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IDAHO PUBLIC
UTILITIES COMMISSION

Attorneys for the Applicant

IN THE MATTER OF THE APPLICATION
OF UNITED WATER IDAHO INC. FOR
AUTHORITY TO INCREASE ITS RATES
AND CHARGES FOR WATER SERVICE IN
THE STATE OF IDAHO

Case No. UWI-W-15-01

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

DIRECT TESTIMONY OF PAULINE M. AHERN, CRRA

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Appendix A – Professional Qualifications of Pauline M. Ahern, CRRA

1 **Introduction**

2 **Q. PLEASE STATE YOUR NAME, OCCUPATION AND BUSINESS ADDRESS.**

3 A. My name is Pauline M. Ahern. I am a Partner with Sussex Economic Advisors,
4 LLC. My business address is 161 Worcester Road, Suite 503, Framingham, MA
5 01701. My mailing address is 3000 Atrium Way, Suite 241, Mount Laurel, NJ
6 08054.

7 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL EXPERIENCE AND**
8 **EDUCATIONAL BACKGROUND.**

9 A. I have offered expert testimony on behalf of investor-owned utilities before
10 twenty-nine state regulatory commissions in the United States as well as one
11 provincial regulatory commission in Canada on rate of return issues, including
12 but not limited to common equity cost rate, fair rate of return, capital structure
13 issues, relative investment risk and credit quality issues. I am a graduate of
14 Clark University, Worcester, MA, where I received a Bachelor of Arts degree with
15 honors in Economics. I have also received a Master of Business Administration
16 with high honors and a concentration in finance from Rutgers University.

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

23 I am a member of the Society of Utility and Regulatory Financial Analysts

1 (“SURFA”) where I serve on its Board of Directors, having served two terms as
2 President, from 2006 – 2008 and 2008 – 2010. Previously, I held the position of
3 Secretary/Treasurer from 2004 – 2006. In 1992, I was awarded the professional
4 designation "Certified Rate of Return Analyst" (“CRRA”) by SURFA, which is
5 based upon education, experience and the successful completion of a
6 comprehensive written examination.

7 I am also an associate member of the National Association of Water
8 Companies, serving on its Finance/Accounting/Taxation and Rates and
9 Regulation Committees; a member of the Advisory Council of the Financial
10 Research Institute – University of Missouri – Robert J. Trulaske, Sr. College of
11 Business; a member of the American Finance and Financial Management
12 Associations; a member of Edison Electric Institute’s Cost of Capital Working
13 Group; and, a member of A.G.A.’s State Affairs Committee.

14 **Purpose**

15 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

16 A. The purpose of my direct testimony is to provide testimony on behalf of United
17 Water Idaho Inc. (“UWID” or “the Company”) relative to the appropriate overall
18 rate of return, including capital structure ratios, long-term debt cost rate and the
19 investor-required common equity cost rate which UWID should be afforded the
20 opportunity to earn on its sewer jurisdictional rate base.

21 **Q. HAVE YOU PREPARED AN EXHIBIT WHICH SUPPORTS YOUR**
22 **RECOMMENDED COMMON EQUITY COST RATE?**

23 A. Yes. They have been marked for identification as Exhibit No. 1 consisting of

Schedules (PMA-1) through (PMA-10).

Q. WHAT IS YOUR RECOMMENDED OVERALL RATE OF RETURN?

A. I recommend that the Idaho Public Utilities Commission (“the IPUC” or “the Commission”) authorize the Company the opportunity to earn an overall rate of return of 8.45% based upon the consolidated capital structure of United Waterworks, Inc. (“UWW” or “the Parent”) at December 31, 2014, which consisted of 44.70% long-term debt and 55.30% common equity, at a long-term debt cost rate of 6.03% and my recommended common equity cost rate of 10.40%. A common equity cost rate of 10.40% results in an overall rate of return of 8.45% when applied to the common equity ratio of 55.30% as will be discussed below and as derived on page 1 of Schedule (PMA-1) and summarized in Table 1 below:

Table 1

<u>Type of Capital</u>	<u>Ratios</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	44.70%	6.03%	2.70%
Common Equity	<u>55.30</u>	10.40	<u>5.75</u>
Total	<u>100.00%</u>		<u>8.45%</u>

Summary

Q. PLEASE SUMMARIZE YOUR RECOMMENDED COMMON EQUITY COST RATE.

A. My recommended common equity cost rate of 10.40% is summarized on page 2 of Schedule (PMA-1). Because UWID’s common stock is not publicly traded, a

1 market-based common equity cost rate cannot be directly observed for the
2 Company. Consequently, I have assessed the market-based common equity
3 cost rates of companies of relatively similar, but not necessarily identical risk,
4 i.e., a proxy group, for insight into a recommended common equity cost rate
5 applicable to UWID. Using companies of relatively similar risk as proxies is
6 consistent with the principle of fair rate of return established in the *Hope*¹ and
7 *Bluefield*² cases, adding reliability to the informed expert judgment necessary to
8 arrive at a recommended common equity cost rate. However, no proxy group
9 can be selected to be identical in risk to UWID. Therefore, the proxy group's
10 results must be adjusted, if necessary, to reflect the unique relative investment
11 (financial and / or business) risk of the Company.

12 My recommendation results from the application of market-based cost of
13 common equity models, the Discounted Cash Flow ("DCF") approach, the Risk
14 Premium Model ("RPM") and the Capital Asset Pricing Model ("CAPM"), to the
15 market data of the proxy group of eight water companies whose selection will be
16 discussed below. In addition, I also applied the DCF, RPM and CAPM to the
17 market data of domestic, non-price regulated companies comparable in total risk
18 to the eight water companies.

19 The results derived from each are as follows:

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

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

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Table 2

Proxy Group
of Eight
Water
Companies

Discounted Cash Flow Model	8.54%
Risk Premium Model	10.72
Capital Asset Pricing Model	9.35
Cost of Equity Models Applied to Comparable Risk, Non-Price Regulated Companies	<u>10.43%</u>
Indicated Common Equity Cost Rate	9.83%
Business Risk Adjustment	<u>0.55%</u>
Indicated Common Equity Cost Rate	10.38%
Recommended Common Equity Cost Rate	<u>10.40%</u>

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After reviewing the cost rates based upon these models, I conclude that a common equity cost rate of 9.83% is indicated before any adjustment for UWID's greater business risk relative to the proxy group of eight water companies as I discuss in more detail below. Thus, the indicated common equity cost rate based upon the eight water companies needs to be adjusted upward by 0.55% to reflect UWID's greater business risk. After adjustment, the common equity cost rate is 10.38%, which when rounded to 10.40%, is my recommended common equity cost rate, which in my opinion is reasonable, if not conservative.

31 **General Comments on Capital Market Conditions**

32 **Q. PLEASE DESCRIBE CURRENT CAPITAL MARKET CONDITIONS.**

33 A. The U.S. economy is slowly recovering from the Great Recession of 2008 –
34 2009, with the Federal Reserve Bank's ("Fed") Federal Open Market

1 Committee's ("FOMC") having tapered off its quantitative easing³ while
2 maintaining the Federal Funds ("Fed Funds") and discount rate at record lows
3 until certain economic thresholds are met and maintained for an undefined
4 period. As a result, the stock market has recovered remarkably with the Dow up
5 more than 175%, from the lows of early March 2009, notwithstanding the recent
6 volatility in the Dow.

7 In its May 15, 2015 Selection & Opinion *Value Line Investment Survey*
8 (*"Value Line"*) notes the following regarding the U.S. economy as it moves into
9 mid-2015⁴:

10 1) Second quarter 2015: Picture is mixed.

- 11 a. Jobless claims are low enough to sustain healthy job growth;
- 12 b. Car sales are up;
- 13 c. Non-manufacturing is accelerating; BUT,
- 14 d. Manufacturing are barely advancing;
- 15 e. Consumer confidence is up and down; and
- 16 f. Exports are being held back by a strong U.S. dollar.

17 2) Progress to be measured and uneven throughout rest of quarter and year.

- 18 a. Softer landing in 1st quarter suggests Gross Domestic Product
19 ("GDP") growth will struggle to reach 3% in the 2nd quarter; and
- 20 b. GDP growth should average 2.5% - 3.0% in 2nd half of 2015.

21 3) Overall a decent quarter, in spite of the challenges.

³ Purchase of mortgage backed securities.

⁴ *Value Line Investment Survey*, Selection & Opinion, May 15, 2015, 4221.

1 4) Globally, the long economic upturn here in the U.S. will gradually spread
2 globally.

3 5) "All of this has led to a volatile trading pattern on Wall Street."

4 6) Conclusion:

- 5 a. Stock market is not undervalued;
- 6 b. Interest rates near historic lows;
- 7 c. Fed in no hurry to raise interest rates; hence,
- 8 d. "Equities remain an attractive option."

9 Remember, however, that volatility is a measure of risk, and volatile trading
10 patterns on Wall Street indicate a risky stock market and higher common equity
11 costs, notwithstanding the currently, historically low interest rate environment.

