025, compared with the median market capitalization of the Utility Proxy Group of \$2.95 billion as of April 1, 2025. The Utility Proxy Group’s market capitalization is 5.9 times the size of York Water’s market capitalization.

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As a result, it is necessary to upwardly adjust the indicated range of common equity cost rates to reflect York Water’s greater risk due to its smaller relative size. The determination is based on the size premiums for portfolios of New York Stock Exchange, American Stock Exchange, and NASDAQ listed companies ranked by deciles for the 1926 to 2024 period. The average size premium for the Utility Proxy Group with a market capitalization of \$2.95 billion falls in the 6th decile, while York Water’s market capitalization of \$500.753 million places the Company in the 9th decile. The size premium spread between the 6th decile and the 9th decile is 0.73%. Even though a 0.73% upward size adjustment is indicated, I conservatively applied a size premium of 0.15% to York Water’s indicated range of common equity cost rates.

18
19

Q. Does this Commission consider size in determining the authorized ROE?

A. Yes. In Docket No. R-2019-3008212, the Commission stated:

20
21
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23

Based on the evidence of record, we agree with the recommendation of the ALJs that the Company be awarded a DCF cost of common equity which is one standard deviation about the average of the mean and median proxy group ROE from the Company’s DCF analysis. In so doing, we recognize

1 that the Company's size is a factor in assessing its ability to attract capital.
2 Accordingly, we shall reject Citizens' Exception No. 10, I&E's Exception
3 No. 4, and the OCA's Exception No. 7, consistent with the following
4 discussion.

5 We are not convinced by the arguments of I&E and the OCA that the ALJs
6 erred in awarding a size adjustment to Citizens'. Rather, we are of the same
7 position as the ALJs that the Company's witness Mr. D'Ascendis offered
8 persuasive record evidence that there is a general inverse relationship
9 between size and risk, such that smaller utilities like Citizens' face greater
10 risk.⁴⁰

11 **Q. What would be the ROE result using the Commission's method in this case?**

12 A. The average of the mean and median DCF model result is 9.82%, as shown on page 1 of
13 Schedule DWD-3. The standard deviation of those results is 2.69%. Adding the standard
14 deviation to the average of the mean and median DCF result would indicate an ROE of
15 12.51% for York Water, which is higher than my ultimate recommendation in this case. In
16 view of this, my size adjustment should be considered conservative.

17 **B. FLOTATION COST ADJUSTMENT**

18 **Q. What are flotation costs?**

19 A. Flotation costs are those costs associated with the sale of new issuances of common stock.
20 They include market pressure and the mandatory unavoidable costs of issuance (e.g.,
21 underwriting fees and out-of-pocket costs for printing, legal, registration, etc.). For every
22 dollar raised through debt or equity offerings, the Company receives less than one full
23 dollar in financing.

⁴⁰ Pennsylvania Public Utility Commission, Docket No. R-2019-3008212, Opinion and Order, at 103.

1 **Q. Why is it important to recognize flotation costs in the allowed common equity cost**
2 **rate?**

3 A. It is important because there is no other mechanism in the ratemaking paradigm through
4 which such costs can be recognized and recovered. Because these costs are real, necessary,
5 and legitimate, recovery of these costs should be permitted. As noted by Morin:

6 The costs of issuing these securities are just as real as operating and
7 maintenance expenses or costs incurred to build utility plants, and fair
8 regulatory treatment must permit the recovery of these costs....

9 The simple fact of the matter is that common equity capital is not
10 free...[Flotation costs] must be recovered through a rate of return
11 adjustment.⁴¹

12 **Q. Should flotation costs be recognized only if there was an issuance during the test year**
13 **or there is an imminent post-test year issuance of additional common stock?**

14 A. No. As noted above, there is no mechanism to recapture such costs in the ratemaking
15 paradigm other than an adjustment to the allowed common equity cost rate. Flotation costs
16 are charged to capital accounts and are not expensed on a utility's income statement. As
17 such, flotation costs are analogous to capital investments, albeit negative, reflected on the
18 balance sheet. Recovery of capital investments relates to the expected useful lives of the
19 investment. Since common equity has a very long and indefinite life (assumed to be
20 infinity in the standard regulatory DCF model), flotation costs should be recovered through
21 an adjustment to common equity cost rate, even when there has not been an issuance during
22 the test year, or in the absence of an expected imminent issuance of additional shares of
23 common stock.

24 Historical flotation costs are a permanent loss of investment to the utility and should
25 be taken into account. When any company, including a utility, issues common stock,

⁴¹ Morin, at 329.

1 flotation costs are incurred for legal, accounting, printing fees, and the like. For each dollar
2 of issuing market price, a small percentage is expensed and is permanently unavailable for
3 investment in utility rate base. Since these expenses are charged to capital accounts and
4 not expensed on the income statement, the only way to restore the full value of that dollar
5 of issuing price with an assumed investor required return of 10% is for the net investment,
6 \$0.95, to earn more than 10% to net back to the investor a fair return on that dollar. In
7 other words, if a company issues stock at \$1.00 with 5% in flotation costs, it will net \$0.95
8 in investment. Assuming the investor in that stock requires a 10% return on their invested
9 \$1.00 (i.e., a return of \$0.10), the company needs to earn approximately 10.5% on its
10 invested \$0.95 to receive a \$0.10 return.

11 **Q. Do the common equity cost rate models you have used already reflect investors’**
12 **anticipation of flotation costs?**

13 A. No. All of these models assume no transaction costs. The literature is quite clear that these
14 costs are not reflected in the market prices paid for common stocks. For example, Brigham
15 and Daves confirm this and provide the methodology utilized to calculate the flotation
16 adjustment.⁴² In addition, Morin confirms the need for such an adjustment even when no
17 new equity issuance is imminent.⁴³ Consequently, it is proper to include a flotation cost
18 adjustment when using cost of common equity models to estimate the common equity cost
19 rate.

20 **Q. How did you calculate the flotation cost allowance?**

21 A. I modified the DCF calculation to provide a dividend yield that would reimburse investors
22 for issuance costs in accordance with the method cited in literature by Brigham and Daves,

⁴² Eugene F. Brigham and Phillip R. Daves, *Intermediate Financial Management*, 9th Edition, Thomson/Southwestern, at p. 342.

⁴³ Morin, at 3thir-339.

1 as well as by Morin. The flotation cost adjustment recognizes the actual costs of issuing
2 equity that were incurred by York Water. Based on the issuance costs shown on page 1 of
3 Schedule DWD-9, an adjustment of 0.12% is required to reflect the flotation costs
4 applicable to the Utility Proxy Group.

5 **C. PERFORMANCE FACTOR ADJUSTMENT**

6 **Q. Have you reflected the Company's requested rate of return premium based on Code**
7 **66 Pa.C.S. § 523 regarding performance factor?**

8 A. Yes. The adjustment is shown on line 8 of page 2 of Schedule DWD-1. The testimony
9 supporting the performance factor adjustment in the ROE for the Company is sponsored
10 by York Water Witness J.T. Hand. The rate of return premium associated with the
11 performance factor is 0.25%.

12 **Q. What is the indicated cost of common equity after your Company-specific**
13 **adjustments?**

14 A. Applying the 0.15% business risk adjustment, the 0.12% flotation cost adjustment, and the
15 0.25% performance factor adjustment to the indicated range of common equity cost rates
16 between 9.82% and 11.51% results in a range of common equity cost rates between 10.34%
17 and 12.03%.

18 **X. CONCLUSION**

19 **Q. Given the above, what is your recommended ROE for the Company?**

20 A. Given the discussion above and the results of my analytical models, I recommend an ROE
21 of 10.90% to be used in setting rates for the Company at this time.

22 **Q. In your opinion, are the Company's capital structure and long-term debt cost rate**
23 **reasonable?**

24 A. Yes, they are.

1 **Q. Does this conclude your Direct Testimony?**

2 A. Yes, it does.

Summary

Dylan is an experienced consultant and a Certified Rate of Return Analyst (CRRA) and Certified Valuation Analyst (CVA). Dylan joined ScottMadden in 2016 and is a leading expert witness with respect to cost of capital, capital structure, and valuation. He has served as a consultant for investor-owned and municipal utilities and authorities for 16 years. Dylan has testified as an expert witness on over 150 occasions regarding rate of return, cost of service, rate design, and valuation before more than 40 regulatory jurisdictions in the United States and Canada, an American Arbitration Association panel, and the Superior Court of Rhode Island. He also maintains the benchmark index against which the Hennessy Gas Utility Mutual Fund performance is measured. Dylan holds a B.A. in economic history from the University of Pennsylvania and an M.B.A. with concentrations in finance and international business from Rutgers University.

Areas of Specialization

- Expert Witness Testimony
- Rates and Regulation
- Return on Equity
- Valuation
- Utility Regulations
- Rate Case Planning, Management, and Support
- Utility Benchmarking

Recent Articles and Speeches

- "Decoupling, Risk Impacts, and the Cost of Capital." Co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. The Electricity Journal. March 2020
- "Decoupling Impact and Public Utility Conservation Investment." Co-authored with Richard A. Michelfelder, Ph.D., Rutgers University and Pauline M. Ahern. Energy Policy Journal. 130 (2019), 311-319
- "Establishing Alternative Proxy Groups." Presentation before the Society of Utility and Regulatory Financial Analysts: 51st Financial Forum. April 4, 2019. New Orleans, LA
- "Past Is Prologue: Future Test Year." Presentation before the National Association of Water Companies 2017 Southeast Water Infrastructure Summit. May 2, 2017. Savannah, GA
- "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." Presentation before the Society of Utility and Regulatory Financial Analysts: 45th Financial Forum. April 17-18, 2013. Indianapolis, IN

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 in response to a new state regulation which allowed the appraised value of acquired assets into rate base

Sponsor	Date	Case/Applicant	Docket No.	Subject
Regulatory Commission of Alaska				
Goat Lake Hydro, Inc.	12/24	Goat Lake Hydro, Inc.	Docket No. TA7-521	Rate of Return
Alaska Power Company	08/23	Alaska Power Company	Docket No. TA 909-2 / U-23-054	Capital Structure
ENSTAR Natural Gas Company	08/22	ENSTAR Natural Gas Company	Docket No. TA334-4	Rate of Return
Cook Inlet Natural Gas Storage Alaska, LLC	07/21	Cook Inlet Natural Gas Storage Alaska, LLC	Docket No. TA45-733	Capital Structure
Alaska Power Company	09/20	Alaska Power Company; Goat Lake Hydro, Inc.; BBL Hydro, Inc.	Tariff Nos. TA886-2; TA6-521; TA4-573	Capital Structure
Alaska Power Company	07/16	Alaska Power Company	Docket No. TA857-2	Rate of Return
Alberta Utilities Commission				
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	02/23	AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	Proceeding ID. 27084	Determination of Cost-of-Capital Parameters
AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	01/20	AltaLink, L.P., and EPCOR Distribution & Transmission, Inc.	2021 Generic Cost of Capital, Proceeding ID. 24110	Rate of Return
Arizona Corporation Commission				
EPCOR Water Arizona, Inc.	06/24	EPCOR Water Arizona, Inc.	Docket No. WS-01303A-24-0130	Rate of Return
Arizona Water Company	05/24	Arizona Water Company – Northern Group	Docket No. W-01445A-24-0117	Rate of Return
Foothills Water & Sewer, LLC	10/23	Foothills Water & Sewer, LLC	Docket No. WS-21182A-23-0292	Rate of Return and Fair Value Rate Base
Arizona Water Company	12/22	Arizona Water Company – Eastern Group	Docket No. W-01445A-22-0286	Rate of Return
EPCOR Water Arizona, Inc.	08/22	EPCOR Water Arizona, Inc.	Docket No. WS-01303A-22-0236	Rate of Return
EPCOR Water Arizona, Inc.	06/20	EPCOR Water Arizona, Inc.	Docket No. WS-01303A-20-0177	Rate of Return
Arizona Water Company	12/19	Arizona Water Company – Western Group	Docket No. W-01445A-19-0278	Rate of Return
Arizona Water Company	08/18	Arizona Water Company – Northern Group	Docket No. W-01445A-18-0164	Rate of Return
Arkansas Public Service Commission				
Summit Utilities Arkansas, Inc.	01/24	Summit Utilities Arkansas, Inc.	Docket No. 23-079-U	Rate of Return
Southwestern Electric Power Co.	07/21	Southwestern Electric Power Co.	Docket No. 21-070-U	Return on Equity
CenterPoint Energy Resources Corp.	05/21	CenterPoint Arkansas Gas	Docket No. 21-004-U	Return on Equity
California Public Utilities Commission				
Southwest Gas Corporation	07/24	Southwest Gas Corporation	Docket No. A24-09-001	Return on Equity
San Gabriel Valley Water Company	05/23	San Gabriel Valley Water Company	Docket No. A23-05-001	Return on Equity
City of Edmonton, Canada				
EPCOR Water Services, Inc.	05/24	EPCOR Water Services, Inc.	Performance Based Regulation Application	Cost of Capital
Colorado Public Utilities Commission				
Atmos Energy Corporation	08/22	Atmos Energy Corporation	Docket No. 22AL-0348G	Rate of Return
Summit Utilities, Inc.	04/18	Colorado Natural Gas Company	Docket No. 18AL-0305G	Rate of Return
Atmos Energy Corporation	06/17	Atmos Energy Corporation	Docket No. 17AL-0429G	Rate of Return

Sponsor	Date	Case/Applicant	Docket No.	Subject
Commission of the Canada Energy Regulator				
Trans-Northern Pipelines Inc.	11/22	Trans-Northern Pipelines Inc.	Docket No. C-22197	Cost of Capital
Delaware Public Service Commission				
Delmarva Power & Light Co.	09/24	Delmarva Power & Light Co.	Docket No. 24-1044 (Gas)	Return on Equity
Tidewater Utilities, Inc.	08/24	Tidewater Utilities, Inc.	Docket No. 24-0991	Rate of Return
Delmarva Power & Light Co.	07/24	Delmarva Power & Light Co.	Docket No. 24-0868	Alternative Forms of Rate Regulation
Artesian Water Company, Inc.	04/23	Artesian Water Company, Inc.	Docket No. 23-0601	Rate of Return
Delmarva Power & Light Co.	12/22	Delmarva Power & Light Co.	Docket No. 22-0897 (Electric)	Return on Equity
Delmarva Power & Light Co.	01/22	Delmarva Power & Light Co.	Docket No. 22-002 (Gas)	Return on Equity
Delmarva Power & Light Co.	11/20	Delmarva Power & Light Co.	Docket No. 20-0149 (Electric)	Return on Equity
Delmarva Power & Light Co.	10/20	Delmarva Power & Light Co.	Docket No. 20-0150 (Gas)	Return on Equity
Tidewater Utilities, Inc.	11/13	Tidewater Utilities, Inc.	Docket No. 13-466	Capital Structure
Public Service Commission of the District of Columbia				
Washington Gas Light Company	08/24	Washington Gas Light Company	Formal Case No. 1180	Rate of Return
Washington Gas Light Company	04/22	Washington Gas Light Company	Formal Case No. 1169	Rate of Return
Washington Gas Light Company	09/20	Washington Gas Light Company	Formal Case No. 1162	Rate of Return
Federal Energy Regulatory Commission				
LS Power Grid California, LLC	10/20	LS Power Grid California, LLC	Docket No. ER21-195-000	Rate of Return
Florida Public Service Commission				
Peoples Gas System, Inc.	03/25	Peoples Gas System, Inc.	Docket No. 20250029-GU	Return on Equity
Tampa Electric Company	04/24	Tampa Electric Company	Docket No. 20240025-EI	Return on Equity
Peoples Gas System, Inc.	04/23	Peoples Gas System, Inc.	Docket No. 20230023-GU	Rate of Return
Tampa Electric Company	04/21	Tampa Electric Company	Docket No. 20210034-EI	Return on Equity
Peoples Gas System, Inc.	09/20	Peoples Gas System, Inc.	Docket No. 20200051-GU	Rate of Return
Utilities, Inc. of Florida	06/20	Utilities, Inc. of Florida	Docket No. 20200139-WS	Rate of Return
Hawaii Public Utilities Commission				
Launiupoko Irrigation Company, Inc.	12/20	Launiupoko Irrigation Company, Inc.	Docket No. 2020-0217 / Transferred to 2020-0089	Capital Structure
Lanai Water Company, Inc.	12/19	Lanai Water Company, Inc.	Docket No. 2019-0386	Cost of Service / Rate Design
Manele Water Resources, LLC	08/19	Manele Water Resources, LLC	Docket No. 2019-0311	Cost of Service / Rate Design
Kaupulehu Water Company	02/18	Kaupulehu Water Company	Docket No. 2016-0363	Rate of Return
Aqua Engineers, LLC	05/17	Puhi Sewer & Water Company	Docket No. 2017-0118	Cost of Service / Rate Design
Hawaii Resources, Inc.	09/16	Laie Water Company	Docket No. 2016-0229	Cost of Service / Rate Design
Illinois Commerce Commission				
Ameren Illinois Company d/b/a Ameren Illinois	01/25	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 25-0084 (Gas)	Return on Equity
Aqua Illinois, Inc.	01/24	Aqua Illinois, Inc.	Docket No. 24-0044	Rate of Return
Ameren Illinois Company d/b/a Ameren Illinois	01/23	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 23-0082 (Electric)	Return on Equity
Ameren Illinois Company d/b/a Ameren Illinois	01/23	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 23-0067 (Gas)	Return on Equity
Utility Services of Illinois, Inc.	02/21	Utility Services of Illinois, Inc.	Docket No. 21-0198	Rate of Return