12 The cost of capital, including the cost of common equity, is expectational in
13 nature. So, expected interest rates are relevant to rate of return analyses, the
14 current historical low interest rates are not. As noted by Value Line below,
15 interest rates are expected to rise. It is a matter of when, not if. On February 20,
16 2015, Value Line published its Quarterly Forecast for the U.S. Economy in its
17 Selection & Opinion. Value Line projects interest rates to rise significantly by
18 2019. Specifically, the yield on the 3-month Treasury Bills is expected to rise
19 from a recent (May 6, 2015) 0.01%⁵ to 3.5% in 2019⁶; the yield on long-term U.S.
20 Treasury securities from a recent (May 6, 2015) 2.99% to 4.5% in 2019; and, the
21 prime rate from a recent (May 6, 2015) 3.25% to 5.5% in 2019.

22 In fact, the yield on 30-year U.S. Treasury securities has already risen 64

⁵ *Value Line*, May 15, 2015, 4229.

⁶ *Value Line Investment Survey*, Selection & Opinion, February 20, 2015, 4367.

1 basis points (0.64%) during the last three months, from 2.35%⁷ on February 4,
2 2015 to the 2.99% noted above. Likewise, as shown on Schedule (PMA-6),
3 page 4, the average yield on Moody's A-rated public utility bonds has risen 16
4 basis points (0.16%) from 3.58% in January 2015 to 3.74% in March 2015, rising
5 another 17 basis points (0.17%) to 3.91%⁸ on April 30, 2015 for a total of 33
6 basis points (0.33%). As noted below, the Fed considers recent levels of interest
7 rates as below the longer-term "normal."

8 Clearly, the capital markets are reflecting both the recent historically low
9 interest rate environment engineered by the Fed plus an expectation of rising
10 interest rates. The Fed's engineering of interest rates impacts the measurement
11 of the cost of capital, specifically the investor required return on common equity.

12 **Q. HOW DOES THE FED'S ENGINEERING OF INTEREST RATES AFFECT THE**
13 **TRADITIONAL COST OF COMMON EQUITY MODELS?**

14 A. The traditional cost of common equity models, e.g., the DCF, RPM, and CAPM
15 models do not accurately or reliably capture the investors' required return under
16 current economic and capital market conditions, where interest rates are
17 artificially and historically low, being maintained there by Fed policy as stated
18 above. That such low interest rates are below the long-run "norm" is
19 corroborated by the FOMC's own statements in the press release it issued
20 following its latest meeting on April 28 - 29, 2015⁹ where the FOMC stated that
21 "The Committee anticipates that it will be appropriate to raise the target range for
22 the federal funds rate when it has seen further improvement in the labor market

⁷ *Value Line* February 20, 2015 4367.

⁸ Bloomberg Professional Services

1 and is reasonably confident that inflation will move back to its 2 percent objective
2 over the medium term”. . . . and “economic conditions may, for some time,
3 warrant keeping the target federal funds rate below levels the Committee views
4 as normal in the longer run.” Clearly, the FOMC anticipates that it will raise the
5 target range for the federal funds rates. Again, it is a matter of when, not if.

6 That the Fed will raise interest rates sooner rather than later is
7 corroborated by the Vice Chair of the Federal Reserve, Stanley Fischer who
8 stated in an interview with CNBC on April 16, 2015¹⁰:

9 We expect that the markets look ahead somewhat, so I think – I
10 hope – that they are taking into account that the Fed, at some point,
11 is likely to raise the interest rate, [markets] can’t depend on the
12 current situation continuing forever – or even probably – beyond the
13 end of this year.
14

15 These artificially low interest rates have lead some analysts to the faulty
16 conclusion that current capital costs are low and will continue to be so. These
17 analysts are mistaken. Their conclusion only holds true under the hypothesis of
18 Perfectly Competitive Capital Markets (“PCCM”) and the classical valuation
19 framework which underpins the traditional cost of common equity models.
20 PCCM are capital markets where no single trader, known as a “market-mover”,
21 has the power to change the prices of goods or services, including bond and
22 common stock securities. In other words, under the PCCM hypothesis, no single
23 trader has a significant impact on market prices. Classic valuation theory means
24 that investors trade securities rationally with prices reflecting their perceptions of

⁹ Board of Governors of the Federal Reserve System, Press Release, April 29, 2015.

¹⁰ “Fed’s Fischer: Economy in A1 was ‘poor,’ but rebound coming,”
www.cnbc.com/id/102589051

1 value. However, in my opinion, although the Fed has always had the ability to set
2 the Fed Funds and discount rates, it has recently and is currently maintaining low
3 rates to encourage continued economic and capital market recovery. Thus, the
4 Fed is acting as that market-mover, which has a significant impact on the market
5 prices of both bonds and stocks. The presence of a market-mover like the Fed
6 in the current capital markets invalidates the PCCM, which is the foundation of
7 the traditional cost of common equity models. This is corroborated by Michael K.
8 Farr of CNBC who stated¹¹:

9 It seems like an eternity since the markets have behaved
10 'normally.' For at least the past 6 – 7 years, there has been a
11 wholly different driver of supply and demand in the stock market.
12 Market peaks and valleys have been clearly and unambiguously
13 correlated to the various pronouncements of monetary support by
14 the Federal Reserve. The financial market distortions created by
15 the Fed will have a lasting impact on the economy for years to
16 come." (emphasis added)

17
18 In addition, relative to an April 15, 2015 interview with CNBC's "Squawk
19 Box", former U.S. Treasury Secretary Hank Paulson, CNBC noted¹²:

20 Former Treasury Secretary Hank Paulson said Wednesday that
21 stocks and other assets need to start to trade again on "real
22 economic." Arguing the Federal Reserve should hike interest rates
23 sooner rather than later.

24
25 * * *

26 He acknowledged the "disortational [sic] effects" of the Fed's easy
27 money policies, which have benefited investors by pumping up
28 assets, while hurting savers and Americans on fixed incomes.
29

30 In such a capital market, it is more important than ever to use projected
31 data, including interest rates, growth rates, equity risk premiums, as well as

¹¹ Michael K. Farr, President, Farr, Miller & Washington, LLC, "Goldilocks lives! Time for Fed to stand down", www.cnbc.com/id/101888234 August 5, 2015.

1 multiple cost of common equity models which will enhance the exercise of the
2 informed expert judgment required of a rate of return analyst. It is also important
3 that, due to the low interest rate environment, coupled with the Fed acting as a
4 market-mover, the traditional cost of common equity models, DCF, RPM and
5 CAPM, have a tendency, in my opinion, to understate the investor required cost
6 of common equity. Consesequently, the results of these cost of common equity
7 models, including those presented in this analysis, are particularly reasonable
8 and conservative estimates of the investor required rate of return on common
9 equity. In my opinion, the results of traditional cost of common equity models¹³
10 should be viewed with even greater scrutiny under current economic and capital
11 market conditions.

12 **General Principles**

13 **Q. WHAT GENERAL PRINCIPLES HAVE YOU CONSIDERED IN ARRIVING AT** 14 **YOUR RECOMMENDED COMMON EQUITY COST RATE OF 10.40%?**

15 A. In unregulated industries, the competition of the marketplace is the principal
16 determinant of the price of products or services. For regulated public utilities,
17 regulation must act as a substitute for marketplace competition. Assuring that
18 the utility can fulfill its obligations to the public while providing safe and reliable
19 service at all times requires a level of earnings sufficient to maintain the integrity
20 of presently invested capital as well as permitting the attraction of needed new
21 capital at a reasonable cost in competition with other firms of comparable risk.
22 This is consistent with the fair rate of return standards established by the

¹² "I worry about Fed-induced asset bubbles: Paulson," www.cnn.com/id/102588168.

¹³ Discounted Cash Flow, Risk Premium and Capital Asset Pricing Models.

1 U.S. Supreme Court in the *Hope* and *Bluefield* cases. Consequently,
2 marketplace data must be relied upon in assessing a common equity cost rate
3 appropriate for ratemaking purposes. Therefore, my recommended common
4 equity cost rate is based upon marketplace data for a proxy group of utilities as
5 similar in risk as possible to UWID, based upon selection criteria that will be
6 discussed subsequently. The use of the market data for a proxy group adds
7 reliability to the informed expert judgment used in arriving at a recommended
8 common equity cost rate. Also, the use of multiple common equity cost rate
9 models adds reliability when arriving at a recommended common equity cost
10 rate.

11 **Business Risk**

12 **Q. PLEASE DEFINE BUSINESS RISK AND EXPLAIN WHY IT IS IMPORTANT TO**
13 **THE DETERMINATION OF A FAIR RATE OF RETURN.**

14 A. Business risk is important to the determination of a fair rate of return because the
15 greater the level of risk, the greater the rate of return investors demand,
16 consistent with the basic financial principle of risk and return. Business risk is the
17 riskiness of a company's common stock without the use of debt and/or preferred
18 capital. Examples of the general business risks faced by all utilities, i.e., electric,
19 natural gas distribution and water utilities, include, but are not limited to, the
20 quality of management, the regulatory environment, customer mix and
21 concentration of customers, service territory economic growth, capital intensity
22 and size, all of which have a direct bearing on earnings. An individual utility may
23 face different levels of one or more particular risks.

1 **Q. WHAT BUSINESS RISKS DOES THE WATER UTILITY INDUSTRY IN**
2 **GENERAL FACE TODAY?**

3 A. Water is essential to life and unlike electricity or natural gas, water is the only
4 utility product which is intended for customers to ingest. Consequently, water
5 quality is of paramount importance to the health and well-being of customers and
6 is therefore subject to additional and increasingly strict health and safety
7 regulations. Beyond health and safety concerns, water utility customers also
8 have significant aesthetic concerns regarding the water delivered to them and
9 regulators pay close attention to these concerns because of the strong feelings
10 they arouse in consumers. Also, unlike many electric and natural gas utilities,
11 water utilities serve a production function in addition to the delivery functions
12 served by electric and gas utilities.

13 Water utilities obtain supply from wells, aquifers, surface water reservoirs
14 or streams and rivers. Throughout the years, well supplies and aquifers have
15 been environmentally threatened, with historically minor purification treatment
16 giving way to major well rehabilitation, extensive treatment or replacement.
17 Simultaneously, safe drinking water quality standards have tightened
18 considerably, requiring multiple treatments prior to water delivery. Supply
19 availability is also limited by drought, water source overuse, runoff, threatened
20 species and habitat protection, and other operational, political and environmental
21 factors. In addition, the United States Environmental Protection Agency ("EPA"),
22 as well as individual state and local environmental agencies, are continually
23 monitoring potential contaminants in the water supply and promulgating or

1 expanding regulations when necessary. Increasingly stringent environmental
2 standards necessitate additional capital investment in the distribution and
3 treatment of water, exacerbating the pressure on water utilities' free cash flows
4 through increased capital expenditures for infrastructure, repair and replacement.
5 In the course of procuring water supplies and treating water so that it complies
6 with Safe Drinking Water Act ("SDWA") standards, water utilities have an ever-
7 increasing responsibility to be stewards of the environment from which supplies
8 are drawn, in order to preserve and protect essential natural resources of the
9 United States.

10 Water utilities are typically vertically engaged in the entire process of
11 acquisition, supply, production, treatment and distribution of water. In contrast,
12 electric and natural gas companies, where transmission and distribution is
13 generally separate from generation, do not produce the electricity or natural gas
14 which they transmit and distribute. Hence, water utilities require significant
15 capital investment not only in distribution and transmission systems but also in
16 sources of supply (wells), production (treatment facilities), and storage.
17 Significant capital investment is necessary both to serve additional customers
18 and to replace aging systems, creating a major risk facing the water utility
19 industry.

20 *Value Line Investment Survey* ("*Value Line*")¹⁴ observes the following
21 about the water utility industry:

22 The industry continues to face the same problems that have
23 existed for years. Chronic under-investment in the infrastructure of

¹⁴ *Value Line Investment Survey*, January 16, 2015 p 1779.

1 water utilities in the past has resulted in most domestic investor
2 owned and municipal systems being antiquated and in great need
3 of repair.

4
5 To bring these water systems up to par, companies are increasing
6 their capital budgets. Since these expenditures can't be financed
7 entirely with internal funds, the difference must be made up by
8 issuing new debt and equity.

9
10 * * * *

11
12 No stock in the industry is ranked to outperform the market in the
13 year ahead. Moreover, the recent strength in the price of most of
14 these stocks has significantly reduced their long-term appeal.

15
16 * * * *

17
18 Almost no utilities generate a sufficient amount of funds internally
19 to cover the rising capital budgets. Therefore, there should be a fair
20 amount of new debt and equity issued in the years ahead. Since no
21 regulated utility currently has subpar finances, as of now, we don't
22 foresee a major deterioration in the group's balance sheet.
23 However, most will likely be in worse shape by the end of the
24 decade.

25 * * *

26
27 Most state commissions realize that huge sums are required to
28 mostly replace aging pipelines networks. Therefore, they have
29 been relatively reasonable when it comes to allowing the
30 companies to increase their customers [sic] bills to recoup their
31 investment.

32 * * *

33
34
35 Investors should understand that a harsh regulatory environment is
36 one of the major risks that any kind of utility faces.

37
38
39 As we mentioned earlier, these stocks have been on a remarkable
40 run the past few months. The sharp increases in the price of the
41 equities has removed much of the previous appeal that this group
42 offered. Indeed, almost every water stock seems to be fully valued
43 for both the long and short term.

44
45
46 In addition, because the water utility industry is more capital-intensive than

1 the electric, combination electric and gas or natural gas utilities, the investment
2 required to produce a dollar of revenue is greater. For example, as shown on
3 page 1 of Schedule (PMA-2), it took \$3.95 of net utility plant on average to
4 produce \$1.00 in operating revenues in 2014 for the water utility industry as a
5 whole. For UWID specifically, it took a much greater \$5.58 of net utility plant to
6 produce \$1.00 in operating revenues in 2014. In contrast, for the electric,
7 combination electric and gas and natural gas utility industries, on average it took
8 only \$2.65, \$2.18 and \$1.69, respectively, to produce \$1.00 in operating
9 revenues in 2014. As financing needs have increased and will continue to
10 increase, the competition for capital from traditional sources has increased and
11 will also continue to increase, making the need to maintain financial integrity and
12 the ability to attract needed new capital increasingly important.

13 **Q. WHY IS THERE AN INCREASED NEED FOR FINANCING?**

14 A. There are a number of challenges facing the water utility industry. The National
15 Association of Regulatory Commissioners (“NARUC”) has highlighted the
16 challenges facing the water utility industry stemming from its capital intensity.
17 NARUC’s Board of Directors adopted the following resolution in July 2013.¹⁵

18 **WHEREAS**, There is both a constitutional basis and judicial
19 precedent allowing investor owned public water and wastewater
20 utilities the opportunity to earn a rate of return that is reasonably
21 sufficient to assure confidence in the financial soundness of the
22 utility and its ability to provide quality service; *and*

23
24 **WHEREAS**, Through the *Resolution Supporting Consideration of*
25 *Regulatory Policies Deemed as “Best Practices”* (2005), the
26 National Association of Regulatory Utility Commissioners

¹⁵ “Resolution Supporting Consideration of Regulatory Policies Deemed as ‘Best Practices’”,
Sponsored by the Committee on Water. Adopted by the NARUC Board of Directors, July 2013.

1 (NARUC) has previously recognized the role of innovative
2 regulatory policies and mechanisms in the ability for public water
3 and wastewater utilities to address significant infrastructure
4 investment challenges facing water and wastewater system
5 operators; *and*

6
7 * * *

8
9 **WHEREAS**, Recent analysis shows that as compared to other
10 regulated utility sectors, significant and widespread discrepancies
11 continue to be observed between commission authorized returns
12 on equity and observed actual returns on equity among regulated
13 water and wastewater utilities; *and*

14
15 **WHEREAS**, The extent of such discrepancies suggests the
16 existence of challenges unique to the regulation of water and
17 wastewater utilities; *and*

18
19 * * *

20
21 **WHEREAS**, Deficient returns present a clear challenge to the
22 ability of the water and wastewater industry to attract the capital
23 necessary to address future infrastructure investment
24 requirements necessary to provide safe and reliable service, which
25 could exceed one trillion dollars over a 20-year period; *and*

26
27 **WHEREAS**, The NARUC Committee on Water recognizes the
28 critical role of the implementation and the effective use of sound
29 regulatory practice [sic] and the innovative regulatory policies
30 identified in the *Resolution Supporting Consideration of Regulatory*
31 *Policies Deemed as "Best Practices"*; *and*

32
33 * * *

34
35 **RESOLVED**, That the Board of Directors of the National
36 Association of Regulatory Utility Commissioners, convened at its
37 2013 Summer Meeting in Denver, Colorado, identifies the
38 implementation and effective use of sound regulatory practice [sic]
39 and the innovative regulatory policies identified in the *Resolution*
40 *Supporting Consideration of Regulatory Policies Deemed as "Best*
41 *Practices"* (2005) as a critical component of a water and/or
42 wastewater utility's reasonable ability to earn its authorized return;
43 *and be it further*

44
45 **RESOLVED**, That NARUC recommends that economic regulators
46 carefully consider and implement appropriate ratemaking

1 measures as needed so that water and wastewater utilities have a
2 reasonable opportunity to earn their authorized returns within their
3 jurisdictions...

4
5 UWID itself is facing significant capital expenditures as it projects net
6 capital expenditures of \$100M for 2016 – 2021, representing an increase of
7 more than 39% over 2014 net plant of \$259M.

8 **Q. PLEASE CONTINUE YOUR DISCUSSION OF BUSINESS RISKS.**

9 A. Coupled with its capital-intensive nature, the water utility industry also
10 experiences lower relative depreciation rates as well. Given that depreciation is
11 one of the principal sources of internal cash flows for all utilities, lower
12 depreciation rates mean that water utility depreciation as a source of internally-
13 generated cash is far less than for electric, combination electric and gas or
14 natural gas. Water utility assets have longer lives and, hence, longer capital
15 recovery periods. As such, water utilities face greater risk due to inflation which
16 results in a higher replacement cost per dollar of net plant than for other types of
17 utilities. As shown on page 2 of Schedule (PMA-2), water utilities experienced
18 an average depreciation rate of 3.0% for 2014, with UWID experiencing a similar
19 rate of 2.9%. In contrast, in 2014, the electric, combination electric and gas and
20 natural gas utilities experienced average depreciation rates of 3.3%, 3.4% and
21 3.7%, respectively. Low depreciation rates signify that the pressure on cash
22 flows remains significantly greater for water utilities than for other types of
23 utilities.