Sponsor	Date	Case/Applicant	Docket No.	Subject
Ameren Illinois Company d/b/a Ameren Illinois	07/20	Ameren Illinois Company d/b/a Ameren Illinois	Docket No. 20-0308	Return on Equity
Utility Services of Illinois, Inc.	11/17	Utility Services of Illinois, Inc.	Docket No. 17-1106	Cost of Service / Rate Design
Aqua Illinois, Inc.	04/17	Aqua Illinois, Inc.	Docket No. 17-0259	Rate of Return
Utility Services of Illinois, Inc.	04/15	Utility Services of Illinois, Inc.	Docket No. 14-0741	Rate of Return
Indiana Utility Regulatory Commission				
Aqua Indiana, Inc.	03/16	Aqua Indiana, Inc. Aboite Wastewater Division	Docket No. 44752	Rate of Return
Twin Lakes, Utilities, Inc.	08/13	Twin Lakes, Utilities, Inc.	Docket No. 44388	Rate of Return
Kansas Corporation Commission				
Atmos Energy Corporation	07/19	Atmos Energy Corporation	19-ATMG-525-RTS	Rate of Return
Kentucky Public Service Commission				
Atmos Energy Corporation	09/24	Atmos Energy Corporation	2024-00276	Rate of Return
Bluegrass Water Utility Operating Company	02/23	Bluegrass Water Utility Operating Company	2022-00432	Return on Equity
Atmos Energy Corporation	07/22	Atmos Energy Corporation	2022-00222	PRP Rider Rate
Water Service Corporation of KY	06/22	Water Service Corporation of KY	2022-00147	Rate of Return
Atmos Energy Corporation	07/21	Atmos Energy Corporation	2021-00304	PRP Rider Rate
Atmos Energy Corporation	06/21	Atmos Energy Corporation	2021-00214	Rate of Return
Duke Energy Kentucky, Inc.	06/21	Duke Energy Kentucky, Inc.	2021-00190	Return on Equity
Bluegrass Water Utility Operating Company	10/20	Bluegrass Water Utility Operating Company	2020-00290	Return on Equity
Louisiana Public Service Commission				
Utilities, Inc. of Louisiana	05/21	Utilities, Inc. of Louisiana	Docket No. U-36003	Rate of Return
Southwestern Electric Power Company	12/20	Southwestern Electric Power Company	Docket No. U-35441	Return on Equity
Atmos Energy Corporation	04/20	Atmos Energy Corporation	Docket No. U-35535	Rate of Return
Louisiana Water Service, Inc.	06/13	Louisiana Water Service, Inc.	Docket No. U-32848	Rate of Return
Maine Public Utilities Commission				
Northern Utilities, Inc. d/b/a Unitil	05/23	Northern Utilities, Inc. d/b/a Unitil	Docket No. 2023-00051	Return on Equity
Summit Natural Gas of Maine, Inc.	03/22	Summit Natural Gas of Maine, Inc.	Docket No. 2022-00025	Rate of Return
The Maine Water Company	09/21	The Maine Water Company	Docket No. 2021-00053	Rate of Return
Maryland Public Service Commission				
Washington Gas Light Company	05/23	Washington Gas Light Company	Case No. 9704	Rate of Return
FirstEnergy Service Company	03/23	Potomac Edison Company	Case No. 9695	Rate of Return
Washington Gas Light Company	08/20	Washington Gas Light Company	Case No. 9651	Rate of Return
FirstEnergy Corporation	08/18	Potomac Edison Company	Case No. 9490	Rate of Return
Massachusetts Department of Public Utilities				
Unitil Corporation	09/23	Fitchburg Gas & Electric Co. (Elec.)	D.P.U. 23-80	Rate of Return
Unitil Corporation	09/23	Fitchburg Gas & Electric Co. (Gas)	D.P.U. 23-81	Rate of Return
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Elec.)	D.P.U. 19-130	Rate of Return
Unitil Corporation	12/19	Fitchburg Gas & Electric Co. (Gas)	D.P.U. 19-131	Rate of Return
Liberty Utilities	07/15	Liberty Utilities d/b/a New England Natural Gas Company	D.P.U. 15-75	Rate of Return
Minnesota Public Utilities Commission				
Northern States Power Company	11/01	Northern States Power Company	Docket No. G002/GR-21-678	Return on Equity
Northern States Power Company	10/21	Northern States Power Company	Docket No. E002/GR-21-630	Return on Equity

Sponsor	Date	Case/Applicant	Docket No.	Subject
Northern States Power Company	11/20	Northern States Power Company	Docket No. E002/GR-20-723	Return on Equity
Mississippi Public Service Commission				
Great River Utility Operating Co.	07/22	Great River Utility Operating Co.	Docket No. 2022-UN-86	Rate of Return
Atmos Energy Corporation	03/19	Atmos Energy Corporation	Docket No. 2015-UN-049	Capital Structure
Atmos Energy Corporation	07/18	Atmos Energy Corporation	Docket No. 2015-UN-049	Capital Structure
Missouri Public Service Commission				
Confluence Rivers Utility Operating Company, Inc.	01/23	Confluence Rivers Utility Operating Company, Inc.	Case No. WR-2023-0006/SR-2023-0007	Rate of Return
Spire Missouri, Inc.	12/20	Spire Missouri, Inc.	Case No. GR-2021-0108	Return on Equity
Indian Hills Utility Operating Company, Inc.	10/17	Indian Hills Utility Operating Company, Inc.	Case No. SR-2017-0259	Rate of Return
Raccoon Creek Utility Operating Company, Inc.	09/16	Raccoon Creek Utility Operating Company, Inc.	Case No. SR-2016-0202	Rate of Return
Public Utilities Commission of Nevada				
Southwest Gas Corporation	09/23	Southwest Gas Corporation	Docket No. 23-09012	Return on Equity
Southwest Gas Corporation	09/21	Southwest Gas Corporation	Docket No. 21-09001	Return on Equity
Southwest Gas Corporation	08/20	Southwest Gas Corporation	Docket No. 20-02023	Return on Equity
New Hampshire Public Utilities Commission				
Aquarion Water Company of New Hampshire, Inc.	12/20	Aquarion Water Company of New Hampshire, Inc.	Docket No. DW 20-184	Rate of Return
New Jersey Board of Public Utilities				
Atlantic City Electric Company	11/24	Atlantic City Electric Company	Docket No. ER24110854	Rate of Return
New Jersey Natural Gas Company	01/24	New Jersey Natural Gas Company	Docket No. GR24010071	Rate of Return
Middlesex Water Company	05/23	Middlesex Water Company	Docket No. WR23050292	Rate of Return
FirstEnergy Service Company	03/23	Jersey Central Power & Light Co.	Docket No. ER23030144	Rate of Return
Atlantic City Electric Company	02/23	Atlantic City Electric Company	Docket No. ER23020091	Return on Equity
Middlesex Water Company	05/21	Middlesex Water Company	Docket No. WR21050813	Rate of Return
Atlantic City Electric Company	12/20	Atlantic City Electric Company	Docket No. ER20120746	Return on Equity
FirstEnergy Service Company	02/20	Jersey Central Power & Light Co.	Docket No. ER20020146	Rate of Return
Aqua New Jersey, Inc.	12/18	Aqua New Jersey, Inc.	Docket No. WR18121351	Rate of Return
Middlesex Water Company	10/17	Middlesex Water Company	Docket No. WR17101049	Rate of Return
Middlesex Water Company	03/15	Middlesex Water Company	Docket No. WR15030391	Rate of Return
The Atlantic City Sewerage Company	10/14	The Atlantic City Sewerage Company	Docket No. WR14101263	Cost of Service / Rate Design
Middlesex Water Company	11/13	Middlesex Water Company	Docket No. WR1311059	Capital Structure
New Mexico Public Regulation Commission				
New Mexico Gas Company	09/23	New Mexico Gas Company	Case No. 23-00255-UT	Return on Equity
Southwestern Public Service Co.	11/22	Southwestern Public Service Co.	Case No. 22-00286-UT	Return on Equity
Southwestern Public Service Co.	01/21	Southwestern Public Service Co.	Case No. 20-00238-UT	Return on Equity
North Carolina Utilities Commission				
Pluris Hampstead, LLC	09/24	Pluris Hampstead, LLC	Docket No. W-1305, Sub 38	Rate of Return
Old North State Water Co., Inc.	06/24	Old North State Water Co., Inc.	Docket No. W-1300, Sub 100	Rate of Return
Carolina Water Service, Inc.	07/22	Carolina Water Service, Inc.	Docket No. W-354 Sub 400	Rate of Return
Aqua North Carolina, Inc.	06/22	Aqua North Carolina, Inc.	Docket No. W-218 Sub 573	Rate of Return
Carolina Water Service, Inc.	07/21	Carolina Water Service, Inc.	Docket No. W-354 Sub 384	Rate of Return
Piedmont Natural Gas Co., Inc.	03/21	Piedmont Natural Gas Co., Inc.	Docket No. G-9, Sub 781	Return on Equity
Duke Energy Carolinas, LLC	07/20	Duke Energy Carolinas, LLC	Docket No. E-7, Sub 1214	Return on Equity

Sponsor	Date	Case/Applicant	Docket No.	Subject
Duke Energy Progress, LLC	07/20	Duke Energy Progress, LLC	Docket No. E-2, Sub 1219	Return on Equity
Aqua North Carolina, Inc.	12/19	Aqua North Carolina, Inc.	Docket No. W-218 Sub 526	Rate of Return
Carolina Water Service, Inc.	06/19	Carolina Water Service, Inc.	Docket No. W-354 Sub 364	Rate of Return
Carolina Water Service, Inc.	09/18	Carolina Water Service, Inc.	Docket No. W-354 Sub 360	Rate of Return
Aqua North Carolina, Inc.	07/18	Aqua North Carolina, Inc.	Docket No. W-218 Sub 497	Rate of Return
North Dakota Public Service Commission				
Northern States Power Company	09/21	Northern States Power Company	Case No. PU-21-381	Rate of Return
Northern States Power Company	11/20	Northern States Power Company	Case No. PU-20-441	Rate of Return
Public Utilities Commission of Ohio				
FirstEnergy	06/24	Ohio Edison Co., Cleveland Electric Illuminating Co., Toledo Edison Co.	Case No. 24-0468-EL-AIR	Rate of Return
Aqua Ohio, Inc.	11/22	Aqua Ohio, Inc.	Case No. 22-1094-WW-AIR	Rate of Return
Duke Energy Ohio, Inc.	10/21	Duke Energy Ohio, Inc.	Case No. 21-887-EL-AIR	Return on Equity
Aqua Ohio, Inc.	07/21	Aqua Ohio, Inc.	Case No. 21-0595-WW-AIR	Rate of Return
Aqua Ohio, Inc.	05/16	Aqua Ohio, Inc.	Case No. 16-0907-WW-AIR	Rate of Return
Pennsylvania Public Utility Commission				
Valley Energy, Inc.	04/25	C&T Enterprises	Docket No. R-2025-3054393	Rate of Return
Wellsboro Electric Company	04/25	C&T Enterprises	Docket No. R-2025-3054392	Rate of Return
Citizens' Electric Company of Lewisburg	04/25	C&T Enterprises	Docket No. R-2025-3054394	Rate of Return
FirstEnergy	04/24	Pennsylvania Electric Company	Docket No. R-2024-3047068	Rate of Return
Columbia Water Company	05/23	Columbia Water Company	Docket No. R-2023-3040258	Rate of Return
Borough of Ambler	06/22	Borough of Ambler – Bureau of Water	Docket No. R-2022-3031704	Rate of Return
Citizens' Electric Company of Lewisburg	05/22	C&T Enterprises	Docket No. R-2022-3032369	Rate of Return
Valley Energy Company	05/22	C&T Enterprises	Docket No. R-2022-3032300	Rate of Return
Community Utilities of Pennsylvania, Inc.	04/21	Community Utilities of Pennsylvania, Inc.	Docket No. R-2021-3025207	Rate of Return
Vicinity Energy Philadelphia, Inc.	04/21	Vicinity Energy Philadelphia, Inc.	Docket No. R-2021-3024060	Rate of Return
Delaware County Regional Water Control Authority	02/20	Delaware County Regional Water Control Authority	Docket No. A-2019-3015173	Valuation
Valley Energy, Inc.	07/19	C&T Enterprises	Docket No. R-2019-3008209	Rate of Return
Wellsboro Electric Company	07/19	C&T Enterprises	Docket No. R-2019-3008208	Rate of Return
Citizens' Electric Company of Lewisburg	07/19	C&T Enterprises	Docket No. R-2019-3008212	Rate of Return
Steelton Borough Authority	01/19	Steelton Borough Authority	Docket No. A-2019-3006880	Valuation
Mahoning Township, PA	08/18	Mahoning Township, PA	Docket No. A-2018-3003519	Valuation
SUEZ Water Pennsylvania Inc.	04/18	SUEZ Water Pennsylvania Inc.	Docket No. R-2018-000834	Rate of Return
Columbia Water Company	09/17	Columbia Water Company	Docket No. R-2017-2598203	Rate of Return
Veolia Energy Philadelphia, Inc.	06/17	Veolia Energy Philadelphia, Inc.	Docket No. R-2017-2593142	Rate of Return
Emporium Water Company	07/14	Emporium Water Company	Docket No. R-2014-2402324	Rate of Return
Columbia Water Company	07/13	Columbia Water Company	Docket No. R-2013-2360798	Rate of Return
Penn Estates Utilities, Inc.	12/11	Penn Estates, Utilities, Inc.	Docket No. R-2011-2255159	Capital Structure / Long-Term Debt Cost Rate
South Carolina Public Service Commission				
Blue Granite Water Co.	12/19	Blue Granite Water Company	Docket No. 2019-292-WS	Rate of Return

Sponsor	Date	Case/Applicant	Docket No.	Subject
Carolina Water Service, Inc.	02/18	Carolina Water Service, Inc.	Docket No. 2017-292-WS	Rate of Return
Carolina Water Service, Inc.	06/15	Carolina Water Service, Inc.	Docket No. 2015-199-WS	Rate of Return
Carolina Water Service, Inc.	11/13	Carolina Water Service, Inc.	Docket No. 2013-275-WS	Rate of Return
United Utility Companies, Inc.	09/13	United Utility Companies, Inc.	Docket No. 2013-199-WS	Rate of Return
Utility Services of South Carolina, Inc.	09/13	Utility Services of South Carolina, Inc.	Docket No. 2013-201-WS	Rate of Return
Tega Cay Water Services, Inc.	11/12	Tega Cay Water Services, Inc.	Docket No. 2012-177-WS	Capital Structure
South Dakota Public Service Commission				
Northern States Power Company	06/22	Northern States Power Company	Docket No. EL22-017	Rate of Return
Tennessee Public Utility Commission				
CSWR – Limestone Water Utility Operating Company	07/24	CSWR – Limestone Water Utility Operating Company	Docket No. 24-00044	Capital Structure, Cost of Debt, Return on Equity
Piedmont Natural Gas Company	07/20	Piedmont Natural Gas Company	Docket No. 20-00086	Return on Equity
Public Utility Commission of Texas				
CSWR TX Utility Operating Co, LLC	12/24	CSWR TX Utility Operating Co, LLC	Docket No. 57386	Rate of Return
BVRT Utility Holding Co., LLC	07/24	Texas Water Utilities, LP	Docket No. 56664	Rate of Return
Texas Water Utilities, LP	06/24	Texas Water Utilities, LP	Docket No. 56665	Rate of Return
Southwestern Public Service Co.	02/23	Southwestern Public Service Co.	Docket No. 54634	Return on Equity
CSWR – Texas Utility Operating Company, LLC	02/23	CSWR – Texas Utility Operating Company, LLC	Docket No. 54565	Rate of Return
Oncor Electric Delivery Co. LLC	05/22	Oncor Electric Delivery Co. LLC	Docket No. 53601	Return on Equity
Southwestern Public Service Co.	02/21	Southwestern Public Service Co.	Docket No. 51802	Return on Equity
Southwestern Electric Power Co.	10/20	Southwestern Electric Power Co.	Docket No. 51415	Rate of Return
Texas Railroad Commission				
Atmos Energy Corporation – Mid-Texas Division	11/24	Atmos Energy Corporation – Mid-Texas Division	Docket No. OS-24-00019196	Return on Equity
Atmos Energy Corporation – West Texas Division	10/24	Atmos Energy Corporation – West Texas Division	Docket No. OS-24-00018879	Return on Equity
Atmos Pipeline – Texas, a Division of Atmos Energy Corporation	05/23	Atmos Pipeline – Texas, a Division of Atmos Energy Corporation	Docket No. OS-23-00013758	Return on Equity
Virginia State Corporation Commission				
Aqua Virginia, Inc.	07/23	Aqua Virginia, Inc.	PUR-2023-00073	Rate of Return
Washington Gas Light Company	06/22	Washington Gas Light Company	PUR-2022-00054	Return on Equity
Virginia Natural Gas, Inc.	04/21	Virginia Natural Gas, Inc.	PUR-2020-00095	Return on Equity
Massanutten Public Service Corporation	12/20	Massanutten Public Service Corporation	PUE-2020-00039	Return on Equity
Aqua Virginia, Inc.	07/20	Aqua Virginia, Inc.	PUR-2020-00106	Rate of Return
WGL Holdings, Inc.	07/18	Washington Gas Light Company	PUR-2018-00080	Rate of Return
Atmos Energy Corporation	05/18	Atmos Energy Corporation	PUR-2018-00014	Rate of Return
Aqua Virginia, Inc.	07/17	Aqua Virginia, Inc.	PUR-2017-00082	Rate of Return
Massanutten Public Service Corp.	08/14	Massanutten Public Service Corp.	PUE-2014-00035	Rate of Return / Rate Design
Public Service Commission of West Virginia				
FirstEnergy Service Company	05/23	Monongahela Power Company and The Potomac Edison Company	Case No. 23-0460-E-42T	Return on Equity
FirstEnergy Service Company	12/21	Monongahela Power Company and The Potomac Edison Company	Case No. 21-0857-E-CN (ELG)	Return on Equity



Appendix A - Resume and Testimony Listing of:
Dylan W. D'Ascendis, CRRA, CVA
Partner

Sponsor	Date	Case/Applicant	Docket No.	Subject
FirstEnergy Service Company	11/21	Monongahela Power Company and The Potomac Edison Company	Case No. 21-0813-E-P (Solar)	Return on Equity

The York Water Company
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The York Water Company
Recommended Capital Structure and Cost Rates
for Ratemaking Purposes

<u>Type of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	45.42%	4.54% (1)	2.06%
Common Equity	<u>54.58%</u>	10.90% (2)	<u>5.95%</u>
Total	<u>100.00%</u>		<u>8.01%</u>

Notes:

(1) Company provided.