24 Not only is the water utility industry historically capital intensive, it is
25 expected to incur significant capital expenditure needs over the next 20 years.

1 In 2011, the EPA stated the following:¹⁶

2 The survey estimated a total national infrastructure need of \$384.2
3 billion for the 20-year period from January 2011 through December
4 2030.

5
6
7 * * *

8
9
10 The large magnitude of the national need reflects the challenges
11 confronting water systems as they deal with an infrastructure
12 network that has aged considerably since these systems were
13 constructed, in many cases, 50 to 100 years ago.

14
15 * * *

16
17 With \$247.5 billion in needs over the next 20 years, transmission
18 and distribution projects represent the largest category of need.
19 This result is consistent with the fact that transmission and
20 distribution mains account for most of the nation's water
21 infrastructure. The other categories, in descending order of need
22 are: treatment, storage, source and a miscellaneous category of
23 needs called "other".

24
25 **Q. FROM WHERE WILL THE NECESSARY CAPITAL TO FUND THIS LEVEL OF**
26 **INFRASTRUCTURE REPLACEMENT BE RAISED?**

27 A. The question of the source of this necessary capital highlights the importance of
28 capital attraction. Water utility capital expenditures as large as those projected
29 by the EPA will require significant financing. The three sources typically used for
30 financing are debt, equity (common and preferred) and cash flow. All three are
31 intricately linked to the opportunity to earn a sufficient rate of return as well as
32 the ability to achieve that return. Consistent with *Hope* and *Bluefield*, the return
33 must be sufficient enough to maintain credit quality as well as enable the

¹⁶ "Fact Sheet: "EPA's 2011 Drinking Water Infrastructure Needs Survey and Assessment," United States Environmental Protection Agency, Office of Water, April 2013.

1 attraction of necessary new capital, be it debt or equity capital. If unable to raise
2 debt or equity capital, the utility must turn to either retained earnings or free cash
3 flow [operating cash flow (funds from operations) minus capital expenditures],
4 both of which are directly linked to earning a sufficient rate of return. The level of
5 free cash flows represents the financial flexibility of a company or a company's
6 ability to meet the needs of its debt and equity holders. If either retained
7 earnings or free cash flows are inadequate, it will be nearly impossible for the
8 utility to attract the necessary new capital, on reasonable terms, to invest in
9 needed new infrastructure. It is thus clear that an insufficient rate of return can
10 be financially devastating for utilities and for their customers.

11 In view of the foregoing, the water utility industry's high degree of capital
12 intensity and low depreciation rates, coupled with the need for substantial
13 infrastructure capital spending, makes the need to maintain financial integrity
14 and the ability to attract needed new capital increasingly important in order for
15 water utilities to be able to successfully meet the challenges they face.

16 **Q. DOES UWID FACE ADDITIONAL EXTRAORDINARY BUSINESS RISK?**

17 A. Yes. UWID faces three specific unique risk factors. The first is due to the
18 uncertainty surrounding its future supply portfolio due to water rights issues. The
19 second is due to the substantial variations in weather conditions in Idaho. The
20 third is due to UWID's smaller size relative to the companies in the proxy group.

21 **Q. PLEASE DISCUSS THE UNCERTAINTY SURROUNDING UWID'S SUPPLY**
22 **PORTFOLIO.**

23 A. UWID's supply portfolio consists of both surface water and ground water rights

1 which are difficult and increasingly expensive to acquire or modify. UWID
2 continually struggles to protect these rights at all times. New risks arise
3 continually. Currently, the Company informs me, that UWID faces risk due to the
4 issue of refill. In addition water rights are annually at risk from weather
5 fluctuations. If precipitation is not sufficient during the winter, UWID may not
6 receive its full allocation on the water rights it owns. Then, UWID would need to
7 go to the State Water Bank, i.e., the spot market, to purchase enough water to
8 meet its needs for that year, unexpectedly increasing operating expense.

9 **Q. PLEASE DISCUSS THE WEATHER CONDITIONS FACED BY UWID.**

10 A. UWID's service territory experiences an arid desert climate which has a
11 significant effect upon UWID's revenues. The majority of its annual revenues
12 are realized during the summer months due to customer dependence upon
13 UWID for summer irrigation supply. Average monthly production in the summer
14 months climbs to four times that of the winter months. In addition, because
15 UWID's service territory receives only approximately 11 – 12 inches of annual
16 precipitation, UWID's annual revenues are particularly sensitive to unusually cool
17 or wet weather in the summer. As new customers draw less water, conservation
18 efforts become increasingly successful and high flow fixtures in older homes are
19 replaced with low flow fixtures. Even without summer weather fluctuations,
20 average winter consumption is down when compared with history and UWID
21 expects that it will continue to decline. Nevertheless, UWID must continue to
22 manage its water rights and build new rate base to meet its increasing number of
23 customers and anticipated summer loads, furthering pressuring revenues and

1 cash flows.

2 **Q. DOES A COMPANY'S SIZE HAVE A BEARING ON BUSINESS RISK?**

3 A. Yes. Lack of sufficient company size is a significant element of business risk for
4 which investors expect to be compensated through higher returns on their
5 investment. Smaller companies are simply less able to cope with significant
6 events that affect sales, revenues and earnings. For example, smaller
7 companies face more risk exposure to business cycles and economic conditions,
8 both nationally and locally. Additionally, the loss of revenues from a few larger
9 customers would have a greater effect on a small company than on a much
10 bigger company with a larger, more diverse, customer base.

11 Further evidence of the risk effects of size includes the fact that investors
12 demand higher returns to compensate for the lack of marketability and liquidity of
13 the securities of smaller firms. Moreover, it is a basic financial principle that it is
14 the use of funds invested and not the source of those funds that gives rise to the
15 risk of any investment.¹⁷ Consistent with the financial principle of risk and return
16 discussed above, such increased risk due to small size must be taken into
17 account in the allowed rate of return on common equity.

18 **Q. PLEASE DISCUSS HOW UWID'S SIZE INCREASES ITS BUSINESS RISK**
19 **RELATIVE TO THE PROXY GROUP.**

20 A. UWID is smaller than the average company in the proxy group of eight water
21 companies based upon estimated market capitalization, providing water and
22 wastewater service to approximately 88,000 customers in and around Boise,

¹⁷ Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance (McGraw-Hill Book

1 including Ada and Canyon counties. I will discuss this in greater detail below.
2 For now, as shown on Schedule (PMA-10), page 1, UWID's estimated market
3 capitalization of \$201.415 million is lower than the average market capitalization
4 of the proxy water group, \$2.349 billion at March 27, 2015. Consequently, UWID
5 has greater relative business risk because, all else being equal, size has a
6 bearing on risk.

7 Since investors demand an increased return in compensation for assuming
8 greater risk, UWID's greater relative business risk must be reflected in the cost of
9 common equity derived from the market data of the less business risky proxy
10 companies in the proxy group.

11 **Financial Risk**

12 **Q. PLEASE DEFINE FINANCIAL RISK AND EXPLAIN WHY IT IS IMPORTANT**
13 **TO THE DETERMINATION OF A FAIR RATE OF RETURN.**

14 A. Financial risk is the additional risk created by the introduction of senior capital,
15 i.e., debt and preferred stock, into the capital structure. The higher the
16 proportion of senior capital in the capital structure, the higher the financial risk
17 which must be factored into the common equity cost rate, consistent with the
18 previously mentioned basic financial principle of risk and return, i.e., investors
19 demand a higher common equity return as compensation for bearing higher
20 investment risk.

21 **Q. CAN THE COMBINED BUSINESS RISKS, I.E., INVESTMENT RISK OF AN**
22 **ENTERPRISE, BE PROXIED BY BOND AND CREDIT RATINGS?**

Company, 1996) 204-205, 229.

1 A. Yes, similar bond/issuer credit (bond/credit) ratings reflect and are representative
2 of similar combined business and financial risks, i.e., total risk faced by bond
3 investors. Although specific business or financial risks may differ between
4 companies, the same bond/credit rating indicates that the combined risks are
5 similar, albeit not necessarily equal, as the purpose of the bond/credit rating
6 process is to assess credit quality or credit risk and not common equity risk.
7 Risk distinctions within Standard & Poor's ("S&P") bond/issuer rating categories
8 are recognized by a plus or minus, i.e., within the A category, an S&P rating can
9 be at A+, A, or A-. Similarly, risk distinctions for Moody's ratings are
10 distinguished by numerical rating gradations, i.e., within the A category, a
11 Moody's rating can be A1, A2 and A3. As shown on Schedule (PMA-6), page 4,
12 the average S&P long-term issuer rating of the eight water companies is A and
13 the average Moody's long-term issuer rating is A2/A3.

14 **Proxy Group**

15 **Q. PLEASE EXPLAIN HOW YOU CHOSE THE PROXY GROUP OF EIGHT**
16 **WATER COMPANIES.**

17 A. I chose the proxy group by selecting those companies which meet the following
18 criteria: 1) they are included in the *Value Line's* standard edition (January 16,
19 2015; 2) they have 70% or greater of 2014 total operating income derived from
20 and 70% or greater of 2014 total assets devoted to regulated water operations;
21 3) at the time of the preparation of this testimony, they had not publicly
22 announced that they were involved in any major merger or acquisition activity,
23 i.e., one publicly-traded utility merging with or acquiring another; 4) they have not

1 cut or omitted their common dividends during the five years ending 2014 or
2 through the time of the preparation of this testimony; 5) they have a *Value Line*
3 adjusted beta; and 6) they have *Value Line*, Reuters, Zacks or Yahoo! Finance,
4 consensus five-year earnings per share (“EPS”) growth rate projections. The
5 following eight companies met these criteria: American States Water Co.,
6 American Water Works Co., Inc., Aqua America, Inc., California Water Service
7 Corp., Connecticut Water Service, Inc., Middlesex Water Co., SJW Corp. and
8 York Water Co.

9 **Q. HAVE YOU REVIEWED FINANCIAL DATA FOR THE PROXY GROUP?**

10 A. Yes. Page 1 of Schedule (PMA-3) contains comparative capitalization and
11 financial statistics for the eight proxy group water companies for the years 2010-
12 2014.

13 As shown on page 1, during the five-year period ending 2014, the
14 historically achieved average earnings rate on book common equity for the group
15 averaged 10.03%. The average common equity ratio based upon permanent
16 capital (excluding short-term debt) was 51.24%, and the average dividend payout
17 ratio was 60.38%.

18 Total debt outstanding as a percent of EBITDA for the years 2010-2014
19 ranged between 3.65 and 4.55 times, averaging 4.01 times, while funds from
20 operations relative to total debt range between 17.60% and 25.83%, averaging
21 21.31%.

1 **Common Equity Cost Rate Models**

2 **Q. ARE THE COST OF COMMON EQUITY MODELS YOU USE MARKET-BASED**
3 **MODELS?**

4 A. Yes. It is important to use market-based models because the cost of common
5 equity is a function of investors' perception of risk, which is embodied in the
6 market prices they pay. The DCF model is market-based in that market prices
7 are utilized in developing the dividend yield component of the model. The RPM
8 is market-based in that the bond/issuer ratings and expected bond yields used in
9 the application of the RPM reflect the market's assessment of bond/credit risk.
10 Also, market prices are used in the development of the returns and equity risk
11 premiums used in the Predictive Risk Premium Model ("PRPM"). In addition, the
12 use of betas to determine the equity risk premium also reflects the market's
13 assessment of market/systematic risk as betas are derived from regression
14 analyses of market prices. The CAPM is market-based for many of the same
15 reasons that the RPM is market-based i.e., the use of expected bond (U.S.
16 Treasury bond) yields and betas.

17 **Discounted Cash Flow Model ("DCF")**

18 **Q. WHAT IS THE THEORETICAL BASIS OF THE DCF MODEL?**

19 A. The theoretical basis of the DCF model is that the present value of an expected
20 future stream of net cash flows during the investment holding period can be
21 determined by discounting those cash flows at the cost of capital, or the
22 investors' capitalization rate. DCF theory indicates that an investor buys a stock
23 for an expected total return rate, which is derived from cash flows received in the

1 form of dividends plus appreciation in market price (the expected growth rate).
2 Mathematically, the dividend yield on market price plus a growth rate equals the
3 capitalization rate, i.e., the total common equity return rate expected by
4 investors.

5 **Q. WHICH VERSION OF THE DCF MODEL DO YOU USE?**

6 A. I utilize the single-stage constant growth DCF model because, in my experience,
7 it is the most widely utilized version of the DCF in public utility rate regulation. In
8 my opinion, it is widely utilized because utilities are generally in the mature stage
9 of their lifecycles and not transitioning from one growth stage to another.

10 **Q. PLEASE DESCRIBE THE DIVIDEND YIELD YOU USED IN YOUR**
11 **APPLICATION OF THE DCF MODEL.**

12 A. The unadjusted dividend yields are based upon a recent (March 27, 2015)
13 indicated dividend divided by the average of closing market prices for the 60
14 days ending March 27, 2015 as shown in Column [1] on page 1 of Schedule
15 (PMA-4).

16 **Q. PLEASE EXPLAIN THE ADJUSTED DIVIDEND YIELD SHOWN ON PAGE 1**
17 **OF SCHEDULE (PMA-4), COLUMN [7].**

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

21 DCF theory calls for the use of the full growth rate, or D_1 , in calculating the
22 dividend yield component of the model. However, since the various companies
23 in the proxy group increase their quarterly dividend at various times during the

1 year, a reasonable assumption is to reflect one-half the annual dividend growth
2 rate in the dividend yield component, or $D_{1/2}$. This is a conservative approach,
3 which does not overstate the dividend yield that should be representative of the
4 next twelve-month period. Therefore, the actual average dividend yields in
5 Column [1] on page 1 of Schedule (PMA-4) have been adjusted upward to reflect
6 one-half the average projected growth rate shown in Column [6].

7 **Q. PLEASE EXPLAIN THE BASIS OF THE GROWTH RATES OF THE PROXY**
8 **GROUP THAT YOU USE IN YOUR APPLICATION OF THE DCF MODEL.**

9 A. Schedule (PMA-5) shows that on average approximately 43% of the common
10 shares of the eight water companies are held by individuals as opposed to
11 institutional investors. Individual investors, who tend to have more limited
12 resources than institutional investors, are likely to place great significance on the
13 opinions expressed by financial information services, such as *Value Line*,
14 Reuters, Zacks and Yahoo! Finance, which are easily accessible and/or available
15 on the Internet and through public libraries. Individual, as well as institutional,
16 investors recognize that security analysts have significant insight into the
17 dynamics of the industries and individual companies they analyze, as well as an
18 entity's historical and future abilities to effectively manage the effects of changing
19 laws and regulations and ever changing economic and market conditions.

20 Security analysts' earnings expectations have a significant, but not sole,
21 influence on market prices and are therefore reasonable indicators of investor
22 expectations.¹⁸ As noted by Morin¹⁹:

¹⁸ Roger A. Morin, New Regulatory Finance (Public Utility Reports, Inc., 2006) 298-303.

1 Because of the dominance of institutional investors and their
2 influence on individual investors, analysts' forecasts of long-run
3 growth rates provide a sound basis for estimating required returns.
4 Financial analysts exert a strong influence on the expectations of
5 many investors who do not possess the resources to make their
6 own forecasts, that is, they are a cause of g.
7

8 Thus, the use of earnings growth rates in a DCF analysis provides a better
9 matching between investors' market price appreciation expectations and the
10 growth rate component of the DCF than other proxies for growth, e.g., historical
11 EPS or dividend per share ("DPS") growth rates.

12 **Q. PLEASE SUMMARIZE YOUR DCF MODEL RESULTS.**

13 A. As shown on page 1 of Schedule (PMA-4), the average result of the single-stage
14 DCF model is 8.72%, while the median result is 8.36%. I have averaged these
15 two results in arriving at a conclusion of a DCF-indicated common equity cost
16 rate of 8.54% for the proxy group. By doing so, I have not only considered the
17 DCF results for each company, but have not given undue weight to outliers on
18 either the high or the low side.

19 **The Risk Premium Model ("RPM")**

20 **Q. PLEASE DESCRIBE THE THEORETICAL BASIS OF THE RPM.**

21 A. The RPM is based upon the basic financial principle of risk and return, namely,
22 that investors require greater returns for bearing greater risk. The RPM
23 recognizes that common equity capital has greater investment risk than debt
24 capital, as common equity shareholders are last in line in any claim on an entity's
25 assets and earnings, with debt holders being first in line. Therefore, investors

¹⁹ Morin 298.

1 require higher returns from investment in common stocks than from investment
2 in bonds to compensate them for bearing the additional risk.

3 While the investor required common equity return cannot be directly
4 determined or observed, it is possible to directly observe bond returns and
5 yields. According to RPM theory, one can assess a common equity risk premium
6 over bonds, either historically or prospectively, and then use that premium to
7 derive a cost rate of common equity. In summary, according to RPM theory, the
8 cost of common equity equals the expected cost rate for long-term debt capital
9 plus a risk premium over that cost rate to compensate common shareholders for
10 the added risk of being unsecured and last-in-line for any claim on a
11 corporation's assets and earnings.

12 **Q. PLEASE EXPLAIN HOW YOU DERIVED YOUR INDICATED COST OF**
13 **COMMON EQUITY BASED UPON THE RPM.**

14 A. I relied upon the results of the application of two risk premium methods. The first
15 method is the Predictive Risk Premium Model (PRPM), while the second method
16 is a risk premium model using an adjusted total market approach.

17 **Q. PLEASE EXPLAIN THE PRPM.**

18 A. The PRPM, published in the *Journal of Regulatory Economics (JRE)*²⁰ and
19 *The Electricity Journal (TEJ)*,²¹ was developed from the work of Robert F. Engle
20 who shared the Nobel Prize in Economics in 2003 “for methods of analyzing

²⁰ “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.