(2) From page 2 of this Schedule.

The York Water Company
Brief Summary of Common Equity Cost Rate

<u>Line No.</u>	<u>Principal Methods</u>	<u>Proxy Group of Six Water Companies</u>
1.	Discounted Cash Flow Model (DCF) (1)	9.82%
2.	Risk Premium Model (RPM) (2)	10.70%
3.	Capital Asset Pricing Model (CAPM) (3)	10.74%
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	<u>11.51%</u>
5.	Indicated Common Equity Cost Rate before Adjustment for Unique Risk	9.82% - 11.51%
6.	Business Risk Adjustment (5)	0.15%
7.	Flotation Cost Adjustment (6)	0.12%
8.	Performance Factor Adjustment (7)	<u>0.25%</u>
9.	Indicated Common Equity Cost Rate after Adjustment	<u><u>10.34% - 12.03%</u></u>
10.	Recommended Common Equity Cost Rate	<u><u>10.90%</u></u>

- Notes:
- (1) From page 1 of Schedule DWD-3.
 - (2) From page 1 of Schedule DWD-4.
 - (3) From page 1 of Schedule DWD-5.
 - (4) From page 1 of Schedule DWD-7.
 - (5) Business risk adjustment to reflect York Water's unique risk compared to the Utility Proxy Group as detailed in Mr. D'Ascendis' Direct Testimony.
 - (6) From page 1 of Schedule DWD-9.
 - (7) Performance factor adjustment as explained in the Company's Direct Testimony.

Proxy Group of Six Water Companies
Capitalization and Financial Statistics (1)
2020 - 2024, Inclusive

	2024	2023	2022	2021	2020	
	(MILLIONS OF DOLLARS)					
<u>Capitalization Statistics</u>						
<u>Amount of Capital Employed</u>						
Total Permanent Capital	\$7,576.842	\$7,035.915	\$6,283.805	\$5,897.865	\$5,348.616	
Short-Term Debt	\$283.611	\$177.812	\$327.680	\$155.749	\$340.249	
Total Capital Employed	<u>\$7,860.453</u>	<u>\$7,213.727</u>	<u>\$6,611.485</u>	<u>\$6,053.614</u>	<u>\$5,688.865</u>	
<u>Indicated Average Capital Cost Rates (2)</u>						
Total Debt	4.29 %	4.14 %	3.57 %	3.51 %	3.78 %	
Preferred Stock	2.93 %	2.88 %	2.88 %	2.88 %	2.88 %	
<u>Capital Structure Ratios</u>						
<u>5 YEAR AVERAGE</u>						
<u>Based on Total Permanent Capital:</u>						
Long-Term Debt	48.98 %	49.45 %	49.67 %	50.40 %	50.92 %	49.89 %
Preferred Stock	0.04	0.05	0.05	0.06	0.06	0.05
Common Equity	50.98	50.50	50.28	49.54	49.02	50.06
Total	<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>Based on Total Capital:</u>						
Total Debt, Including Short-Term Debt	52.07 %	53.03 %	52.56 %	52.56 %	54.66 %	52.98 %
Preferred Stock	0.04	0.04	0.05	0.05	0.06	0.04
Common Equity	47.89	46.93	47.39	47.39	45.28	46.98
Total	<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>Financial Statistics</u>						
<u>Financial Ratios - Market Based</u>						
Earnings / Price Ratio	4.97 %	3.29 %	3.00 %	3.20 %	3.24 %	3.54 %
Market / Average Book Ratio	224.75	280.25	329.40	352.63	315.40	300.49
Dividend Yield	2.60	2.10	1.83	1.67	1.83	2.01
Dividend Payout Ratio	42.77	68.37	59.26	52.51	56.85	55.95
<u>Rate of Return on Average Book Common Equity</u>	10.70 %	9.19 %	9.43 %	11.22 %	10.24 %	10.16 %
<u>Total Debt / EBITDA (3)</u>	4.84 x	5.61 x	5.46 x	5.04 x	5.57 x	5.30 x
<u>Funds from Operations / Total Debt (4)</u>	13.26 %	11.18 %	12.33 %	11.28 %	12.04 %	12.02 %
<u>Total Debt / Total Capital</u>	52.07 %	53.03 %	52.56 %	52.56 %	54.66 %	52.98 %

Notes:

- (1) All capitalization and financial statistics for the group are the arithmetic average of the achieved results for each individual company in the group, and are based upon financial statements as originally reported in each year.
- (2) Computed by relating actual total debt interest or preferred stock dividends booked to average of beginning and ending total debt or preferred stock reported to be outstanding.
- (3) Total debt relative to EBITDA (Earnings before Interest, Income Taxes, Depreciation and Amortization).
- (4) Funds from operations (sum of net income, depreciation, amortization, net deferred income tax and investment tax credits, less total AFUDC) plus interest charges as a percentage of total debt.

Source of Information: Company Annual Forms 10-K

Capital Structure Based upon Total Permanent Capital for the
Proxy Group of Six Water Companies
2020 - 2024, Inclusive

	<u>2024</u>	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>5 YEAR AVERAGE</u>
<u>American States Water Company</u>						
Long-Term Debt	41.05 %	42.60 %	38.65 %	37.56 %	40.72 %	40.12 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	<u>58.95</u>	<u>57.40</u>	<u>61.35</u>	<u>62.44</u>	<u>59.28</u>	<u>59.88</u>
Total Capital	<u>100.00 %</u>					
<u>American Water Works Company, Inc.</u>						
Long-Term Debt	56.00 %	55.44 %	59.28 %	58.75 %	59.93 %	57.88 %
Preferred Stock	0.01	0.01	0.02	0.02	0.02	0.02
Common Equity	<u>43.99</u>	<u>44.55</u>	<u>40.70</u>	<u>41.23</u>	<u>40.05</u>	<u>42.10</u>
Total Capital	<u>100.00 %</u>					
<u>California Water Service Group</u>						
Long-Term Debt	41.81 %	42.41 %	44.39 %	47.28 %	46.04 %	44.39 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	<u>58.19</u>	<u>57.59</u>	<u>55.61</u>	<u>52.72</u>	<u>53.96</u>	<u>55.61</u>
Total Capital	<u>100.00 %</u>					
<u>Essential Utilities Inc.</u>						
Long-Term Debt	54.79 %	53.90 %	54.99 %	53.28 %	54.42 %	54.28 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	<u>45.21</u>	<u>46.10</u>	<u>45.01</u>	<u>46.72</u>	<u>45.58</u>	<u>45.72</u>
Total Capital	<u>100.00 %</u>					
<u>Middlesex Water Company</u>						
Long-Term Debt	44.65 %	46.26 %	43.34 %	45.85 %	44.61 %	44.94 %
Preferred Stock	0.20	0.26	0.29	0.31	0.33	0.28
Common Equity	<u>55.15</u>	<u>53.48</u>	<u>56.37</u>	<u>53.84</u>	<u>55.06</u>	<u>54.78</u>
Total Capital	<u>100.00 %</u>					
<u>SIW Group</u>						
Long-Term Debt	55.58 %	56.09 %	57.39 %	59.69 %	59.79 %	57.71 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	<u>44.42</u>	<u>43.91</u>	<u>42.61</u>	<u>40.31</u>	<u>40.21</u>	<u>42.29</u>
Total Capital	<u>100.00 %</u>					
<u>Proxy Group of Six Water Companies</u>						
Long-Term Debt	48.98 %	49.45 %	49.67 %	50.40 %	50.92 %	49.89 %
Preferred Stock	0.04	0.05	0.05	0.06	0.06	0.05
Common Equity	<u>50.98</u>	<u>50.50</u>	<u>50.28</u>	<u>49.54</u>	<u>49.02</u>	<u>50.06</u>
Total Capital	<u>100.00 %</u>					

Source of Information
Annual Forms 10-K

The York Water Company
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for the
Proxy Group of Six Water Companies

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Six Water Companies	Value Line Projected Five Year Growth in EPS (2)	Zack's Five Year Projected Growth Rate in EPS	S&P Capital IQ Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
American States Water Company	2.47 %	1.80 %	1.75 %	3.52 %	2.51 %	6.03 %
American Water Works Company, Inc.	2.32	8.00	7.77	6.76	2.40	9.16
California Water Service Group	2.64	NMF	NMF	9.50	2.77	12.27
Essential Utilities Inc.	3.54	6.60	6.35	6.32	3.65	9.97
Middlesex Water Company	2.49	14.00	13.96	11.82	2.64	14.46
SJW Group	3.28	4.50	4.52	5.17	3.36	8.53
					Average	10.07 %
					Median	9.57 %
					Average of Mean and Median	9.82 %

NA= Not Available
NMF=Not Meaningful Figure

Notes:

- (1) Indicated dividend at 4/1/2025 divided by the average closing price of the last 60 trading days ending 4/1/2025 for each company.
- (2) From pages 2 through 7 of this Schedule.
- (3) Average of columns 2 through 4 excluding negative growth rates and extreme positive values.
- (4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 5) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for American States Water Company, $2.47\% \times (1 + (1/2 \times 3.52\%)) = 2.51\%$.
- (5) Column 5 + Column 6.

Source of Information:

Value Line Investment Survey
www.zacks.com Downloaded on 4/1/2025
S&P Capital IQ

AMERICAN WATER NYSE-AWK				RECENT PRICE	P/E RATIO	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE											
TIMELINESS 3 Raised 3/14/25 SAFETY 2 Raised 10/4/24 TECHNICAL 5 Lowered 2/28/25 BETA .85 (1.00 = Market)				139.70	24.0 (Trailing: 25.9; Median: 29.0)	1.36	2.3%	Target Price Range 2028 2029 2030 320 200 160 120 100 80 60 40 18											
18-Month Target Price Range Low-High Midpoint (% to Mid) \$101-\$162 \$132 (-5%)								% TOT. RETURN 2/25 THIS STOCK INDEX VL ARITH.* 1 yr. 16.6 12.1 3 yr. -5.3 20.8 5 yr. 19.2 96.2											
2028-30 PROJECTIONS High Price 225 Gain (+60%) Ann'l Total Return 14% Low Price 165 (+20%) 7%				Institutional Decisions 202024 3Q2024 4Q2024 to Buy 458 469 496 to Sell 477 430 502 Hld's(000) 172197 188107 193458 Percent shares traded 21 14 7				© VALUE LINE PUB. LLC 28-30											
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Revenues per sh	31.25
13.98	15.49	15.18	16.25	16.28	16.78	17.72	18.54	18.81	19.04	19.97	20.83	21.58	20.85	21.74	24.03	25.20	26.85	"Cash Flow" per sh	12.60
2.89	3.56	3.73	4.27	4.36	4.75	5.13	5.26	5.14	6.15	6.65	7.24	10.46	8.08	9.43	10.75	10.75	Earnings per sh A	7.50	
1.25	1.53	1.72	2.11	2.06	2.39	2.64	2.62	2.38	3.15	3.43	3.91	6.95	4.51	4.90	5.39	5.70	6.15	Div'd Decl'd per sh B	4.45
.82	.86	.90	1.21	.84	1.21	1.33	1.47	1.62	1.78	1.96	2.15	2.36	2.57	2.78	3.00	3.25	3.50	Cap'l Spending per sh	16.00
4.50	4.38	5.27	5.25	5.50	5.33	6.51	7.36	8.04	8.78	9.15	10.05	9.71	12.63	13.22	14.65	16.90	15.25	Book Value per sh D	75.70
22.91	23.59	24.11	25.11	26.52	27.39	28.25	29.24	30.13	32.42	33.83	35.58	40.18	42.30	50.31	53.01	55.55	58.30	Common Shs Outst'g C	210.00
174.63	175.00	175.66	176.99	178.25	179.46	178.28	178.10	178.44	180.68	180.81	181.30	181.61	181.86	194.73	194.92	195.20	195.50	Avg Ann'l P/E Ratio	26.0
15.6	14.6	16.8	16.7	19.9	20.0	20.5	27.7	33.8	27.3	32.9	35.3	23.6	33.6	28.6	24.4	Bold figures are Value Line estimates		Relative P/E Ratio	1.45
1.04	.93	1.05	1.06	1.12	1.05	1.03	1.45	1.70	1.47	1.75	1.81	1.28	1.94	1.59	1.30			Avg Ann'l Div'd Yield	2.3%
4.2%	3.8%	3.1%	3.4%	2.0%	2.5%	2.5%	2.0%	2.0%	2.1%	1.7%	1.6%	1.4%	1.7%	2.0%	2.3%				
CAPITAL STRUCTURE as of 12/31/24 Total Debt \$14049 mil. Due in 5 Yrs \$4140 mil. LT Debt \$12533 mil. LT Interest \$506 mil. (55% of Cap'l)				3159.0	3302.0	3357.0	3440.0	3610.0	3777.0	3920.0	3792.0	4234.0	4684.0	4920	5250	Revenues (\$mill)	6250		
Leases, Uncapitalized: Annual rentals \$10.0 mil. Pension Assets 12/23 \$1622.0 mil. Prd Stock \$3.0 mil. Prd Div'd \$.1 mill. Common Stock 194,947,313 shares as of 2/10/25				476.0	468.0	426.0	567.0	621.0	709.0	1263.0	820.0	944.0	1051.0	1115	1200	Net Profit (\$mill)	1575		
MARKET CAP: \$27.2 billion (Large Cap)				39.1%	39.2%	53.3%	28.2%	25.5%	23.3%	23.0%	18.7%	21.1%	22.5%	22.5%	Income Tax Rate	22.5%			
CURRENT POSITION 2022 2023 12/31/24 (\$MILL.)				--	--	--	--	--	--	--	--	--	5.1%	2.9%	3.0%	3.5%	AFUDC % to Net Profit	3.5%	
ANNUAL RATES of change (per sh) Past 10 Yrs. Past 5 Yrs. Est'd '22-'24 to '28-'30				53.7%	52.4%	54.7%	56.3%	58.5%	59.1%	58.6%	58.7%	54.5%	54.8%	57.0%	59.0%	Long-Term Debt Ratio	56.5%		
REVENUES 3.0% 3.0% 4.0% "Cash Flow" 7.0% 7.5% 3.0% Earnings 8.5% 10.5% 4.5% Dividends 10.0% 9.5% 8.5% Book Value 6.5% 8.5% 6.5%				46.2%	47.5%	45.3%	43.6%	41.4%	40.9%	41.4%	41.3%	45.5%	45.2%	43.0%	41.0%	Common Equity Ratio	43.5%		
QUARTERLY REVENUES (\$ mill.) Full Year				10911	10967	11875	13433	14760	15787	17639	18619	21512	22850	25340	27600	Total Capital (\$mill)	36500		
EARNINGS PER SHARE A Full Year				13933	14992	16246	17409	18232	19710	21084	23223	25438	28038	30500	32500	Net Plant (\$mill)	39000		
QUARTERLY DIVIDENDS PAID B Full Year				5.7%	5.6%	4.9%	5.4%	5.4%	5.7%	8.2%	5.5%	5.4%	5.7%	5.5%	6.0%	Return on Total Cap'l	6.0%		
Business: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to approximately 14 million people in 24 states. Nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 92% of 2024 revenues. Pennsylvania (23%); New Jersey (21%); Missouri (14%); and Illinois (11%) are its largest markets. Has 6,700 employees. Vanguard owns 12.3% of outstanding shares; BlackRock, 9.5%; State St., 5.7%; officers & directors, less than 1.0% (3/24 Proxy). President & Chief Executive Officer: M. Susan Hardwick. Address: 1 Water Street, Camden, NJ 08102. Telephone: 856-346-8200. Internet: www.amwater.com.				9.4%	9.0%	7.9%	9.7%	10.1%	11.0%	17.3%	10.7%	9.6%	10.2%	10.5%	10.5%	Return on Shr. Equity	10.0%		
billions, as many districts do not have the wherewithal to modernize their pipelines. American Water also has a good historical track record of using these purchases to boost earnings. Capital expenditures will remain burdensome for the foreseeable future. Leadership recently released a projected spending budget for upgrading its existing pipeline and wastewater assets. Over the period from 2025 to 2029, expenditures are estimated at \$15.5 billion to \$16.0 billion. We think it will be near the higher end of the range and average \$3.3 billion a year. What's more, this is not cyclical. The company's infrastructure (like all of its peers) is in such poor condition that these outlays will probably continue for decades. These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				4.7%	4.0%	2.5%	4.2%	4.4%	5.0%	11.4%	4.6%	4.2%	4.5%	4.5%	4.5%	Retained to Com Eq	4.0%		
James A. Flood April 4, 2025				50%	56%	68%	56%	57%	55%	34%	57%	56%	57%	57%	All Div's to Net Prof	59%			
billions, as many districts do not have the wherewithal to modernize their pipelines. American Water also has a good historical track record of using these purchases to boost earnings. Capital expenditures will remain burdensome for the foreseeable future. Leadership recently released a projected spending budget for upgrading its existing pipeline and wastewater assets. Over the period from 2025 to 2029, expenditures are estimated at \$15.5 billion to \$16.0 billion. We think it will be near the higher end of the range and average \$3.3 billion a year. What's more, this is not cyclical. The company's infrastructure (like all of its peers) is in such poor condition that these outlays will probably continue for decades. These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2022	842.0	937.0	1082	931.0	3792.0										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2023	938.0	1097	1167	1032	4234.0										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2024	1011	1149	1323	1201	4684.0										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2025	1090	1200	1385	1245	4920										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2026	1170	1280	1475	1325	5250										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2022	.87	1.20	1.63	.81	4.51										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2023	.91	1.45	1.66	.88	4.90										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2024	.95	1.42	1.80	1.22	5.39										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2025	1.10	1.55	1.95	1.10	5.70										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2026	1.15	1.70	2.15	1.15	6.15										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2021	.55	.6025	.6025	.6025	2.36										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2022	.6025	.655	.655	.655	2.57										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2023	.655	.7075	.7075	.7075	2.28										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2024	.7075	.765	.765	.765	3.00										
These shares do not stand out for either short- or long-term performance. The equity's Timeliness rank is only a 3 (Average) while its 18-month prospects are subpar. Furthermore, though American Water has healthy share earnings and dividend growth prospects, the stock's 12% rise in 2025 seems to have factored in the good news.				2025	.765														

(A) Diluted earnings. Excludes nonrecurring losses: '08, \$4.62; '09, \$2.63; '11, \$0.07. Disc. oper.: '06, (\$0.04); '11, \$0.03; '12, (\$0.10); '13, (\$0.01). GAAP used as of 2014. Includes

\$2.70 sh. gain from sale of HOS sub in Q4 '21. Next earnings report due mid-May. (B) Dividends paid in March, June, September, and December. Div. reinvestment available.