²¹ “Comparative Evaluation of the Predictive Risk Premium Model™, the Discounted Cash Flow Model and the Capital Asset Pricing Model”, Pauline M. Ahern, Richard A. Michelfelder, Ph.D., Rutgers University, Dylan W. D’Ascendis, and Frank J. Hanley, *The Electricity Journal* (May,

1 economic time series with time-varying volatility (“ARCH”)²² with “ARCH”
2 standing for autoregressive conditional heteroskedasticity. In other words, the
3 volatility of stock returns and equity risk premiums changes over time and is
4 related from one period to the next. Engle discovered that the volatility in market
5 prices, returns, and equity risk premiums also clusters over time, making them
6 highly predictable and available to predict future levels of risk and risk premiums.
7 In other words, the predicted equity risk premium is generated by the prediction
8 of volatility (risk). The PRPM estimates the risk / return relationship directly by
9 analyzing the actual results of investor behavior rather than using subjective
10 judgment as to the inputs required for the application of other cost of common
11 equity models. Thus, the PRPM is not based upon an estimate of investor
12 behavior, but rather upon the evaluation of the actual results of that behavior,
13 i.e., the variance of historical equity risk premiums.

14 The inputs to the model are the historical returns on the common shares
15 of each utility in the proxy group minus the historical monthly yield on long-term
16 U.S. Treasury securities through March 2015. Using a generalized form of
17 ARCH, known as GARCH, each water utility’s projected equity risk premium was
18 determined using Eviews[®] statistical software. The forecasted 30-year U.S.
19 Treasury Bond (Note) yield of 3.68% is based upon the consensus forecast for
20 the six quarters ending with the third quarter 2016, derived from the April 1, 2015
21 Blue Chip Financial Forecasts (Blue Chip), was averaged with the long-range

2013).

²² www.nobelprize.org

1 forecasts for 2016-2020 and 2021-2025 from the December 1, 2014 *Blue Chip*
2 (shown on pages 9 and 10 of Schedule (PMA- 6) as discussed below. The risk-
3 free rate of 3.68% was then added to each company's PRPM-derived equity risk
4 premium to arrive at a PRPM-derived cost of common equity as shown on page
5 2 of Schedule (PMA-6) which presents the average and median results for each
6 proxy company. As shown on page 2, the average PRPM indicated common
7 equity cost rate is 12.08%, while the median is 11.30% for the eight water
8 companies. Consistent with my use of the average of the average and median
9 DCF results, I rely upon the average of the average and median PRPM results of
10 11.69% ($11.69\% = (12.08\% + 11.30\%)/2$) as my conclusion of PRPM cost rate.

11 **Q. PLEASE EXPLAIN THE ADJUSTED TOTAL MARKET APPROACH RPM.**

12 A. The adjusted total market approach RPM adds a prospective public utility bond
13 yield to an equity risk premium which is derived from a beta-adjusted total market
14 equity risk premium and an equity risk premium based upon the S&P Utilities
15 Index.

16 **Q. PLEASE EXPLAIN THE BASIS OF THE ADJUSTED PROSPECTIVE BOND**
17 **YIELD OF 4.87% APPLICABLE TO THE EIGHT WATER COMPANIES SHOWN**
18 **ON PAGE 3 OF SCHEDULE (PMA-6).**

19 A. The first step in the adjusted total market approach RPM analysis is to determine
20 the expected bond yield. Because both ratemaking and the cost of capital,
21 including common equity cost rate, are prospective in nature, a prospective yield
22 on long-term debt similarly rated to the proxy group is essential. Hence, I rely on
23 a consensus forecast of about 50 economists of the expected yield on Aaa rated

1 corporate bonds for the six calendar quarters ending with the third calendar
2 quarter of 2016 as derived from the April 1, 2015 *Blue Chip* averaged with the
3 long-range forecasts for 2016-2020 and 2021-2025 from the December 1, 2014
4 *Blue Chip* (shown on pages 9 and 10 of Schedule (PMA-6)). As shown on Line
5 No. 1 of page 3, the average expected yield on Moody's Aaa rated corporate
6 bonds is 4.74%. An adjustment of 0.10% is necessary to adjust that average
7 Aaa corporate bond yield to be equivalent to a Moody's A rated public utility
8 bond, as shown on Line No. 2 and explained in Note 2 resulting in an expected
9 bond yield applicable to a Moody's A rated public utility bond of 4.84% as shown
10 on Line No. 3.

11 Since the eight water companies' average Moody's issuer rating is A2/A3,
12 an adjustment of 0.13% is necessary to make the prospective bond yield
13 applicable to the proxy group's average A2/A3 long-term issuer rating, as
14 detailed in Note 3 on page 3 of Schedule (PMA-6). Therefore, the adjusted
15 prospective bond yield is 4.97% for the eight water companies as shown on Line
16 No. 5.

17 **Q. PLEASE EXPLAIN THE METHOD OF ESTIMATING THE EQUITY RISK**
18 **PREMIUM IN THE ADJUSTED TOTAL MARKET APPROACH.**

19 A. I evaluated the results of market equity risk premium studies based upon
20 Ibbotson Associates' data and *Value Line's* forecasted total annual market return
21 in excess of the prospective yield on Moody's Aaa corporate bonds, as well as
22 two different studies of the equity risk premium for public utilities with Moody's A
23 rated bonds as detailed on pages 8 and 11 of Schedule (PMA-6). As shown on

1 Line No. 3, page 7 of Schedule (PMA-6), the average equity risk premium is
2 4.78% applicable to the eight water companies. This estimate is the result of an
3 average of a beta-derived equity risk premium as well as the average public
4 utility equity risk premium relative to bonds rated A by Moody's based upon
5 holding period returns.

6 **Q. PLEASE EXPLAIN THE BASIS OF THE BETA-DERIVED EQUITY RISK**
7 **PREMIUM.**

8 A. The basis of the beta-derived equity risk premium applicable to the proxy group
9 is shown on page 8 of Schedule (PMA-6). The beta-determined equity risk
10 premium is relevant because betas are derived from the market prices of
11 common stocks over a recent five-year period. Beta is a measure of relative risk
12 to the market as a whole and a logical means by which to allocate an
13 entity's/proxy group's share of the total market's equity risk premium relative to
14 corporate bond yields.

15 The total market equity risk premium utilized is 6.26%, based upon an
16 average of the long-term arithmetic mean historical market equity risk premium;
17 a predicted market equity risk premium based upon the PRPM; a forecasted
18 market equity risk premium based upon *Value Line's* projected market
19 appreciation and dividend yield; and, a forecasted market equity risk based upon
20 the S&P 500's projected market appreciation and dividend yield as detailed
21 below and in Notes 1 through 4 on page 7 of Schedule (PMA-6)).

22 **Q. HOW DID YOU DERIVE THE LONG-TERM HISTORICAL MARKET EQUITY**
23 **RISK PREMIUM?**

1 A. To derive the historical (expectational) market equity risk premium, I used the
2 most recent Morningstar data on holding period returns for the large company
3 common stocks from the Stocks, Bonds, Bill and Inflation Ibbotson® SBBI® 2015
4 Market Report (“SBBI – 2015 Market Report”)²³ and the average historical yield
5 on Moody’s Aaa and Aa rated corporate bonds for the period 1926-2014.
6 Moreover, the use of holding period returns over a very long period of time is
7 useful because it is consistent with the long-term investment horizon presumed
8 by the DCF model.

9 Consequently, as explained in Note 1 on page 8 of Schedule (PMA-6), the
10 long-term arithmetic mean monthly total return rate on large company common
11 stocks of 12.07% and the long-term arithmetic mean monthly yield on Moody’s
12 Aaa and Aa rated corporate bonds of 6.18% were used. As shown on Line No.
13 1, the resultant long-term historical equity risk premium on the market as a whole
14 is 5.89%.

15 I used arithmetic mean monthly total return rates for the large company
16 stocks and yields (income returns) for Moody’s Aaa/Aa corporate bonds,
17 because they are appropriate for cost of capital purposes as noted in the
18 Ibbotson® SBBI® 2015 Classic Yearbook – Market Results for Stocks, Bonds, Bill
19 and Inflation 1926 – 2015 (“SBBI – 2015”)²⁴. Arithmetic mean return rates and
20 yields are appropriate because ex-post (historical) total returns and equity risk
21 premiums differ in size and direction over time, providing insight into the variance
22 and standard deviation of returns. Because the arithmetic mean captures the

²³ Stocks, Bonds, Bills and Inflation Ibbotson® SBBI® 2015 Market Report, Morningstar, Inc., 2015.

²⁴ Ibbotson® SBBI® 2015 Classic Yearbook – Market Results for Stocks, Bonds, Bills and Inflation

1 prospect for variance in returns and equity risk premiums, it provides the
2 valuable insight needed by investors in estimating future risk when making a
3 current investment. Absent such valuable insight into the potential variance of
4 returns, investors cannot meaningfully evaluate prospective risk. If investors
5 alternatively relied upon the geometric mean of ex-post equity risk premiums,
6 they would have no insight into the potential variance of future returns because
7 the geometric mean relates the change over many periods of time to a constant
8 rate of change, thereby obviating the period-to-period fluctuations, or variance,
9 *critical to risk analysis.*

10 Only the arithmetic mean takes into account all of the returns / premiums,
11 hence, providing meaningful insight into the variance and standard deviation of
12 those returns / premiums.

13 **Q. PLEASE EXPLAIN THE DERIVATION OF PRPM MARKET EQUITY RISK**
14 **PREMIUM.**

15 A. The inputs to the model are the historical monthly returns on large company
16 common stocks from the SBBI – 2015 Market Report minus the monthly yields on
17 Aaa and Aa corporate bonds during the period from January 1926 through
18 February 2015 (the latest available at the time of the preparation of this
19 testimony), consistent with the rationale for using of the long-term historical
20 arithmetic market equity risk premium discussed above. Using the previously
21 discussed generalized form of ARCH, known as GARCH, the market's projected
22 equity risk premium was determined using Eviews[®] statistical software. The

1926 – 2014, Morningstar, Inc., 2015 153.