(C) In millions. (D) Includes intangibles. On 12/31/24: \$1.229 billion, \$6.31/share.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	60
Earnings Predictability	65

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CALIFORNIA WATER NYSE-CWT				RECENT PRICE	P/E RATIO	(Trailing: 14.0)	RELATIVE P/E RATIO	DIV'D YLD	VALUE LINE		
TIMELINESS 4 Lowered 11/1/24 SAFETY 2 Raised 4/5/24 TECHNICAL 5 Lowered 3/14/25 BETA .85 (1.00 = Market)				45.87	17.1	(Trailing: 14.0)	0.97	2.4%	Target Price Range 2028 2029 2030 120 100 80 64 48 32 24 20 16 12 8		
18-Month Target Price Range Low-High Midpoint (% to Mid) \$38-\$66 \$52 (15%)										2028-30 PROJECTIONS High Price Gain Ann'l Total Low 70 95 (+105%) 27% Return 70 70 (+55%) 13%	
Institutional Decisions 202024 3Q2024 4Q2024 to Buy 144 155 167 to Sell 131 135 141 Hid's(000) 48438 58328 59582 Percent shares traded 18 12 6										% TOT. RETURN 2/25 THIS STOCK V.L. ARITH. INDEX 1 yr. 1.7 12.1 3 yr. -14.9 20.8 5 yr. 4.4 96.2	
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026				© VALUE LINE PUB. LLC 28-30							
10.82 11.05 12.00 13.34 12.23 12.50 12.29 12.70 13.89 14.53 14.72 15.78 14.72 15.22 13.77 17.43 19.75 21.15 Revenues per sh 25.50 1.93 1.93 2.07 2.32 2.21 2.47 2.22 2.34 3.00 3.11 3.14 3.88 3.91 3.79 3.03 5.46 4.45 4.70 "Cash Flow" per sh 5.05 .98 .91 .86 1.02 1.02 1.19 .94 1.01 1.40 1.36 1.31 1.97 1.96 1.77 .91 3.26 3.00 3.20 Earnings per sh 3.45 .59 .60 .62 .63 .64 .65 .67 .69 .72 .75 .79 .85 .92 1.00 1.04 1.12 1.20 1.25 Div'd Decl'd per sh 1.45 2.66 2.97 2.83 3.04 2.58 2.76 3.69 4.77 5.40 5.65 5.64 5.93 5.46 5.90 6.65 7.91 6.75 6.50 Cap'l Spending per sh 6.45 10.13 10.45 10.76 11.28 12.54 13.11 13.41 13.75 14.44 15.19 16.07 18.30 21.92 23.70 24.72 27.49 29.10 31.60 Book Value per sh 35.00 41.53 41.67 41.82 41.98 47.74 47.81 47.88 47.97 48.01 48.07 48.53 50.33 53.72 55.60 57.72 59.48 55.00 53.00 Common Shs Outst'g 50.00 19.7 20.3 21.3 17.9 20.1 19.7 24.8 29.6 26.9 30.3 39.3 24.9 30.5 33.0 NMF 15.3 Bold figures are Avg Ann'l P/E Ratio 24.0 1.31 1.29 1.34 1.14 1.13 1.04 1.25 1.55 1.35 1.64 2.09 1.28 1.65 1.91 NMF .81 Value Line Relative P/E Ratio 1.30 3.1% 3.2% 3.4% 3.5% 3.1% 2.8% 2.9% 2.3% 1.9% 1.8% 1.5% 1.7% 1.5% 1.7% 1.9% 2.3% estimates Avg Ann'l Div'd Yield 1.8%											
CAPITAL STRUCTURE as of 12/31/24 Total Debt \$1177.0 mill. Due in 5 Yrs \$357.0 mill. LT Debt \$1104.6 mill. LT Interest \$40.0 mill. (Total interest coverage: 1.8x) (40% of Cap'l)				588.4 609.4 666.9 698.2 714.6 794.3 790.9 846.4 794.6 1036.8 1085 1120 Revenues (\$mill) 1275 45.0 48.7 67.2 65.6 63.1 96.8 101.1 96.0 51.9 190.8 165 170 Net Profit (\$mill) 173 36.0% 35.5% 30.1% 24.5% 19.1% 11.1% 20.1% 3.3% 3.3% 18.3% 21.0% 21.0% Income Tax Rate 21.0% 4.3% 6.1% 3.5% 3.1% 5.8% 3.3% 1.7% - - 1.7% 1.7% 2.0% 3.0% AFUDC % to Net Profit 5.0% 44.4% 44.6% 42.7% 49.3% 50.2% 45.9% 47.3% 44.4% 42.5% 40.3% 37.5% 35.0% Long-Term Debt Ratio 34.0% 55.6% 55.4% 57.3% 50.7% 49.8% 54.1% 52.7% 55.6% 57.5% 59.7% 62.5% 65.0% Cap'l Expenditure Ratio 66.0% 1154.4 1191.2 1209.3 1440.2 1566.7 1702.4 2233.4 2370.1 2479.5 2739.8 2550 2575 Total Capital (\$mill) 2650 1701.8 1859.3 2048.0 2232.7 2406.4 2650.6 2846.9 3058.9 3773.3 4134.6 4200 4350 Net Plant (\$mill) 4500 5.2% 5.5% 7.1% 5.9% 5.5% 7.0% 5.5% 5.0% 3.1% 7.9% 7.0% 7.0% Return on Total Cap'l 7.0% 7.0% 7.4% 9.7% 9.0% 8.1% 10.5% 8.6% 7.3% 3.6% 11.7% 10.5% 10.0% Return on Shr. Equity 10.0% 7.0% 7.4% 9.7% 9.0% 8.1% 10.5% 8.6% 7.3% 3.6% 11.7% 10.5% 10.0% Return on Com Equity 10.0% 2.0% 2.4% 4.7% 4.0% 3.2% 6.0% 4.6% 3.2% NMF 7.7% 6.0% 6.0% Retained to Com Eq 5.5% 71% 68% 51% 55% 60% 43% 47% 56% 114% 34% 40% 39% All Div's to Net Prof 42%							
Pension Assets-12/24 \$750.0 mill. Oblig. \$524.0 mill. Pfd Stock None Common Stock 59,484,000 shs.				MARKET CAP: \$2.7 billion (Mid Cap) CURRENT POSITION 2022 2023 12/31/24 (\$MILL) Cash Assets 62.1 39.6 50.1 Other 233.4 256.7 274.0 Current Assets 295.5 296.3 324.1 Accts Payable 141.0 157.3 167.5 Debt Due 73.3 180.7 72.4 Other 80.4 92.3 298.5 Current Liab. 294.7 430.3 538.4							
ANNUAL RATES Past Past Est'd '22-'24 of change (per sh) 10 Yrs. 5 Yrs. to '28-'30 Revenues 2.0% 1.5% 8.5% "Cash Flow" 6.0% 6.0% 3.5% Earnings 6.5% 8.0% 9.5% Dividends 5.0% 7.0% 5.5% Book Value 7.5% 10.5% 5.5%				BUSINESS: California Water Service Group provides regulated and nonregulated water service to 499,400 customers in 100 communities in the state of California. Accounts for about 90% of total customers. Also operates in Washington, New Mexico, and Hawaii. Main service areas: San Francisco Bay area, Sacramento Valley, Salinas Valley, San Joaquin Valley & parts of Los Angeles. Acquired Rio Grande Corp; West Hawaii Utilities (9/08). Revenue breakdown, '24: residential, 67%; business, 20%; industrial, 3%; public authorities, 5%; other 5%. Off. and dir. own 1% of common stock (4/24 proxy). Has 1,184 employees. Pres. and CEO: Martin A. Kropelnicki. Inc.: DE. Addr.: 1720 North First St., San Jose, CA 95112-4598. Tel.: 408-367-8200. Internet: www.calwatergroup.com.							
ANNUAL RATES Past Past Est'd '22-'24 of change (per sh) 10 Yrs. 5 Yrs. to '28-'30 Revenues 2.0% 1.5% 8.5% "Cash Flow" 6.0% 6.0% 3.5% Earnings 6.5% 8.0% 9.5% Dividends 5.0% 7.0% 5.5% Book Value 7.5% 10.5% 5.5%				California Water Service Group posted mixed financial results to close out 2024. Fourth-quarter revenues of \$222 million rose slightly versus the previous-year tally, as higher customer rates during the period offset relatively lower water usage. Meanwhile, operating expenses, namely water production costs and higher wholesale rates, pressured profits. A lower income tax benefit during the period also weighed on the bottom line, resulting in a 37% year-over-year earnings contraction, to \$0.33 per share. But despite the tepid December period, California Water's financial performance in 2024 was largely solid.							
QUARTERLY REVENUES (\$ mill.)^F Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2022 173.0 206.2 266.3 200.9 846.4 2023 131.1 194.0 255.0 214.5 794.6 2024 270.7 244.3 299.6 222.2 1036.8 2025 255 265 315 250 1085 2026 260 270 325 265 1120				The company's track record of annual dividend increases has not wavered. The board of directors recently raised the quarterly payout 7%, to \$0.30 per share. At present, the yield is slightly above that of the Value Line median, making these shares a good selection for income-seeking accounts.							
EARNINGS PER SHARE ^A Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2022 .02 .36 1.03 .35 1.77 2023 d.40 .17 .60 .52 .91 2024 1.21 .70 1.03 .33 3.26 2025 .50 .65 1.20 .63 3.00 2026 .55 .70 1.25 .70 3.20				Capital investment is poised to remain solid over the pull to late decade. In tandem with general rate case filings and capital spending budgets to state regulators, management intends to invest more than \$1.5 billion over the next several years. The majority of funds will likely be earmarked for infrastructure upgrades on treatment plants and water delivery systems.							
QUARTERLY DIVIDENDS PAID ^B Cal-endar Mar.31 Jun.30 Sep.30 Dec.31 Full Year 2021 .230 .230 .230 .230 .92 2022 .250 .250 .250 .250 1.00 2023 .260 .260 .260 .260 1.04 2024 .280 .280 .280 .280 1.12 2025 .300				Untimely California Water shares may pique the interest of investors with a long-term horizon. At recent levels, the stock offers attractive total return potential over the 2028-2030 time frame. Moreover, the equity is ranked 2 (Above Average) for Safety and is significantly less volatile than the broader market, which adds to the stock's appeal.							
Cal-endar 2021 2022 2023 2024 2025 .230 .250 .260 .280 .300				We look for modest revenue growth and decent earnings this year. The top line ought to be supported by ongoing rate approval activity, specifically in regard to the in-process 2024 general rate case, as well as increased customer water usage and an expanding customer base. On the earnings front, production costs are likely to remain somewhat elevated in the near term. Thus, our model calls for share net to take a slight step back this year, to \$3.00.							
Cal-endar 2021 2022 2023 2024 2025 .230 .250 .260 .280 .300				Nicholas Patrikis April 4, 2025							

(A) Basic EPS. Excl. nonrecurring gain (loss): '11, 4c. Next earnings report due late May.
 (B) Dividends historically paid in late Feb., May, Aug., and Nov. ■ Div'd reinvestment plan
 (C) Incl. intangible assets. In '24 : \$61.2 mill., \$1.03/sh.
 (D) In millions.
 (E) Excludes non-regulated revenues.
 Company's Financial Strength B++
 Stock's Price Stability 90
 Price Growth Persistence 60
 Earnings Predictability 45
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ESSENTIAL UTIL. NYSE-WTRG				RECENT PRICE	38.15	P/E RATIO	17.2 (Trailing: 17.6 Median: 26.0)	RELATIVE P/E RATIO	0.98	DIV'D YLD	3.5%	VALUE LINE							
TIMELINESS 3 Raised 11/8/24	High: 28.2	31.1	35.8	39.6	39.4	47.3	54.5	53.9	53.7	49.3	41.8	41.2	Target Price Range 2028 2029 2030						
SAFETY 2 Raised 4/5/24	Low: 22.4	24.4	28.0	29.4	32.1	32.7	30.4	41.1	38.5	32.1	33.6	33.2		128					
TECHNICAL 5 Lowered 3/14/25	LEGENDS --- 7.5 x "Cash Flow" p sh Relative Price Strength 5-for-4 split 9/13 Options: Yes Shaded area indicates recession																		
BETA .90 (1.00 = Market)	18-Month Target Price Range Low-High Midpoint (% to Mid) \$32-\$48 \$40 (5%)																		
2028-30 PROJECTIONS Price Gain Ann'l Total High 75 (+95%) 27% Low 55 (+45%) 13%																			
Institutional Decisions 202024 3Q2024 4Q2024 to Buy 273 303 250 to Sell 263 245 317 Hld's(000) 215186 239652 248494 Percent shares traded 15 10 5																			
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 © VALUE LINE PUB. LLC 28-30																			
3.93	4.21	4.10	4.32	4.32	4.37	4.61	4.62	4.56	4.71	4.03	5.96	7.43	8.68	7.52	7.59	8.50	8.95	Revenues per sh	10.75
1.29	1.42	1.45	1.51	1.82	1.89	1.87	2.07	2.12	1.90	1.73	2.21	2.89	2.98	3.08	3.51	3.60	3.85	"Cash Flow" per sh	4.30
.62	.72	.83	.87	1.16	1.20	1.14	1.32	1.35	1.08	1.04	1.12	1.67	1.77	1.86	2.17	2.25	2.45	Earnings per sh	2.75
.44	.47	.50	.54	.58	.63	.69	.74	.79	.85	.91	.97	1.04	1.11	1.19	1.27	1.35	1.43	Div'd Decl'd per sh ^B	1.75
1.66	1.89	1.90	1.98	1.73	1.84	2.07	2.16	2.78	2.49	3.41	4.04	4.03	4.39	4.84	5.00	5.00	5.00	Cap'l Spending per sh	5.00
6.50	6.81	7.21	7.90	8.63	9.27	9.78	10.43	11.02	11.28	17.58	19.09	20.50	20.39	21.57	22.56	22.60	23.60	Book Value per sh ^D	26.05
170.61	172.46	173.60	175.43	177.93	178.59	176.54	177.39	177.71	178.09	220.76	245.39	252.87	263.74	273.30	274.82	279.00	282.00	Common Shs Outst'g ^C	288.00
23.1	21.1	21.3	21.9	21.2	20.8	23.5	23.9	24.7	32.6	39.1	39.6	28.3	26.6	21.6	17.5	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	24.0
1.54	1.34	1.34	1.39	1.19	1.09	1.18	1.25	1.24	1.76	2.08	2.03	1.53	1.54	1.20	.93			Relative P/E Ratio	1.35
3.1%	3.1%	2.8%	2.8%	2.4%	2.5%	2.6%	2.3%	2.4%	2.4%	2.2%	2.2%	2.2%	2.4%	3.0%	3.3%			Avg Ann'l Div'd Yield	2.8%
CAPITAL STRUCTURE as of 12/31/24				814.2	819.9	809.5	838.1	889.7	1462.7	1878.1	2288.0	2053.8	2086.1	2370	2520	Revenues (\$mill)		3100	
Total Debt \$7697.7 mill. Due in 5 Yrs \$1201 mill.				201.8	234.2	239.7	192.0	224.5	284.8	431.6	465.2	498.2	595.3	625	690	Net Profit (\$mill)		795	
LT Debt \$7368.4 mill. LT Interest \$300.0 mill. (54% of Cap'l)				6.9%	8.2%	6.6%	--	--	--	--	--	--	5.0%	10.0%	Income Tax Rate		20.0%		
Pension Assets-12/24 \$312.3 mill. Oblig. \$313.7 mill.				3.1%	3.8%	6.3%	6.8%	7.2%	4.5%	4.8%	1.3%	2.2%	2.2%	2.0%	2.0%	AFUDC % to Net Profit		2.0%	
Pfd Stock None				50.3%	48.4%	50.6%	54.4%	43.1%	54.0%	52.7%	54.2%	53.7%	54.3%	54.0%	54.0%	Long-Term Debt Ratio		54.5%	
Common Stock 274,820,000 shares				49.7%	51.6%	49.4%	45.6%	56.9%	46.0%	47.3%	45.8%	46.3%	45.7%	46.0%	46.0%	Common Equity Ratio		45.5%	
Pfd Stock None				3469.5	3587.7	3965.4	4407.8	6824.2	10192	10964	11748	12722	13567	13700	14450	Total Capital (\$mill)		16500	
Common Stock 274,820,000 shares				4688.9	5001.6	5399.9	5930.3	6345.8	9512.9	10252	11131	12097	13143	14025	15250	Net Plant (\$mill)		17100	
MARKET CAP: \$10.5 billion (Large Cap)				6.9%	7.6%	7.1%	5.5%	4.2%	3.7%	4.8%	5.0%	5.0%	5.4%	4.5%	5.0%	Return on Total Cap'l		5.0%	
CURRENT POSITION (SMILL.)				11.7%	12.7%	12.2%	9.6%	5.8%	6.1%	8.3%	8.7%	8.5%	9.6%	10.0%	10.5%	Return on Shr. Equity		10.5%	
Cash Assets 11.4				4.7%	5.6%	5.1%	2.1%	.9%	1.1%	3.3%	3.3%	3.1%	4.0%	4.0%	4.5%	Retained to Com Eq		4.0%	
Receivables 206.3				60%	56%	59%	79%	84%	82%	60%	62%	64%	60%	58%	All Div's to Net Prof		64%		
Inventory (AvgCst) 46.6				BUSINESS: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Other 393.9				Essential Utilities delivered mixed results to close out 2024. The diversified utility provider reported December-period revenues of \$604 million and earnings of \$0.67 per share. The former came in shy of our call, but improved notably year over year, while the latter bested our mark, and jumped 14% versus the previous-year tally. Toward the end of 2024, the company had some wind at its back, including rising water and natural gas volumes, as well as higher rates. These trends likely carried over into 2025, suggesting the company is poised for a strong start to the year.															
Current Assets 658.2				Modest top- and bottom-line growth is on tap for 2025 and 2026. Based on our model, we look for annual revenue and earnings expansion of 14% and 4%, respectively, for this year. The recently completed acquisition of Greenville Wastewater and the approved Pennsylvania rate case ought to support the advance. For 2026, our introductory estimates suggest that revenues may well improve 6%, to \$2.52 billion, while earnings jump roughly 9%, to \$2.45 per share. Capital investments are expected to accelerate in the years ahead. In particular, Essential Utilities will likely be focused on replacing aging water systems and pipelines, removing harmful chemicals such as PFAS contamination, as well as upgrading the safety of its natural gas operations. This will probably prompt the company to seek additional rate hike approvals from regulators going forward, as some of these costs can be recouped via rate increases. We like these shares predominately for investors with a 3- to 5-year holding period. The stock is just an Average (Timeliness: 3) selection for relative year-ahead price performance, while upside over the 18-month window is also unexciting at recent levels. On the other hand, total return potential over the 2028-2030 time frame is well above the Value Line Investment Survey median. This is supported partly by a healthy dividend yield. Finally, the equity's defensive characteristics, including a favorable rank for Safety (2) and a good Financial Strength mark (A), further sweeten the pot for conservative accounts. <i>Nicholas Patrikis</i> April 4, 2025															
Accts Payable 238.8				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Debt Due 427.9				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Other 355.2				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Current Liab. 1021.9				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '22-'24 to '28-'30				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Revenues 6.0%				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
"Cash Flow" 6.5%				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Earnings 6.0%				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Dividends 7.5%				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Book Value 9.5%				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
QUARTERLY REVENUES (\$ mill.)				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year	Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.													
2022	699.3	448.7	434.6	705.4	2288.0	Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.													
2023	726.5	436.7	411.1	479.5	2053.8	Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.													
2024	612.1	434.4	435.3	604.3	2086.1	Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.													
2025	690	475	490	715	2370	Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.													
2026	705	515	545	755	2520	Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.													
EARNINGS PER SHARE^A				Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential, 32%; commercial, 9%; industrial, wastewater & other, 18%. Gas 40%; other, 1%. Employs 3,291. Off. & dir. own less than 1% of the common stock; BlackRock, 11.3%; Vanguard, 10.2%; Can. Pen. Plan 7.9% (3/24 proxy). Pres. & CEO: Christopher Franklin, Inc.: PA Addr: 762 W Lancaster Ave., Bryn Mawr, PA 19010. Tel.: 610-525-1400. Int.: www.essential.co.															
Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year	Business: Essential Utilities, Inc. became the new name for Aqua America on Feb. 3, 2020, to reflect the acquisition of Peoples, a natural gas utility, which occurred in 3/20. In 2024, Aqua Amer. provided water and wastewater services in the states of PA, OH, TX, IL, NC, NJ, IN, VA, NS, WS. Acquired AquaSource, 7/13; N. Maine Util., 7/15; and others. Water respn. for 59% of revenues in 2024; residential,													