1 resulting predicted market equity risk premium based upon the PRPM of 6.37%.

2 **Q. PLEASE EXPLAIN THE DERIVATION OF A MARKET EQUITY RISK**
3 **PREMIUM BASED UPON VALUE LINE'S 3-5 YEAR ESTIMATED MEDIAN**
4 **TOTAL ANNUAL MARKET RETURN MINUS THE PROSPECTIVE YIELD ON**
5 **AAA RATED CORPORATE BONDS IN YOUR DEVELOPMENT OF A MARKET**
6 **EQUITY RISK PREMIUM FOR YOUR RPM ANALYSIS.**

7 A. Because both ratemaking and the cost of capital, including the cost rate of
8 common equity, are prospective, a prospective market equity risk premium is
9 essential. The derivation of the *Value Line* based forecasted or prospective
10 market equity risk premium of 4.67% can be found in Note 3 on page 8 of
11 Schedule (PMA-6). Consistent with the development of the dividend yield
12 component of my DCF analysis, it is derived from an average of the most recent
13 thirteen weeks ending March 27, 2015 3-5 year estimated median market price
14 appreciation potential by *Value Line* plus an average of the median estimated
15 dividend yield for the common stocks of the approximately 1,700 firms covered in
16 *Value Line's* Standard Edition as explained in detail in Note 1 on page 2 of
17 Schedule (PMA-7).

18 The average median expected price appreciation is 33%, which translates
19 to a 7.39% annual appreciation and, when added to the average (similarly
20 calculated) median dividend yield of 2.02% equates to a forecasted annual total
21 return rate on the market as a whole of 9.41%. The forecasted total market
22 equity risk premium of 4.67%, shown on Line No. 3, page 8 of Schedule (PMA-
23 6), is derived by deducting the 4.74% prospective yield on Moody's Aaa rated

1 corporate bonds discussed previously from the *Value Line*-derived projected
2 market return of 9.41% ($4.67\% = 9.41\% - 4.74\%$).

3 **Q. PLEASE EXPLAIN THE DERIVATION OF THE MARKET EQUITY RISK**
4 **PREMIUM BASED UPON THE S&P 500.**

5 A. Using data from Bloomberg Professional Service, an expected total return for the
6 S&P 500 can be derived by adding the expected dividend yield for the S&P 500
7 to long-term growth in earnings per share as a proxy for capital appreciation.
8 The expected total return for the S&P 500 is 12.86%. Subtracting the
9 prospective yield on Moody's Aaa rated corporate bonds of 4.74% results in a
10 8.12% projected market equity risk premium.

11 In arriving at my conclusion of market equity risk premium of 6.26% on
12 Line No. 4 on page 8, I averaged the historical market equity risk premium of
13 5.89%; the PRPM based market equity risk premium of 6.37%; the *Value Line*-
14 based forecasted market equity risk premium of 4.67%; and, the S&P 500
15 projected market equity risk premium of 8.12% shown on Line Nos. 1 through 4.
16 ($6.26\% = ((5.89\% + 6.37\% + 4.67\% + 8.12\%) / 4)$).

17 **Q. WHAT IS YOUR CONCLUSION OF A BETA-DERIVED EQUITY RISK**
18 **PREMIUM FOR USE IN YOUR RPM ANALYSIS?**

19 A. As shown on page 1 of Schedule (PMA-7), the most current average and median
20 *Value Line* betas for the eight water companies average 0.76. Applying a beta of
21 0.76 to the market equity risk premium of 6.26%, on Line No. 4 of page 8 of
22 Schedule (PMA-6), results in a beta adjusted equity risk premium of 4.76% for
23 the eight water companies.

1 **Q. HOW DID YOU DERIVE THE 4.80% EQUITY RISK PREMIUM BASED UPON**
2 **THE S&P UTILITY INDEX AND MOODY'S A RATED PUBLIC UTILITY**
3 **BONDS?**

4 A. First, I derived the long-term monthly arithmetic mean equity risk premium
5 between the S&P Utility Index total returns of 10.69% and monthly A rated public
6 utility bond yields of 6.48% from 1928-2014 to arrive at an equity risk premium of
7 4.21% as shown on Line No. 3 on page 11 of Schedule (PMA-6). I then
8 performed the PRPM using historical monthly equity risk premiums from January
9 1928 through March 2015 to arrive at the PRPM derived equity risk premium of
10 4.48% for the S&P Utility Index shown on Line No. 4, on page 11. Finally, I
11 derived the projected total return on the S&P Utilities Index using data from
12 Bloomberg Professional Service of 10.55%, identically to the projected total
13 return on the S&P 500 discussed above, and subtracting the prospective
14 Moody's A rated public utility bond yield of 4.84% from Line No. 3 on page 3 of
15 Schedule (PMA-6). The resulting equity risk premium is 5.71%

16 I rely upon the average of the historical (4.21%); the PRPM (4.48%) and
17 S&P Utilities Index (5.71%) derived equity risk premiums, which is 4.80%.
18 $(4.80\% = ((4.21\% + 4.48\% + 5.71\%) / 3).$

19 **Q. WHAT IS YOUR CONCLUSION OF AN EQUITY RISK PREMIUM FOR USE IN**
20 **YOUR ADJUSTED TOTAL MARKET APPROACH RPM ANALYSIS?**

21 A. The equity risk premium applicable to the proxy group of eight water companies
22 is the average of the beta-derived premium, 4.76%, and that based upon the
23 holding period returns of public utilities with Moody's A rated bonds, 4.80%, as

1 summarized on Line No. 3 on Schedule (PMA-6), page 7, i.e., $(4.78\% = (4.76\%$
2 $+ 4.80\%) / 2)$.

3 **Q. WHAT IS THE INDICATED RPM COMMON EQUITY COST RATE BASED**
4 **UPON THE ADJUSTED TOTAL MARKET APPROACH?**

5 A. It is 9.75% for the eight water companies as shown on Line No. 7 on Schedule
6 (PMA-6) page 3.

7 **Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE PRPM AND**
8 **THE ADJUSTED TOTAL MARKET APPROACH RPM?**

9 A. As shown on page 1 of Schedule (PMA-6), the indicated RPM-derived common
10 equity cost rate is 10.72%, derived by averaging the PRPM results with those
11 based upon the adjusted total market approach. $(10.72\% = ((11.69\% + 9.75\%) /$
12 $2)$.

13 **The Capital Asset Pricing Model ("CAPM")**

14 **Q. PLEASE EXPLAIN THE THEORETICAL BASIS OF THE CAPM.**

15 A. CAPM theory defines risk as the covariability of a security's returns with the
16 market's returns as measured by beta (β). A beta less than 1.0 indicates lower
17 variability while a beta greater than 1.0 indicates greater variability than the
18 market.

19 The CAPM assumes that all other risk, i.e., all non-market or unsystematic
20 risk, can be eliminated through diversification. The risk that cannot be eliminated
21 through diversification is called market or systematic risk. In addition, the CAPM
22 presumes that investors require compensation only for these systematic risks
23 that are the result of macroeconomic and other events that affect the returns on

1 all assets. The model is applied by adding a risk-free rate of return to a market
2 risk premium, which is adjusted proportionately to reflect the systematic risk of
3 the individual security relative to the total market as measured by beta. The
4 traditional CAPM model is expressed as:

$$5 \quad R_s = R_f + \beta(R_m - R_f)$$

6
7 Where: R_s = Return rate on the common stock

8
9 R_f = Risk-free rate of return

10
11 R_m = Return rate on the market as a whole

12
13 β = Adjusted beta (volatility of the security
14 relative to the market as a whole)

15
16 Numerous tests of the CAPM have measured the extent to which security
17 returns and betas are related as predicted by the CAPM confirming its validity.
18 The empirical CAPM ("ECAPM") reflects the reality that while the results of these
19 tests support the notion that beta is related to security returns, the empirical
20 Security Market Line ("SML") described by the CAPM formula is not as steeply
21 sloped as the predicted SML.²⁵

22 In view of theory and practical research, I have applied both the traditional
23 CAPM and the ECAPM to the companies in the proxy group and averaged the
24 results.

25 **Q. PLEASE DESCRIBE YOUR SELECTION OF THE BETA COEFFICIENT FOR**
26 **YOUR CAPM ANALYSIS?**

27 A. I relied upon an average of the adjusted betas published by the *Value Line* and
28 provided by Bloomberg Professional Service.

²⁵ Morin 175.

1 **Q. PLEASE DESCRIBE YOUR SELECTION OF A RISK-FREE RATE OF RETURN**
2 **FOR YOUR CAPM ANALYSIS.**

3 A. As shown in column [3] on page 1 of Schedule (PMA-7), the risk-free rate
4 adopted for both applications of the CAPM is 3.68%. The risk-free rate for my
5 CAPM analysis is based upon the average of the consensus forecast of the third
6 calendar quarter of 2016 from the April 1, 2015 *Blue Chip* averaged with the
7 long-range forecasts for 2016-2020 and 2021-2025 from the December 1, 2014
8 *Blue Chip*, as shown in Note 2, page 2 of Schedule (PMA-7).