MIDDLESEX WATER NDQ-MSEX				RECENT PRICE	60.49	P/E RATIO	23.2 (Trailing: 24.5 Median: 28.0)	RELATIVE P/E RATIO	1.32	DIV'D YLD	2.1%	VALUE LINE							
TIMELINESS 3 Raised 6/7/24	High: 23.7 28.0 44.5 46.7 60.3 67.7 76.1 121.4 121.1	Low: 19.1 21.2 25.0 32.2 34.0 51.0 48.8 67.1 74.2	90.6 70.7 65.6	61.3 45.4 48.2	Target Price Range			2028 2029 2030											
SAFETY 2 New 10/21/11	LEGENDS 55.00 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession																		
TECHNICAL 5 Lowered 3/14/25	18-Month Target Price Range Low-High Midpoint (% to Mid) \$34-\$76 \$55 (-10%)																		
BETA .80 (1.00 = Market)	2028-30 PROJECTIONS High Price 110 Gain (+80%) Ann'l Total Return 18% Low 80 (+30%) 10%																		
Institutional Decisions				Percent shares traded										% TOT. RETURN 2/25					
202024 3Q2024 4Q2024				12 8 4										THIS STOCK INDEX					
to Buy 94 to Sell 86 Hld's(000) 12771				12 8 4										1 yr. 1.4 3 yr. -46.7 5 yr. -7.9					
				© VALUE LINE PUB. LLC										28-30					
2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Revenues per sh	13.05
6.75	6.60	6.50	6.98	7.19	7.26	7.77	8.16	8.00	8.42	7.72	8.10	8.17	9.21	9.33	10.73	11.70	12.20	"Cash Flow" per sh	4.55
1.40	1.55	1.46	1.56	1.72	1.84	1.97	2.17	2.24	2.89	2.90	3.25	3.28	3.70	3.41	4.04	3.85	4.05	Earnings per sh A	3.45
.72	.96	.84	.90	1.03	1.13	1.22	1.38	1.38	1.96	2.01	2.18	2.07	2.39	1.76	2.47	2.75	2.95	Div'd Decl'd per sh B	1.65
.71	.72	.73	.74	.75	.76	.78	.81	.86	.91	.98	1.04	1.11	1.18	1.26	1.32	1.40	1.46	Cap'l Spending per sh	6.00
1.49	1.90	1.50	1.36	1.26	1.40	1.59	2.91	3.08	4.40	5.11	6.04	4.53	5.18	5.06	4.17	5.45	5.65	Book Value per sh	26.40
10.33	11.13	11.27	11.48	11.82	12.24	12.74	13.40	14.02	15.17	18.57	19.81	20.99	22.65	23.74	24.89	25.05	25.85	Common Shs Outst'g C	18.00
13.52	15.57	15.70	15.82	15.96	16.12	16.23	16.30	16.35	16.40	17.43	17.47	17.52	17.64	17.82	17.89	17.95	18.00	Avg Ann'l P/E Ratio	28.0
21.0	17.8	21.7	20.8	19.7	18.5	19.1	25.6	28.4	22.2	29.7	30.1	44.3	38.6	42.8	23.6	23.6	23.6	Relative P/E Ratio	1.55
1.40	1.13	1.36	1.32	1.11	.97	.96	1.34	1.43	1.20	1.58	1.55	2.39	2.23	1.25	1.25	1.25	1.25	Avg Ann'l Div'd Yield	1.7%
4.7%	4.2%	4.0%	4.0%	3.7%	3.7%	3.3%	2.3%	2.2%	2.1%	1.6%	1.6%	1.2%	1.3%	1.7%	2.3%	2.3%	2.3%		
CAPITAL STRUCTURE as of 12/31/24				2020 2021 2022 2023 2024 2025 2026										Revenues (\$mill)		235			
Total Debt \$360.5 mill. Due in 5 Yrs \$43.7 mill.				126.0 132.9 130.8 138.1 134.6 141.6 143.1 162.4 166.3 191.9 210 220										Net Profit (\$mill)		62.0			
LT Debt \$352.8 mill. LT Interest \$7.5 mill.				20.0 22.7 22.8 32.5 33.9 38.4 36.5 42.4 31.5 44.4 49.0 53.0										Income Tax Rate		21.0%			
(Total interest coverage: 8.5x)				34.5% 34.0% 32.7% 2.8% -- -- 7.1% 3.2% 13.5% 21.0% 21.0%										AFUDC % to Net Profit		2.5%			
(44% of Cap'l)				1.9% 2.7% 3.1% 1.4% 3.4% 3.9% -- -- 3.9% 3.9% 2.5% 2.5%										Long-Term Debt Ratio		38.0%			
Pension Assets-12/24 \$98.6 mill.				39.4% 37.9% 37.5% 37.8% 41.5% 44.0% 45.3% 41.9% 45.7% 44.1% 40.0% 39.5%										Common Equity Ratio		62.0%			
Oblig. \$87.5 mill.				59.8% 61.5% 61.8% 61.6% 58.2% 55.7% 54.4% 57.7% 54.0% 55.7% 60.0% 60.5%										Total Capital (\$mill)		770			
Pfd Stock \$2.4 mill. Pfd Div'd: \$1 mill.				345.4 355.4 370.7 404.1 556.7 621.5 676.3 692.7 783.2 799.7 750 765										Net Plant (\$mill)		1150			
Common Stock 17,890,000 shs.				481.9 517.8 557.2 618.5 705.7 796.6 865.4 920.6 998.3 1067.1 1075 1095										Return on Total Cap'l		8.5%			
				6.6% 7.1% 6.9% 8.9% 6.7% 6.8% 6.0% 6.8% 4.8% 6.3% 7.0% 7.0%										Return on Shr. Equity		13.0%			
				9.6% 10.3% 9.8% 12.9% 10.4% 11.0% 9.9% 10.5% 7.4% 9.9% 11.0% 11.5%										Return on Com Equity		13.0%			
				9.6% 10.3% 9.9% 13.0% 10.4% 11.1% 9.9% 10.6% 7.4% 9.9% 11.0% 11.5%										Retained to Com Eq		7.0%			
MARKET CAP: \$1.1 billion (Small Cap)				3.5% 4.3% 3.8% 7.0% 5.4% 5.8% 4.6% 5.4% 2.1% 4.7% 5.5% 6.0%										All Div's to Net Prof		48%			
				63% 58% 62% 46% 48% 48% 48% 49%															
CURRENT POSITION (SMILL)				2022 2023 12/31/24										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 2024, the Middlesex System accounted for 67% of operating revenues. At 12/31/24, the company had 360 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 1.8% of the com. stock; BlackRock Inst. Trust Co., 14.6% (4/24 proxy). Add.: 485 C Route 1 South, Suite 400, Iselin, NJ 08830. Tele.: 732-634-1500. Int.: www.middlesexwater.com.					
Cash Assets 3.8 2.4 4.2														Middlesex Water's stock price has rebounded a bit since our last review in early January. Shares of the regulated water utility are up more than 10% in value over the past three months subsequent to a sharp dip in price in late 2024. Investor enthusiasm likely stemmed from a combination of solid fourth-quarter financial results and a shift in general investor sentiment toward more-conservative securities amidst recent broader market turbulence. The stock remains a middling selection (3) for Timeliness at this juncture.					
Other 33.5 106.1 38.8														Revenues and earnings are poised to remain in growth mode, in our view. Indeed, Middlesex delivered strong year-over-year top- and bottom-line expansion for 2024, supported largely by base rate increases associated with New Jersey state regulator's rate case approval last March, as well as resilient customer water demand. We think the company is in good shape for this year. On top of higher water rates, an expanding customer base, particularly in the Delaware System, holds promise. To that end, the company recently announced the purchase of water utility assets from Ocean View for \$4.6 million. The acquisition, which will add more than 900 customers to the roster, is slated for completion in April.					
Current Assets 37.3 108.5 43.0														Long-term business prospects are bright. In our view, secular growth drivers include a healthier economic backdrop and increased consumer water consumption, along with periodic rate hikes related to the company's future base rate applications with regulators. Meanwhile, capital investment across the company's aging infrastructure is apt to continue over the pull to late decade. Specifically, management plans to invest nearly \$400 million on treatment plants and water delivery system upgrades through 2027. Subscribers with a holding period of one year or longer may find these shares appealing. At recent levels, total return potential over both the 18-month and 3- to 5-year horizons is attractive. Moreover, the stock's defensive characteristics (good Financial Strength mark and high scores for Price Stability and Earnings Predictability) ought to catch the eye of conservative-leaning investors.					
Accts Payable 24.8 27.6 28.1														<i>Nicholas Patrikis April 4, 2025</i>					
Debt Due 17.5 7.7 7.7																			
Other 75.6 68.5 47.1																			
Current Liab. 117.9 103.8 82.9																			
ANNUAL RATES of change (per sh)																			
Past 10 Yrs. Past 5 Yrs. Est'd '22-'24 to '28-'30																			
Revenues 3.0% 4.0% 5.0%																			
"Cash Flow" 8.0% 7.0% 3.5%																			
Earnings 8.0% 4.5% 7.5%																			
Dividends 5.0% 6.5% 4.5%																			
Book Value 7.0% 8.5% 2.0%																			
QUARTERLY REVENUES (\$ mill.)																			
Cal-endar Mar.31 Jun. 30 Sep. 30 Dec. 31 Full Year																			
2022 36.2 39.7 47.7 38.8 162.4																			
2023 38.2 42.8 46.7 38.6 166.3																			
2024 40.5 49.1 55.1 47.2 191.9																			
2025 50.0 52.0 58.0 50.0 210																			
2026 52.0 55.0 60.0 53.0 220																			
EARNINGS PER SHARE A																			
Cal-endar Mar.31 Jun. 30 Sep. 30 Dec. 31 Full Year																			
2022 .68 .50 .80 .40 2.39																			
2023 .33 .55 .56 .32 1.76																			
2024 .59 .59 .80 .49 2.47																			
2025 .62 .67 .83 .63 2.75																			
2026 .68 .72 .88 .67 2.95																			
QUARTERLY DIVIDENDS PAID B																			
Cal-endar Mar.31 Jun.30 Sep. 30 Dec. 31 Full Year																			
2021 .2725 .2725 .2725 .29 1.11																			
2022 .29 .29 .29 .3125 1.18																			
2023 .3125 .3125 .3125 .325 1.26																			
2024 .325 .325 .325 .34 1.32																			
2025 .34																			

(A) Diluted earnings. Quarterly figures may not sum due to rounding. Next earnings report due early May.

(B) Dividends historically paid in mid-Feb., May, Aug., and November. Div'd reinvestment plan available.

(C) In millions.

Company's Financial Strength	A
Stock's Price Stability	70
Price Growth Persistence	65
Earnings Predictability	85

SJW GROUP NYSE-SJW				RECENT PRICE	51.48	P/E RATIO	16.4 (Trailing: 18.1 Median: 26.0)	RELATIVE P/E RATIO	0.93	DIV'D YLD	3.1%	VALUE LINE							
TIMELINESS 3	Raised 3/21/25	High: 33.7	35.7	56.9	69.3	68.4	74.5	75.0	73.7	83.9	83.7	66.2	56.5	Target Price Range 2028 2029 2030					
SAFETY 2	Raised 10/4/24	Low: 25.5	27.5	28.6	45.4	51.3	53.9	45.6	58.0	55.7	57.0	48.8	44.9						
TECHNICAL 4	Raised 4/4/25	LEGENDS 42.00 x Dividends p sh divided by Interest Rate Relative Price Strength Options: Yes Shaded area indicates recession											160 120 100 80 60 50 40 30 20 15						
BETA .80	(1.00 = Market)																		
18-Month Target Price Range Low-High Midpoint (% to Mid) \$44-\$83 \$64 (25%)																			
2028-30 PROJECTIONS High Low Price 100 75 Gain (+95%) (+45%) Ann'l Total Return 20% 13%																			
Institutional Decisions 202024 3Q2024 4Q2024 to Buy 126 126 124 to Sell 104 108 132 Hid's(000) 24970 31090 32049 Percent shares traded 15 10 5																			
2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026													© VALUE LINE PUB. LLC 28-30						
11.68	11.62	12.85	14.01	13.73	15.76	14.97	16.61	18.97	14.00	14.78	19.77	19.01	20.15	20.93	22.26	25.80	Revenues per sh	28.15	
2.21	2.38	2.80	2.97	2.90	4.42	3.86	4.76	5.24	3.29	3.13	5.28	5.13	5.79	6.03	4.35	5.00	"Cash Flow" per sh	5.40	
.81	.84	1.11	1.18	1.12	2.54	1.85	2.57	2.86	1.82	.82	2.14	2.03	2.43	2.68	2.85	3.20	Earnings per sh ^A	3.75	
.66	.68	.69	.71	.73	.75	.78	.81	1.04	1.12	1.20	1.28	1.36	1.44	1.52	1.60	1.68	1.75	Div'd Decl'd per sh ^{BD}	1.95
3.17	5.65	3.75	5.67	4.68	5.02	5.24	6.95	7.26	5.08	6.25	7.44	8.32	7.85	9.01	8.25	8.75	Cap'l Spending per sh	8.75	
13.66	13.75	14.20	14.71	15.92	17.75	18.83	20.61	22.57	31.31	31.27	32.12	34.28	36.06	38.52	40.65	44.55	47.60	Book Value per sh	51.65
18.50	18.55	18.59	18.67	20.17	20.29	20.38	20.46	20.52	28.40	28.46	28.56	30.18	30.80	32.02	33.63	32.00	31.00	Common Shs Outst'g ^C	30.00
28.7	29.1	21.2	20.4	24.3	11.2	16.6	15.7	18.8	32.7	NMF	30.0	32.9	27.3	26.4	20.0	Bold figures are Value Line estimates		Avg Ann'l P/E Ratio	23.0
1.91	1.85	1.33	1.30	1.37	.59	.84	.82	.95	1.77	NMF	1.54	1.78	1.58	1.47	1.12	1.12	1.12	Relative P/E Ratio	1.30
2.8%	2.8%	2.9%	3.0%	2.7%	2.6%	2.5%	2.0%	1.9%	1.9%	1.9%	2.0%	2.0%	2.2%	2.1%	2.8%	2.8%	2.8%	Avg Ann'l Div'd Yield	2.2%
CAPITAL STRUCTURE as of 12/31/24																	Revenues (\$mill)	845	
Total Debt \$1710.5 mill. Due in 5 Yrs \$44.3 mill.																	Net Profit (\$mill)	113	
LT Debt \$1706.9 mill. LT Interest \$50.0 mill.																	Income Tax Rate	21.0%	
(LT Interest Coverage: 6.7x)																	AFUDC % to Net Profit	1.5%	
																	Long-Term Debt Ratio	39.0%	
																	Common Equity Ratio	61.0%	
																	Total Capital (\$mill)	2550	
Pension Assets-12/23 \$285.5 mill.																	Net Plant (\$mill)	3880	
Oblig. \$297.8 mill.																	Return on Total Cap'l	5.0%	
Pfd Stock None.																	Return on Shr. Equity	7.5%	
Common Stock 33,629,000 shs.																	Return on Com Equity	7.5%	
MARKET CAP: \$1.7 billion (Small Cap)																	Retained to Com Eq	3.5%	
																	All Div'ds to Net Prof	52%	
CURRENT POSITION				2022	2023	12/31/24													
(SMILL)																			
Cash Assets	12.3	9.7	11.1																
Accts Receivable	58.2	67.9	68.7																
Other	84.2	120.8	110.9																
Current Assets	154.7	198.4	190.7																
Accts Payable	29.6	46.1	56.3																
Debt Due	4.4	49.0	3.6																
Other	230.7	247.9	201.3																
Current Liab.	264.7	343.0	261.2																
ANNUAL RATES				Past 10 Yrs.	Past 5 Yrs.	Est'd '21-'23 to '28-'30													
of change (per sh)																			
Revenues	3.5%	5.0%	5.0%																
"Cash Flow"	5.5%	9.0%	-5%																
Earnings	4.5%	7.0%	6.5%																
Dividends	7.5%	5.5%	4.5%																
Book Value	8.5%	5.5%	5.0%																
Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year														
	Mar.31	Jun.30	Sep.30	Dec.31															
2022	124.3	149.0	176.0	171.4	620.7														
2023	137.3	156.9	204.8	171.4	670.4														
2024	149.4	176.2	225.1	197.8	748.5														
2025	155	185	235	200	775														
2026	165	190	240	205	800														
Cal-endar	EARNINGS PER SHARE ^A				Full Year														
	Mar.31	Jun.30	Sep.30	Dec.31															
2022	.12	.38	.82	1.09	2.43														
2023	.37	.58	1.13	.59	2.68														
2024	.36	.64	1.17	.68	2.85														
2025	.50	.70	1.25	.75	3.20														
2026	.55	.75	1.30	.80	3.40														
Cal-endar	QUARTERLY DIVIDENDS PAID ^{BD}				Full Year														
	Mar.31	Jun.30	Sep.30	Dec.31															
2021	.34	.34	.34	.34	1.36														
2022	.36	.36	.36	.36	1.44														
2023	.38	.38	.38	.38	1.52														
2024	.40	.40	.40	.40	1.60														
2025																			

(A) Diluted earnings. Excludes nonrecurring losses: '10, \$0.46. GAAP accounting as of 2013. Next earnings report due early May. Quarterly eggs. 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.

(D) Paid special dividend of \$0.17 per share on 11/17.

Company's Financial Strength	A
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	50

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BUSINESS: SJW Group engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 232,000 connections with a total population of roughly one million people in the San Jose area and 16,000 connections that reach about 88,000 residents in the region between San Antonio and Austin, Texas. The company merged with Connecticut Water (10/19) which provides service to approx. 142,000 connections with a total population of 463,000 people. Has 808 employees. Officers and directors own less than 1.0% of outstanding shares (3/24 proxy). Chairman & CEO: Eric Thornburg. Incorporated: California. Address: 110 West Taylor Street, San Jose, CA 95110. Telephone: (408) 279-7800. Internet: www.sjwater.com.

SJW Group recently announced some upper-level management changes. Effective June 30, 2025, current Chief Executive Officer and President Eric W. Thornburg is set to retire, and will be succeeded by Andrew F. Walters (current CFO). In addition, Bruce A. Hauk will be promoted to President in addition to his COO role. Lastly, Mr. Thornburg will remain on as non-executive Chair of the Board.

The company reported decent results for the full-year 2024. The top line advanced 11% year over year, to \$749 million, while the bottom line rose by 7%, to \$2.85 per share. Driving the performance was a combination of rate increases (+\$62 million), higher customer water usage (+\$15 million), and customer expansion (+\$2.5 million). This more than offset a modest decline in revenues from regulatory adjustments. Elsewhere, rising water production costs and higher administrative fees kept somewhat of a lid on earnings growth during the year. For 2025, our model suggests that revenues may well edge higher 3%, to \$775 million, while profits are poised to jump 12%, to \$3.20 per share.

Long-term capital spending initiatives are ramping up from previously announced levels. Subsequent to investing more than \$350 million on infrastructure and water supply upgrades last year, management has raised its five-year spending plan by 25%, to approximately \$2.0 billion. These increased funds will be utilized primarily to support water and wastewater systems, as well as bolster the treatment of harmful chemicals. Indeed, we think these actions ought to prompt increased rate approval activity in the years ahead, as the company seeks to raise customer rates to recoup a good portion of these investments.

These shares are a worthwhile selection for investors with an eye to late decade. The stock, which is now neutrally ranked (3) for Timeliness, offers solid total return potential over the pull to 2028-2030. This is supported partly by a healthy dividend yield. What's more, a Safety rank of 2 (Above Average) and a high score for Price Stability (90 out of 100) should pique the interest of conservative accounts.

Nicholas Patrikis

April 4, 2025

The York Water Company
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 Six Water Companies</u>
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	5.23 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A2 Rated Public Utility Bonds (2)	<u>0.39</u>
3.	Adjusted Prospective Yield on A2 Rated Public Utility Bonds	5.62 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group (3)	<u>0.07</u>
5.	Adjusted Bond Yield	5.69 %
6.	Equity Risk Premium (4)	<u>5.01</u>
7.	Risk Premium Derived Common Equity Cost Rate	<u><u>10.70 %</u></u>

- Notes: (1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 7 and 8 of this Schedule).
- (2) The average yield spread of A2 rated public utility bonds over Aaa rated corporate bonds of 0.39% from page 2 of this Schedule.
- (3) Adjustment to reflect the A3 Moody's LT issuer rating of the Utility Proxy Group as shown on page 3 of this Schedule. The 0.07% upward adjustment is derived by taking 1/3 of the spread between A2 and Baa2 Public Utility Bonds ($1/3 * 0.20\% = 0.07\%$) as derived from page 2 of this Schedule.
- (4) From page 5 of this Schedule.

The York Water Company
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>A2 Rated Public Utility Bond</u>	<u>Baa2 Rated Public Utility Bond</u>
Mar-2025	5.29 %	5.72 %	5.91 %
Feb-2025	5.32	5.73	5.90
Jan-2025	<u>5.46</u>	<u>5.81</u>	<u>6.05</u>
Average	<u><u>5.36 %</u></u>	<u><u>5.75 %</u></u>	<u><u>5.95 %</u></u>

Selected Bond Spreads

A2 Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:
0.39 % (1)

Baa2 Rated Public Utility Bonds Over A2 Rated Public Utility Bonds:
0.20 % (2)

Notes:

- (1) Column [2] - Column [1].
- (2) Column [3] - Column [2].

Source of Information:

Bloomberg Professional Services

The York Water Company
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Six Water Companies

	<u>Moody's</u>		<u>Standard & Poor's</u>	
	<u>Long-Term Issuer Rating</u>		<u>Long-Term Issuer Rating</u>	
	<u>April 2025</u>		<u>April 2025</u>	
<u>Proxy Group of Six 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 Company (2)	A2	6.0	A+	5.0
American Water Works Company, Inc. (3)	A3	7.0	A	6.0
California Water Service Group	NR	--	A+	5.0
Essential Utilities Inc. (4)	Baa2	9.0	A-	7.0
Middlesex Water Company	NR	--	A	6.0
SJW Group (5)	NR	--	A-	7.0
Average	<u>A3</u>	<u>7.3</u>	<u>A</u>	<u>6.0</u>
York Water Company	<u>NR</u>	<u>--</u>	<u>A-</u>	<u>7.0</u>

Notes:

- (1) From page 4 of this Schedule.
- (2) Ratings are that of Golden State Water Company.
- (3) Ratings are that of New Jersey American Water Co., and Pennsylvania American Water Co.
- (4) Ratings are that of PNG Companies and Aqua Pennsylvania, Inc. (S&P).
- (5) Ratings are that of San Jose Water Company, Connecticut Water Inc., and Connecticut Water Service Inc.

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-

The York Water Company
Judgment of Equity Risk Premium for the
Proxy Group of Six Water Companies

<u>Line No.</u>		<u>Proxy Group of Six Water Companies</u>
1.	Calculated equity risk premium based on the total market using the beta approach (1)	5.31 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A2 rated bonds (2)	<u>4.70</u>
3.	Average equity risk premium	<u><u>5.01 %</u></u>

Notes: (1) From page 6 of this Schedule.
(2) From page 9 of this Schedule.

The York Water Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for the
Proxy Group of Six Water Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Proxy Group of Six Water Companies</u>
1.	Kroll Equity Risk Premium (1)	6.10 %
2.	Regression on Kroll Risk Premium Data (2)	6.97
3.	Kroll Equity Risk Premium based on PRPM (3)	7.15
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	7.19
5.	Equity Risk Premium Based on Bloomberg, Value Line, and S&P Global Market Intelligence S&P 500 Companies (5)	<u>9.97</u>
6.	Conclusion of Equity Risk Premium	7.48 %
7.	Adjusted Beta (6)	<u>0.71</u>
8.	Forecasted Equity Risk Premium	<u><u>5.31</u></u> %

Notes:

- (1) Based on the arithmetic mean historical monthly returns on large company common stocks from Kroll Cost of Capital Navigator and Bloomberg Professional Services minus the arithmetic mean monthly yield of Moody's average Aaa and Aa2 corporate bonds from 1928-2024.
- (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 Aa2 rated corporate bond yields from 1928-2024 referenced in Note 1 above. Using the equation generated from the regression, an expected equity risk premium is calculated using the average consensus forecast of Aaa corporate bonds of 5.23% (from page 1 of this Schedule).
- (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 March 2025.
- (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 5.23% (from page 1 of this Schedule) from the projected 3-5 year total annual market return of 12.42% (described fully in note 1 on page 2 of Schedule DWD-5).
- (5) Using data from the Bloomberg Professional Services, Value Line, and S&P Capital IQ for the S&P 500, an expected total return of 15.20% was derived based upon expected dividend yields as a proxy for income returns and long-term earnings growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 5.23% results in an expected equity risk premium of 9.97%.
- (6) Average of mean and median beta from page 1 of Schedule DWD-5.

Sources of Information:

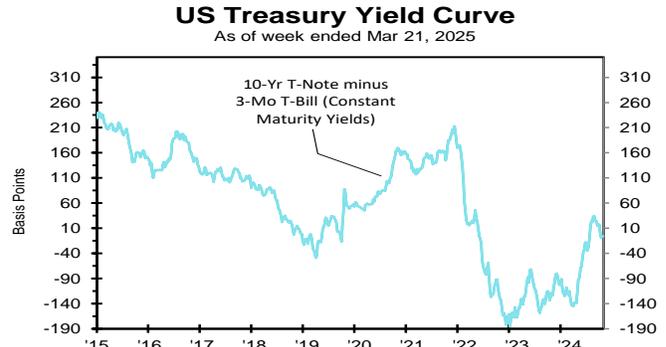
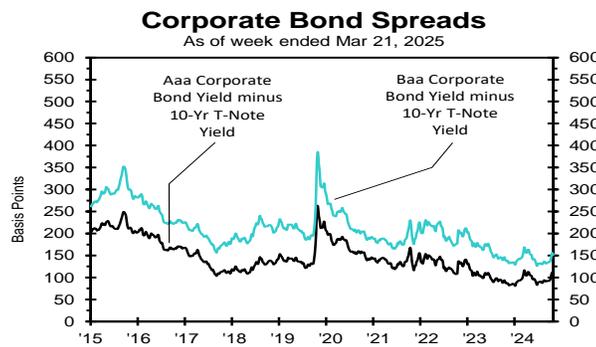
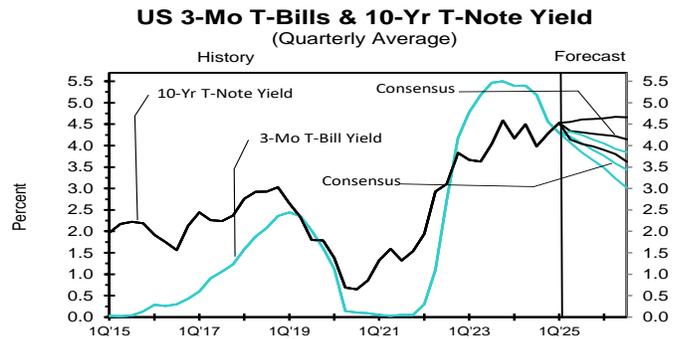
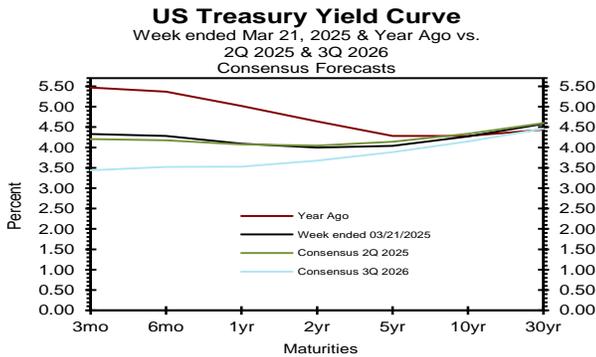
Kroll Cost of Capital Navigator
Industrial Manual and Mergent Bond Record Monthly Update
Value Line Summary and Index
Blue Chip Financial Forecasts, November 27, 2024 and April 1, 2025
S&P Capital IQ
Bloomberg Professional Services

Consensus Forecasts of U.S. Interest Rates and Key Assumptions

Interest Rates	History								Consensus Forecasts-Quarterly Avg.						
	Average For Week Ending				Average For Month				Latest Qtr	2Q 2025	3Q 2025	4Q 2025	1Q 2026	2Q 2026	3Q 2026
	Mar 21	Mar 14	Mar 7	Feb 28	Feb	Jan	Dec	1Q 2025*	2025	2025	2025	2026	2026	2026	
Federal Funds Rate	4.33	4.33	4.33	4.33	4.33	4.33	4.48	4.33	4.3	4.2	4.0	3.8	3.7	3.6	
Prime Rate	7.50	7.50	7.50	7.50	7.50	7.50	7.65	7.50	7.4	7.3	7.1	7.0	6.8	6.7	
SOFR	4.30	4.31	4.34	4.35	4.34	4.32	4.53	4.33	4.3	4.1	4.0	3.8	3.6	3.5	
Commercial Paper, 1-mo.	4.29	4.32	4.32	4.32	4.31	4.32	4.50	4.32	4.3	4.2	4.0	3.9	3.7	3.6	
Treasury bill, 3-mo.	4.33	4.34	4.34	4.31	4.33	4.34	4.39	4.34	4.2	4.1	3.9	3.8	3.6	3.4	
Treasury bill, 6-mo.	4.28	4.27	4.29	4.28	4.30	4.26	4.32	4.28	4.2	4.1	3.9	3.8	3.7	3.5	
Treasury bill, 1 yr.	4.09	4.04	4.05	4.12	4.19	4.18	4.23	4.15	4.1	4.0	3.9	3.8	3.7	3.5	
Treasury note, 2 yr.	4.00	3.96	3.97	4.06	4.21	4.27	4.23	4.16	4.0	4.0	3.9	3.8	3.8	3.7	
Treasury note, 5 yr.	4.04	4.04	4.04	4.11	4.28	4.43	4.25	4.26	4.1	4.1	4.0	4.0	4.0	3.9	
Treasury note, 10 yr.	4.27	4.28	4.25	4.30	4.45	4.63	4.39	4.46	4.3	4.3	4.3	4.2	4.2	4.1	
Treasury note, 30 yr.	4.58	4.59	4.55	4.56	4.68	4.85	4.58	4.72	4.6	4.6	4.5	4.5	4.5	4.5	
Corporate Aaa bond	5.34	5.40	5.33	5.28	5.39	5.55	5.29	5.44	5.3	5.3	5.2	5.2	5.3	5.2	
Corporate Baa bond	5.78	5.84	5.75	5.70	5.82	5.97	5.71	5.87	6.0	6.0	6.0	6.1	6.1	6.1	
State & Local bonds	4.23	4.21	4.13	4.11	4.16	4.18	4.10	4.19	4.3	4.3	4.3	4.3	4.3	4.2	
Home mortgage rate	6.67	6.65	6.63	6.76	6.84	6.96	6.72	6.83	6.7	6.6	6.5	6.5	6.4	6.3	

Key Assumptions	History								Consensus Forecasts-Quarterly					
	2Q		3Q		4Q		1Q		2Q	3Q	4Q	1Q	2Q	3Q
	2023	2023	2023	2024	2024	2024	2024	2025**	2025	2025	2025	2026	2026	2026
Fed's AFE \$ Index	114.6	115.0	116.6	115.5	117.3	114.9	117.9	120.0	118.5	117.7	117.1	116.8	116.5	116.2
Real GDP	2.4	4.4	3.2	1.6	3.0	3.1	2.4	2.3	1.6	1.7	1.7	1.9	1.9	2.0
GDP Price Index	1.9	3.2	1.5	3.0	2.5	1.9	2.3	2.7	2.7	2.7	2.5	2.5	2.1	2.2
Consumer Price Index	3.0	3.5	2.8	3.7	2.8	1.4	3.0	3.5	2.9	2.9	2.7	2.6	2.4	2.4
PCE Price Index	2.9	2.7	1.7	3.4	2.5	1.5	2.4	2.8	2.8	2.7	2.6	2.5	2.2	2.2

Forecasts for interest rates and the Federal Reserve's Advanced Foreign Economies Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index, CPI and PCE 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; SOFR from the New York Fed. *Interest rate data for 1Q 2025 based on historical data through the week ended March 21. **Data for 1Q 2025 for the Fed's AFE \$ Index based on data through the week ended March 21. Figures for 1Q 2025 Real GDP, GDP Chained Price Index, Consumer Price Index, and PCE Price Index are consensus forecasts from the March 2025 survey.



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 2026 through 2030 and averages for the five-year periods 2026-2030 and 2031-2035. 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	
		2026	2027	2028	2029	2030	2026-2030	2031-2035
1. Federal Funds Rate	CONSENSUS	3.4	3.3	3.3	3.2	3.2	3.3	3.2
	Top 10 Average	3.7	3.7	3.6	3.7	3.7	3.7	3.6
	Bottom 10 Average	3.0	2.9	2.9	2.9	2.8	2.9	2.9
2. Prime Rate	CONSENSUS	6.5	6.4	6.4	6.4	6.3	6.4	6.3
	Top 10 Average	6.8	6.8	6.7	6.8	6.7	6.7	6.7
	Bottom 10 Average	6.2	6.1	6.1	6.0	5.9	6.1	5.9
3. SOFR	CONSENSUS	3.3	3.3	3.3	3.3	3.3	3.3	3.3
	Top 10 Average	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.1	3.0	3.0	2.9	2.9	3.0	2.9
4. Commercial Paper, 1-Mo	CONSENSUS	3.4	3.4	3.4	3.4	3.3	3.4	3.3
	Top 10 Average	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.2	3.1	3.1	3.0	3.0	3.1	3.0
5. Treasury Bill Yield, 3-Mo	CONSENSUS	3.3	3.3	3.2	3.2	3.2	3.3	3.2
	Top 10 Average	3.6	3.6	3.5	3.6	3.6	3.6	3.5
	Bottom 10 Average	3.1	3.0	2.9	2.9	2.8	2.9	2.8
6. Treasury Bill Yield, 6-Mo	CONSENSUS	3.4	3.3	3.3	3.2	3.2	3.3	3.2
	Top 10 Average	3.6	3.6	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.1	3.0	3.0	2.9	2.8	3.0	2.9
7. Treasury Bill Yield, 1-Yr	CONSENSUS	3.4	3.4	3.3	3.3	3.3	3.3	3.3
	Top 10 Average	3.7	3.7	3.6	3.6	3.6	3.6	3.6
	Bottom 10 Average	3.2	3.1	3.0	3.0	2.9	3.0	2.9
8. Treasury Note Yield, 2-Yr	CONSENSUS	3.6	3.6	3.5	3.5	3.5	3.5	3.5
	Top 10 Average	3.9	3.9	3.9	3.9	3.9	3.9	3.9
	Bottom 10 Average	3.3	3.2	3.1	3.1	3.0	3.1	3.0
9. Treasury Note Yield, 5-Yr	CONSENSUS	3.8	3.8	3.8	3.8	3.7	3.8	3.8
	Top 10 Average	4.2	4.3	4.3	4.3	4.3	4.3	4.3
	Bottom 10 Average	3.4	3.4	3.3	3.3	3.2	3.3	3.2
10. Treasury Note Yield, 10-Yr	CONSENSUS	4.0	4.1	4.0	4.0	3.9	4.0	4.0
	Top 10 Average	4.5	4.6	4.5	4.5	4.5	4.5	4.5
	Bottom 10 Average	3.6	3.5	3.4	3.4	3.3	3.5	3.4
11. Treasury Bond Yield, 30-Yr	CONSENSUS	4.3	4.4	4.3	4.3	4.2	4.3	4.2
	Top 10 Average	4.7	4.8	4.8	4.8	4.8	4.8	4.7
	Bottom 10 Average	3.9	3.9	3.8	3.8	3.7	3.8	3.8
12. Corporate Aaa Bond Yield	CONSENSUS	5.1	5.2	5.2	5.1	5.1	5.2	5.1
	Top 10 Average	5.5	5.7	5.6	5.6	5.6	5.6	5.5
	Bottom 10 Average	4.8	4.8	4.7	4.7	4.6	4.7	4.6
13. Corporate Baa Bond Yield	CONSENSUS	6.0	6.1	6.0	6.0	6.0	6.0	5.9
	Top 10 Average	6.4	6.6	6.5	6.5	6.4	6.5	6.4
	Bottom 10 Average	5.7	5.7	5.6	5.6	5.5	5.6	5.5
14. State & Local Bonds Yield	CONSENSUS	4.1	4.3	4.2	4.2	4.3	4.2	4.1
	Top 10 Average	4.5	4.6	4.6	4.6	4.6	4.6	4.6
	Bottom 10 Average	3.8	3.9	3.9	3.9	3.9	3.9	3.6
15. Home Mortgage Rate	CONSENSUS	6.2	6.1	6.0	6.0	5.9	6.0	5.9
	Top 10 Average	6.6	6.6	6.5	6.4	6.4	6.5	6.4
	Bottom 10 Average	5.7	5.7	5.6	5.5	5.4	5.6	5.4
A. Fed's AFE Nominal \$ Index	CONSENSUS	115.5	115.0	114.5	113.9	113.2	114.4	112.6
	Top 10 Average	117.0	116.3	115.8	115.3	114.8	115.8	114.6
	Bottom 10 Average	113.9	113.6	113.1	112.5	111.8	113.0	110.9
		----- Year-Over-Year, % Change -----					Five-Year Averages	
		2026	2027	2028	2029	2030	2026-2030	2031-2035
B. Real GDP	CONSENSUS	1.9	2.0	2.0	2.0	2.0	2.0	1.9
	Top 10 Average	2.2	2.3	2.3	2.2	2.2	2.2	2.2
	Bottom 10 Average	1.7	1.7	1.8	1.7	1.7	1.7	1.7
C. GDP Chained Price Index	CONSENSUS	2.2	2.2	2.2	2.2	2.2	2.2	2.1
	Top 10 Average	2.4	2.3	2.3	2.3	2.3	2.3	2.3
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	2.0
D. Consumer Price Index	CONSENSUS	2.4	2.3	2.2	2.2	2.2	2.2	2.2
	Top 10 Average	2.6	2.5	2.4	2.5	2.4	2.5	2.4
	Bottom 10 Average	2.1	2.0	2.0	2.0	2.0	2.0	2.0
E. PCE Price Index	CONSENSUS	2.2	2.2	2.1	2.1	2.1	2.2	2.1
	Top 10 Average	2.5	2.3	2.3	2.3	2.3	2.3	2.3
	Bottom 10 Average	2.0	2.0	1.9	2.0	2.0	2.0	2.0

Projected Market Appreciation of the S&P Utility Index
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>
1.	Historical Equity Risk Premium (1)	4.16 %
2.	Regression of Historical Equity Risk Premium (2)	4.89
3	Forecasted Equity Risk Premium Based on PRPM (3)	4.83
4.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (Bloomberg, Value Line, and S&P Capital IQ Data) (4)	<u>4.92</u>
5.	Average Equity Risk Premium (5)	<u><u>4.70 %</u></u>

- Notes: (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2024. 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 A2 rated public utility bond yields from 1928 - 2024 referenced in note 1 above. Using the equation generated from the regression, an expected equity risk premium is calculated using the prospective A2 rated public utility bond yield of 5.62% (from line 3, page 1 of this Schedule).
- (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 A2 rated public utility bonds from January 1928 - March 2025.
- (4) Using data from Bloomberg, Value Line, and S&P Capital IQ for the S&P Utilities Index, an expected return of 10.54% was derived based on expected dividend yields as a proxy for income returns and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A2 rated public utility bond yield of 5.62%, calculated on line 3 of page 1 of this Schedule results in an equity risk premium of 4.92% (10.54% - 5.62% = 4.92%).
- (5) Average of lines 1 through 4.

The York Water Company
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 Six 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 Company	0.75	0.61	0.68	8.41 %	4.46 %	10.18 %	10.85 %	10.52 %
American Water Works Company, Inc.	0.85	0.55	0.70	8.41	4.46	10.35	10.98	10.66
California Water Service Group	0.85	0.62	0.73	8.41	4.46	10.60	11.17	10.88
Essential Utilities Inc.	0.90	0.61	0.75	8.41	4.46	10.77	11.29	11.03
Middlesex Water Company	0.80	0.57	0.68	8.41	4.46	10.18	10.85	10.52
SJW Group	0.80	0.63	0.72	8.41	4.46	10.52	11.10	10.81
Mean			0.71			10.43 %	11.04 %	10.74 %
Median			0.71			10.43 %	11.04 %	10.74 %
Average of Mean and Median			0.71			10.43 %	11.04 %	10.74 %

Notes on page 2 of this Schedule.

The York Water Company
Notes to Accompany the Application of the CAPM and ECAPM

Notes:

- (1) The market risk premium (MRP) is derived by using five different measures from four sources: Kroll, Value Line, Bloomberg, and S&P Capital IQ as illustrated below:

Measure 1: Kroll Arithmetic Mean MRP (1926-2024)

Arithmetic Mean Monthly Returns for Large Stocks 1926-2024:	12.29 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	4.99
MRP based on Kroll Historical Data:	7.31 %

Measure 2: Application of a Regression Analysis to Kroll Historical Data (1926-2024)

8.03 %

Measure 3: Application of the PRPM to Kroll Historical Data (January 1926 - March 2025)

8.01 %

Measure 4: Value Line Projected MRP (Thirteen weeks ending April 4, 2025)

Total projected return on the market 3-5 years hence*:	12.42 %
Risk-Free Rate (see note 2):	4.46
MRP based on Value Line Summary & Index:	7.96 %

*Forecasted 3-5 year capital appreciation plus expected dividend yield

Measure 5: Bloomberg, Value Line, and S&P Capital IQ Projected Return on the Market based on the S&P 500

Total return on the Market based on the S&P 500:	15.20 %
Risk-Free Rate (see note 2):	4.46
MRP based on Bloomberg, Value Line, and S&P Capital IQ data	10.74 %

Average of all MRP Measures: 8.41 %

- (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 7 and 8 of this Schedule.) The projection of the risk-free rate is illustrated below:

Second Quarter 2025	4.60 %
Third Quarter 2025	4.60
Fourth Quarter 2025	4.50
First Quarter 2026	4.50
Second Quarter 2026	4.50
Third Quarter 2026	4.50
2026-2030	4.30
2031-2035	4.20
	4.46 %

- (3) Average of Column 6 and Column 7.

Sources of Information:

Value Line Summary and Index
Blue Chip Financial Forecasts, November 27, 2024 and April 1, 2025
Kroll Cost of Capital Navigator
S&P Capital IQ
Bloomberg Professional Services

The York Water Company
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Proxy Group of Six Water Companies

The criteria for selection of the proxy group of non-price regulated companies comparable in total risk to the proxy group of six water companies was that the non-price regulated companies be domestic and reported in Value Line Investment Survey (Standard Edition).

The proxy group of non-price regulated companies was selected based on the unadjusted beta range of 0.53 - 0.87 and residual standard error of the regression range of 2.7417 - 3.2701 of the proxy group of six water companies.

These ranges are based upon plus or minus two standard deviations of the unadjusted beta and standard error of the regression. Plus or minus three standard deviations captures 95.50% of the distribution of unadjusted betas and residual standard errors of the regression.

The standard deviation of the Utility Proxy Group's residual standard error of the regression is 0.1321. 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

$$\text{Thus, } 0.1321 = \frac{3.0059}{\sqrt{518}} = \frac{3.0059}{22.7596}$$

Source of Information: Value Line Proprietary Database, March 2025.
Value Line Investment Survey (Standard Edition).

The York Water Company
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
<u>Proxy Group of Six 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 Company	0.75	0.58	2.6641	0.0764
American Water Works Company, Inc.	0.85	0.77	2.7987	0.0803
California Water Service Group	0.85	0.75	2.9699	0.0852
Essential Utilities Inc.	0.90	0.82	2.6401	0.0757
Middlesex Water Company	0.80	0.64	3.9450	0.1131
SJW Group	0.80	0.65	3.0174	0.0865
Average	<u>0.83</u>	<u>0.70</u>	<u>3.0059</u>	<u>0.0862</u>
Beta Range (+/- 2 std. Devs. of Beta) 2 std. Devs. of Beta	0.53 0.17	0.87		
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.7417	3.2701		
Std. dev. of the Res. Std. Err.	0.1321			
2 std. devs. of the Res. Std. Err.	0.2642			

Source of Information: Value Line Proprietary Database, March 2025.

The York Water Company
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Six Water Companies

	[1]	[2]	[3]	[4]
<u>Proxy Group of Thirty-Six Non-Price Regulated 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>
Abbott Laboratories	0.75	0.58	2.7801	0.0797
Allstate Corporation	0.85	0.77	2.8150	0.0807
Assurant, Inc.	0.90	0.82	2.9060	0.0833
AutoZone Inc.	0.75	0.58	2.9871	0.0857
Bristol-Myers Squibb Company	0.75	0.58	3.0267	0.0868
Brown-Forman Corporation 'B'	0.80	0.65	3.0299	0.0869
Casella Waste System	0.85	0.72	2.9209	0.0838
Constellation Brands, Inc.	0.80	0.69	2.9242	0.0839
Costco Wholesale Corporation	0.75	0.61	2.7469	0.0788
Dolby Laboratories, Inc.	0.95	0.86	2.8821	0.0827
Elevance Health, Inc.	0.90	0.81	3.2331	0.0927
Gilead Sciences, Inc.	0.75	0.56	2.9843	0.0856
Heartland Express, Inc.	0.85	0.74	3.1295	0.0897
Jack Henry & Associates, Inc.	0.80	0.62	3.1114	0.0892
International Business Machines Corporatio	0.85	0.72	2.9047	0.0833
L3Harris Technologies	0.85	0.75	3.0407	0.0872
Labcorp Holdings Inc.	0.80	0.70	3.2361	0.0928
Lowe's Companies, Inc.	0.90	0.83	2.9305	0.0840
Maximus, Inc.	0.90	0.80	3.0668	0.0879
McKesson Corporation	0.75	0.57	2.9235	0.0838
Microsoft Corporation	0.90	0.79	2.8958	0.0830
Monster Beverage Corporation	0.75	0.56	2.8136	0.0807
NewMarket Corporation	0.75	0.61	2.9922	0.0858
O'Reilly Automotive, Inc.	0.75	0.60	2.7811	0.0798
Philip Morris International Inc.	0.80	0.68	2.7950	0.0802
Prestige Consumer	0.75	0.62	3.1446	0.0902
The Progressive Corporation	0.75	0.55	2.9424	0.0844
RLI Corporation	0.85	0.70	2.9794	0.0854
Rollins, Inc.	0.80	0.69	3.2666	0.0937
Sherwin-Williams Company	0.95	0.85	2.8148	0.0807
Thermo Fisher Scientific Inc.	0.90	0.80	2.9556	0.0848
UnitedHealth Group Incorporated	0.80	0.65	3.0349	0.0870
VeriSign, Inc.	0.80	0.69	2.8280	0.0811
The Wendy's Company	0.85	0.75	3.1576	0.0905
Werner Enterprises	0.80	0.68	3.0716	0.0881
Zoetis Inc.	0.95	0.85	2.9057	0.0833
Average	<u>0.82</u>	<u>0.70</u>	<u>2.9711</u>	<u>0.0852</u>
Proxy Group of Six Water Companies	<u>0.83</u>	<u>0.70</u>	<u>3.0059</u>	<u>0.0862</u>

Source of Information:

Value Line Proprietary Database, March 2025.

The York Water Company
Summary of Cost of Equity Models Applied to
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Six Water Companies

<u>Principal Methods</u>	<u>Proxy Group of Thirty-Six Non-Price Regulated Companies</u>
Discounted Cash Flow Model (DCF) (1)	11.53 %
Risk Premium Model (RPM) (2)	11.68
Capital Asset Pricing Model (CAPM) (3)	11.23
Mean	11.48 %
Median	11.53 %
Average of Mean and Median	11.51 %

Notes:

- (1) From page 2 of this Schedule.
- (2) From page 3 of this Schedule.
- (3) From page 6 of this Schedule.

The York Water Company
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Water Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Thirty-Six Non-Price Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Zack's Five Year Projected Growth Rate in EPS	S&P Capital IQ Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS (1)	Adjusted Dividend Yield	Indicated Common Equity Cost Rate (2)
Abbott Laboratories	1.85 %	4.50 %	10.40 %	10.09 %	8.33 %	1.93 %	10.26 %
Allstate Corporation	2.05	29.00	9.80	NA	19.40	2.25	21.65
Assurant, Inc.	1.53	9.50	NA	NA	9.50	1.60	11.10
AutoZone Inc.	-	11.50	11.80	12.19	11.83	-	NA
Bristol-Myers Squibb Company	4.25	2.50	4.00	18.98	8.49	4.43	12.92
Brown-Forman Corporation 'B'	2.69	14.00	3.20	0.24	5.81	2.77	8.58
Casella Waste System	-	6.50	25.80	NA	16.15	-	NA
Constellation Brands, Inc.	2.23	7.50	8.20	6.01	7.24	2.31	9.55
Costco Wholesale Corporation	0.48	11.50	9.30	9.07	9.96	0.50	10.46
Dolby Laboratories, Inc.	1.62	9.50	NA	NA	9.50	1.70	11.20
Elevance Health, Inc.	1.70	9.50	10.40	10.13	10.01	1.79	11.80
Gilead Sciences, Inc.	3.05	6.50	19.50	28.47	18.16	3.33	21.49
Heartland Express, Inc.	0.76	28.50	NA	NA	28.50	0.87	29.37 (3)
Jack Henry & Associates, Inc.	1.33	6.50	8.60	8.63	7.91	1.38	9.29
International Business Machines Corporation	2.73	3.00	4.20	7.49	4.90	2.80	7.70
L3Harris Technologies	2.29	9.00	7.30	7.33	7.88	2.38	10.26
Labcorp Holdings Inc.	1.19	1.50	9.10	9.44	6.68	1.23	7.91
Lowe's Companies, Inc.	1.87	6.50	8.50	4.35	6.45	1.93	8.38
Maximus, Inc.	1.69	10.50	NA	12.50	11.50	1.79	13.29
McKesson Corporation	0.46	10.00	14.30	14.04	12.78	0.49	13.27
Microsoft Corporation	0.82	14.50	14.40	12.00	13.63	0.88	14.51
Monster Beverage Corporation	-	11.50	14.20	11.16	12.29	-	NA
NewMarket Corporation	2.08	7.00	NA	NA	7.00	2.15	9.15
O'Reilly Automotive, Inc.	-	10.50	12.80	12.83	12.04	-	NA
Philip Morris International Inc.	3.80	5.00	8.20	9.87	7.69	3.95	11.64
Prestige Consumer	-	6.00	7.00	7.67	6.89	-	NA
The Progressive Corporation	0.15	23.50	10.90	14.79	16.40	0.16	16.56
RLI Corporation	0.79	13.50	NA	NA	13.50	0.84	14.34
Rollins, Inc.	1.31	9.50	NA	NA	9.50	1.37	10.87
Sherwin-Williams Company	0.90	11.00	9.80	9.67	10.16	0.95	11.11
Thermo Fisher Scientific Inc.	0.32	6.00	8.80	8.41	7.74	0.33	8.07
UnitedHealth Group Incorporated	1.64	11.00	12.40	11.03	11.48	1.73	13.21
VeriSign, Inc.	-	12.00	NA	NA	12.00	-	NA
The Wendy's Company	6.66	11.00	7.70	7.55	8.75	6.95	15.70
Werner Enterprises	1.67	NA	NA	NMF	NA	NA	NA
Zoetis Inc.	1.20	7.50	9.30	9.32	8.71	1.25	9.96

NA= Not Available

NMF=Not Meaningful Figure

Mean 11.94 %

Median 11.11 %

Average of Mean and Median 11.53 %

Notes:

- (1) Average of columns 2 through 4 excluding negative growth rates and extreme positive values.
- (2) 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 4/01/2025. 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.zacks.com, and S&P Capital IQ (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.
- (3) Results were excluded from the final average and median as they were more than two standard deviations from the proxy group's mean.

Source of Information:

Value Line Investment Survey
www.zacks.com, Downloaded on 4/1/2025
S&P Capital IQ

The York Water Company
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 Thirty-Six Non-Price Regulated Companies</u>
1.	Prospective Yield on Baa2 Rated Corporate Bonds (1)	6.03 %
2.	Adjustment to Reflect Bond rating Difference of Non-Price Regulated Companies (2)	<u>(0.18)</u>
3.	Adjusted Bond Yield	5.85
4.	Equity Risk Premium (3)	<u>5.83</u>
5.	Risk Premium Derived Common Equity Cost Rate	<u><u>11.68 %</u></u>

Notes: (1) Average forecast of Baa corporate bonds based upon the consensus of nearly 50 economists reported in Blue Chip Financial Forecasts dated November 27, 2024 and April 1, 2025 (see pages 7 and 8 of Schedule DWD-4). The estimates are detailed below.

Second Quarter 2025	6.00 %
Third Quarter 2025	6.00
Fourth Quarter 2025	6.00
First Quarter 2026	6.10
Second Quarter 2026	6.10
Third Quarter 2026	6.10
2026-2030	6.00
2031-2035	<u>5.90</u>
Average	<u><u>6.03 %</u></u>

(2) The average yield spread of Baa2 rated corporate bonds over A2 corporate bonds for the three months ending March 2025. To reflect the A3 average rating of the Non-Price Regulated Proxy Group comparable in total risk to the Proxy Group, the yield on Baa corporate bonds must be adjusted by 2/3 of the spread between A2 and Baa2 corporate bond yields as shown below:

	A2 Corp. Bond Yield	Baa2 Corp. Bond Yield	Spread
Mar-25	5.65 %	5.93 %	0.28 %
Feb-25	5.66	5.92	0.26
Jan-25	5.80	6.08	<u>0.28</u>
	Average yield spread		<u>0.27</u>
	2/3 of spread		<u><u>0.18</u></u>

(3) From page 5 of this Schedule.

The York Water Company
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Thirty-Six Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Six Water Companies

Proxy Group of Thirty-Six Non-Price Regulated Companies	Moody's Long-Term Issuer Rating April 2025		Standard & Poor's Long-Term Issuer Rating April 2025	
	Long-Term Issuer Rating	Numerical Weighting (1)	Long-Term Issuer Rating	Numerical Weighting (1)
Abbott Laboratories	Aa3	4.0	AA-	4.0
Allstate Corporation	A3	7.0	BBB+	8.0
Assurant, Inc.	Baa2	9.0	BBB	9.0
AutoZone Inc.	Baa1	8.0	BBB	9.0
Bristol-Myers Squibb Company	A2	6.0	A	6.0
Brown-Forman Corporation 'B'	A1	5.0	A-	7.0
Casella Waste System	NA	--	BB	12.0
Constellation Brands, Inc.	Baa3	10.0	BBB	9.0
Costco Wholesale Corporation	Aa3	4.0	AA	3.0
Dolby Laboratories, Inc.	NA	--	NA	--
Elevance Health, Inc.	Baa2	9.0	A	6.0
Gilead Sciences, Inc.	A3	7.0	BBB+	8.0
Heartland Express, Inc.	NA	--	NA	--
Jack Henry & Associates, Inc.	NA	--	NA	--
International Business Machines Corporation	A3	7.0	A-	7.0
L3Harris Technologies	Baa2	9.0	BBB	9.0
Labcorp Holdings Inc.	NA	--	BBB	9.0
Lowe's Companies, Inc.	Baa1	8.0	BBB+	8.0
Maximus, Inc.	NA	--	BB+	11.0
McKesson Corporation	A3	7.0	BBB+	8.0
Microsoft Corporation	Aaa	1.0	AAA	1.0
Monster Beverage Corporation	NA	--	NA	--
NewMarket Corporation	Baa2	9.0	BBB+	8.0
O'Reilly Automotive, Inc.	Baa1	8.0	BBB	9.0
Philip Morris International Inc.	A2	6.0	A-	7.0
Prestige Consumer	NA	--	BB	12.0
The Progressive Corporation	A2	6.0	A	6.0
RLI Corporation	WR	--	BBB	9.0
Rollins, Inc.	NA	--	BBB	9.0
Sherwin-Williams Company	Baa2	9.0	BBB	9.0
Thermo Fisher Scientific Inc.	A3	7.0	A-	7.0
UnitedHealth Group Incorporated	A2	6.0	A+	5.0
VeriSign, Inc.	Baa3	10.0	BBB	9.0
The Wendy's Company	NA	--	B+	14.0
Werner Enterprises	NA	--	NA	--
Zoetis Inc.	A3	7.0	BBB	9.0
Average	A3	7.0	BBB+	8.0

Notes:

(1) From page 4 of Schedule DWD-4.

Source of Information:

Bloomberg Professional Services

The York Water Company
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
Proxy Group of Thirty-Six Non-Price Regulated Companies of Comparable risk to the
Proxy Group of Six Water Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Proxy Group of Thirty-Six Non-Price Regulated Companies</u>
1.	Kroll Equity Risk Premium (1)	6.10 %
2.	Regression on Kroll Risk Premium Data (2)	6.97
3.	Kroll Equity Risk Premium based on PRPM (3)	7.15
4.	Equity Risk Premium Based on Value Line Summary and Index (4)	7.19
5.	Equity Risk Premium Based on Bloomberg, Value Line, and S&P Global Market Intelligence S&P 500 Companies (5)	<u>9.97</u>
6.	Conclusion of Equity Risk Premium	7.48 %
7.	Adjusted Beta (6)	<u>0.78</u>
8.	Forecasted Equity Risk Premium	<u><u>5.83 %</u></u>

Notes:

- (1) From note 1 of page 6 of Schedule DWD-4.
- (2) From note 2 of page 6 of Schedule DWD-4.
- (3) From note 3 of page 6 of Schedule DWD-4.
- (4) From note 4 of page 6 of Schedule DWD-4.
- (5) From note 5 of page 6 of Schedule DWD-4.
- (6) Average of mean and median beta from page 6 of this Schedule.

Sources of Information:

Kroll Cost of Capital Navigator
Value Line Summary and Index
Blue Chip Financial Forecasts, November 27, 2024 and April 1, 2025
Bloomberg Professional Services

The York Water Company
Traditional CAPM and ECAPM Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Six Water Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Thirty-Six 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)
Abbott Laboratories	0.85	0.57	0.71	8.41 %	4.46 %	10.43 %	11.04 %	10.74 %
Allstate Corporation	1.00	0.52	0.76	8.41	4.46	10.85	11.36	11.10
Assurant, Inc.	0.90	0.68	0.79	8.41	4.46	11.10	11.55	11.32
AutoZone Inc.	0.90	0.61	0.76	8.41	4.46	10.85	11.36	11.10
Bristol-Myers Squibb Company	0.75	0.40	0.58	8.41	4.46	9.34	10.22	9.78
Brown-Forman Corporation 'B'	0.90	0.66	0.78	8.41	4.46	11.02	11.48	11.25
Casella Waste System	0.90	0.75	0.83	8.41	4.46	11.44	11.80	11.62
Constellation Brands, Inc.	1.10	0.59	0.85	8.41	4.46	11.61	11.92	11.77
Costco Wholesale Corporation	0.65	0.92	0.78	8.41	4.46	11.02	11.48	11.25
Dolby Laboratories, Inc.	0.95	0.84	0.89	8.41	4.46	11.94	12.18	12.06
Elevance Health, Inc.	1.05	0.45	0.75	8.41	4.46	10.77	11.29	11.03
Gilead Sciences, Inc.	0.75	0.64	0.69	8.41	4.46	10.26	10.91	10.59
Heartland Express, Inc.	0.75	1.09	0.92	8.41	4.46	12.20	12.37	12.28
Jack Henry & Associates, Inc.	0.85	0.61	0.73	8.41	4.46	10.60	11.17	10.88
International Business Machines Corporation	0.95	0.74	0.85	8.41	4.46	11.61	11.92	11.77
L3Harris Technologies	0.90	0.79	0.84	8.41	4.46	11.52	11.86	11.69
Labcorp Holdings Inc.	1.05	0.62	0.84	8.41	4.46	11.52	11.86	11.69
Lowe's Companies, Inc.	1.00	1.07	1.03	8.41	4.46	13.12	13.06	13.09 (4)
Maximus, Inc.	0.80	0.81	0.81	8.41	4.46	11.27	11.67	11.47
McKesson Corporation	0.80	0.60	0.70	8.41	4.46	10.35	10.98	10.66
Microsoft Corporation	0.90	1.03	0.96	8.41	4.46	12.53	12.62	12.58
Monster Beverage Corporation	0.80	0.64	0.72	8.41	4.46	10.52	11.10	10.81
NewMarket Corporation	0.80	0.69	0.75	8.41	4.46	10.77	11.29	11.03
O'Reilly Automotive, Inc.	0.90	0.55	0.73	8.41	4.46	10.60	11.17	10.88
Philip Morris International Inc.	0.90	0.43	0.66	8.41	4.46	10.01	10.73	10.37
Prestige Consumer	0.80	0.64	0.72	8.41	4.46	10.52	11.10	10.81
The Progressive Corporation	0.75	0.40	0.57	8.41	4.46	9.25	10.16	9.71 (4)
RLI Corporation	0.80	0.54	0.67	8.41	4.46	10.09	10.79	10.44
Rollins, Inc.	0.80	0.75	0.78	8.41	4.46	11.02	11.48	11.25
Sherwin-Williams Company	0.95	1.10	1.03	8.41	4.46	13.12	13.06	13.09 (4)
Thermo Fisher Scientific Inc.	0.85	0.81	0.83	8.41	4.46	11.44	11.80	11.62
UnitedHealth Group Incorporated	0.95	0.30	0.62	8.41	4.46	9.67	10.47	10.07
VeriSign, Inc.	0.90	0.57	0.74	8.41	4.46	10.68	11.23	10.96
The Wendy's Company	1.15	0.42	0.78	8.41	4.46	11.02	11.48	11.25
Werner Enterprises	0.75	0.95	0.85	8.41	4.46	11.61	11.92	11.77
Zoetis Inc.	0.95	0.81	<u>0.88</u>	8.41	4.46	<u>11.86</u>	<u>12.11</u>	<u>11.99</u>
Mean			<u>0.78</u>			<u>11.04 %</u>	<u>11.50 %</u>	<u>11.21 %</u>
Median			<u>0.78</u>			<u>11.02 %</u>	<u>11.48 %</u>	<u>11.25 %</u>
Average of Mean and Median			<u>0.78</u>			<u>11.03 %</u>	<u>11.49 %</u>	<u>11.23 %</u>

Notes:

- (1) From note 1 of page 2 of Schedule DWD-5.
- (2) From note 2 of page 2 of Schedule DWD-5.
- (3) Average of CAPM and ECAPM cost rates.
- (4) Results were excluded from the final average and median as they were more than two standard deviations from the proxy group's mean.

The York Water Company
Derivation of Investment Risk Adjustment Based upon
Kroll Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.	[1] Market Capitalization on April 1, 2025 (millions)	[2] Applicable Decile of the NYSE/AMEX/ NASDAQ (3)	[3] Applicable Size Premium (4)	[4] Spread from Applicable Size Premium (5)
1.	The York Water Company \$ 500,753	9	1.73%	
2.	Proxy Group of Six Water Companies \$ 2,951,447 (2)	6	1.00%	0.73%
	American States Water Company \$ 3,005,211			
	American Water Works Company, Inc. \$ 28,666,609			
	California Water Service Group \$ 2,897,682			
	Essential Utilities Inc. \$ 10,896,984			
	Middlesex Water Company \$ 1,149,627			
	SIW Group \$ 1,823,978			

	[A] Decile	[B] Market Capitalization of Smallest Company (millions)	[C] Market Capitalization of Largest Company (millions)	[D] Size Premium (Return in Excess of CAPM)*
Largest	1	\$ 47,156,530	\$ 3,522,211,140	-0.01%
	2	20,191,220	46,949,060	0.33%
	3	9,937,940	20,178,360	0.49%
	4	6,196,710	9,937,350	0.50%
	5	3,948,050	6,181,270	0.74%
	6	2,481,780	3,946,150	1.00%
	7	1,422,890	2,464,500	1.19%
	8	731,190	1,417,450	0.88%
	9	304,620	729,920	1.73%
Smallest	10	1,110	304,480	4.47%

*From 2025 Kroll Cost of Capital Navigator

Notes:

- (1) Source: Bloomberg Professional Services.
- (2) Median of the Market Capitalization of the Proxy Group of Six Water Companies on April 1, 2025.
- (3) Gleaned from Columns [B] and [C] on the bottom of this page. The appropriate decile (Column [A]) corresponds to the market capitalization of the proxy group, which is found in Column [1].
- (4) Corresponding risk premium to the decile is provided in Column [D] on the bottom of this page.
- (5) Line No. 1 Column [3] - Line No. 2 Column [3]. For example, the 0.73% in Column [4], Line No. 2 is derived as follows 0.73% = 1.73% - 1.00%.

The York Water Company
Derivation of the Flotation Cost Adjustment to the Cost of Common Equity

Equity Issuances

	[Column 1]	[Column 2]	[Column 3]	[Column 4]	[Column 5]	[Column 6]	[Column 7]	[Column 8]
Date of Offering	Transaction (1)	Average Offering Price per Share (1)	Total Offering Expense per Share (1)	Net Proceeds per Share (2)	Gross Equity Issue before Costs (3)	Total Net Proceeds (4)	Total Flotation Costs (5)	Flotation Cost Percentage (6)
4/5/2022	Equity Offering	\$ 41.00	\$ 1.640	\$ 39.3600	\$ 45,999,540	\$ 44,159,558	\$ 1,839,982	4.00%
9/29/2009	Equity Offering	\$ 14.00	\$ 0.560	\$ 13.4400	\$ 15,295,000	\$ 14,683,200	\$ 611,800	4.00%
12/6/2006	Equity Offering	\$ 17.90	\$ 0.716	\$ 17.1840	\$ 13,277,325	\$ 12,746,232	\$ 531,093	4.00%
7/21/2004	Equity Offering	\$ 17.80	\$ 0.710	\$ 17.0900	\$ 8,495,050	\$ 8,156,203	\$ 338,848	3.99%
	Total Public Issuances				\$ 83,066,915	\$ 79,745,193	\$ 3,321,722	4.00%

Flotation Cost Adjustment

	[Column 9]	[Column 10]	[Column 11]	[Column 12]	[Column 13]	[Column 14]
Proxy Group of Six Water Companies	Average Dividend Yield (7)	Average Projected EPS Growth Rate (7)	Adjusted Dividend Yield (8)	Average DCF Cost Rate Unadjusted for Flotation (9)	DCF Cost Rate Adjusted for Flotation (10)	Flotation Cost Adjustment (11)
	2.79 %	7.18 %	2.89 %	10.07 %	10.19 %	0.12 %

- Notes:
- (1) From Company SEC filings
 - (2) Col. 2 - Col. 3
 - (3) Col. 1 x Col. 2
 - (4) Col. 1 x Col. 4
 - (5) Col. 1 x Col. 3
 - (6) (Col. 5 - Col. 6) / Col. 5
 - (7) From page 1 of Schedule DWD-3.
 - (8) Col. 9 * (1 + (0.5 * Col. 10))
 - (9) Col. 10 + Col. 11
 - (10) Col. 11 / (1 - Col. 8)) + Col. 10
 - (11) Col. 13 - Col. 12