9 **Q. WHY IS THE YIELD ON LONG-TERM U.S. TREASURY BONDS**
10 **APPROPRIATE FOR USE AS THE RISK-FREE RATE?**

11 A. The yield on long-term U.S. Treasury T-Bonds is almost risk-free and its term is
12 consistent with the long-term cost of capital to public utilities measured by the
13 yields on A rated public utility bonds, the long-term investment horizon inherent
14 in utilities' common stocks, the long-term investment horizon presumed in the
15 standard DCF model employed in regulatory ratemaking, and the long-term life
16 of the jurisdictional rate base to which the allowed fair rate of return (i.e., cost of
17 capital) will be applied. In contrast, short-term U.S. Treasury yields are more
18 volatile and largely a function of Federal Reserve monetary policy.

19 **Q. PLEASE EXPLAIN THE ESTIMATION OF THE EXPECTED EQUITY RISK**
20 **PREMIUM FOR THE MARKET.**

21 A. The basis of the market equity risk premium is explained in detail in Note 1 on
22 page 2 of Schedule (PMA-7). It is derived from *Value Line's* 3-5 year median
23 total market price appreciation projections averaged over the most recent

1 thirteen weeks ending March 27, 2015; the arithmetic mean monthly equity risk
2 premiums of large company common stocks relative to long-term U.S. Treasury
3 bond income yields from SBBI – 2015 Market Report from 1926-2014; the PRPM
4 predicted market equity risk premium using monthly equity risk premiums for
5 large company common stocks relative to long-term U.S. Treasury securities
6 from January 1926 through February 2015 (the latest available at the time of the
7 preparation of this testimony); and, the projected total return on the S&P 500
8 less the projected risk free rate as detailed below and in Note 1 on of Schedule
9 (PMA-7).

10 The *Value Line*-derived forecasted total market equity risk premium is
11 derived by deducting the 3.68% risk-free rate discussed above from the *Value*
12 *Line* projected total annual market return of 9.41%, also discussed above,
13 resulting in a forecasted total market equity risk premium of 5.80%.

14 The long-term income return on U.S. Government Securities of 5.23%
15 was deducted from the SBBI – 2015 Market Report monthly historical total
16 market return of 12.07% resulting in an historical market equity risk premium of
17 6.84%.

18 The PRPM market equity risk premium is 7.19%, derived using the PRPM,
19 discussed above, relative to the yields on long-term U.S. Treasury securities
20 from January 1926 through February 2015 (the latest available at the time of the
21 preparation of this testimony).

22 The S&P 500 projected market equity risk premium of 9.18% is derived by
23 subtracting the 3.68% projected risk-free rate, discussed above, from the

1 projected total return of 12.86%, also discussed above.

2 These four market equity risk premiums result in an average total market
3 equity risk premium of 7.23%. $(7.23\% = ((5.73\% + 6.84\% + 7.19\% + 9.18\%) / 4)$

4 **Q. WHAT ARE THE RESULTS OF YOUR APPLICATION OF THE TRADITIONAL**
5 **AND EMPIRICAL CAPM TO THE PROXY GROUP?**

6 A. As shown on Schedule (PMA-7), page 1, the average traditional CAPM cost rate
7 is 9.10% while the average ECAPM result is 9.55%, averaging 9.33% for the
8 eight water companies. The median tradition CAPM cost rate is 9.14% while the
9 median ECAPM cost rate is 9.58%, averaging 9.36%. Consistent with my
10 reliance upon the average of the average and median results of the DCF
11 discussed above, I rely upon the average of the average and median results of
12 the traditional CAPM and ECAPM for the proxy group, 9.33% and 9.36%,
13 respectively, or 9.35% as shown on column [6] on page 1 of Schedule (PMA-7).
14 $(9.35\% = ((9.33\% + 9.36\%) / 2)$

15 **Common Equity Cost Rates for the Proxy Group of Domestic, Non-Price**
16 **Regulated Companies Based Upon the DCF, RPM and CAPM**

17 **Q. PLEASE DESCRIBE THE BASIS OF APPLYING COST OF COMMON EQUITY**
18 **MODELS TO COMPARABLE RISK, NON-PRICE REGULATED COMPANIES.**

19 A. Applying cost of common equity models to non-price regulated companies,
20 comparable in total risk, is derived from the "*corresponding risk*" standard of the
21 landmark cases of the U.S. Supreme Court, i.e., *Hope* and *Bluefield*, previously
22 discussed. Therefore, it is consistent with the *Hope* doctrine that the return to
23 the equity investor should be commensurate with returns on investments in other

1 firms having corresponding risks based upon the fundamental economic concept
2 of opportunity cost which maintains that the true cost of an investment is equal to
3 the cost of the best available alternative use of the funds to be invested. The
4 opportunity cost principle is also consistent with one of the fundamental
5 principles upon which regulation rests: that regulation is intended to act as a
6 surrogate for competition and to provide a fair rate of return to investors.

7 The first step in determining such an opportunity cost of common equity
8 based upon a group of non-price regulated companies comparable in total risk to
9 the eight water companies is to choose an appropriate broad-based proxy group
10 of non-price regulated firms comparable in total risk to the proxy group of eight
11 water companies which excludes utilities to avoid circularity.

12 The selection criteria for the non-price regulated firms of comparable risk
13 are based upon statistics derived from the market prices paid by investors. *Value*
14 *Line* betas were used as a measure of systematic risk. The standard error of the
15 regression was used as a measure of each firm's unsystematic or specific risk
16 with the standard error of the regression reflecting the extent to which events
17 specific to a company's operations affect its stock price. In essence, companies
18 which have similar betas and standard errors of the regression, have similar total
19 investment risk. Using a *Value Line* proprietary database dated April 2015, the
20 application of these criteria based upon the eight water companies results in a
21 proxy group of non-price regulated firms comparable in total risk to the average
22 water company in the proxy group of eight water companies as explained on
23 page 1 of Schedule (PMA-8). Page 3 provides the identities of the companies in

1 the proxy group of non-price regulated companies.

2 **Q. DID YOU CALCULATE COMMON EQUITY COST RATES USING THE DCF,**
3 **RPM AND CAPM FOR THE PROXY GROUP OF DOMESTIC, NON-PRICE**
4 **REGULATED COMPANIES THAT ARE COMPARABLE IN TOTAL RISK TO**
5 **THE UTILITY PROXY GROUP?**

6 A. Yes. Because the DCF, RPM and CAPM have been applied in an identical
7 manner as described above relative to the market data of the eight water
8 companies, I will not repeat the details of the rationale and application of each
9 model shown on page 1 of Schedule (PMA-9). An exception is that, in the
10 application of the RPM, I did not use public utility-specific equity risk premiums
11 nor apply the PRPM to the individual companies. .

12 Page 2 of Schedule (PMA-9) contains the derivation of the DCF cost rates.
13 As shown, the average of the average and median DCF cost rates for the proxy
14 group of eighteen non-price regulated companies comparable in total risk to the
15 eight water companies, is 11.85%.

16 Pages 3 through 5 of Schedule (PMA-9) contain information relating to the
17 10.29% RPM cost rate for the proxy group of eighteen non-price regulated
18 companies summarized on page 3. As shown on Line No. 1 of page 3, the
19 consensus prospective yield on Moody's Baa rated corporate bonds of 5.58% is
20 based upon the forecasted yields for the six quarters ending with the third quarter
21 of 2016 averaged with the long-range forecasted yields for 2016-2020 and 2021-
22 2025 from the April 1, 2015 and December 1, 2014 *Blue Chip*, respectively. Since
23 the eighteen non-price regulated companies comparable in total risk to the eight

1 water companies have an average Moody's long-term issuer rating of Baa1 as
2 shown on page 4 of Schedule (PMA-9), a downward adjustment of 0.24% is
3 necessary to make the prospective bond yield applicable to the Baa1 corporate
4 bond yield. Thus, the expected specific bond yield is 5.34% for the eighteen non-
5 price regulated companies as shown on Line No. 1 on page 3 of Schedule (PMA-
6 9). When the beta-adjusted risk premium of 4.95% relative to the proxy group of
7 non-price regulated companies, as derived on page 5, is added to the prospective
8 Baa rated corporate bond yields of 5.34%, the indicated RPM cost rate is 10.29%.

9 Page 6 of Schedule (PMA-9) contains the details of the application of the
10 traditional CAPM and ECAPM to the proxy group of eighteen non-price regulated
11 companies comparable in total risk to the eight water companies. As shown, the
12 average and median traditional CAPM and ECAPM results are 9.56% and 9.52%,
13 for the eighteen non-price regulated companies which, when averaged, result in
14 an indicated CAPM cost rate of 9.54%.

15 **Q. WHAT IS YOUR CONCLUSION OF THE COST RATE OF COMMON EQUITY**
16 **BASED UPON THE PROXY GROUP OF NON-PRICE REGULATED**
17 **COMPANIES COMPARABLE IN TOTAL RISK TO THE EIGHT WATER**
18 **COMPANIES?**

19 A. As shown on page 1 of Schedule (PMA-9), the results of the DCF, RPM and
20 CAPM applied to the non-price regulated group comparable in total risk to the
21 eight water companies are 11.85%, 10.29% and 9.54%, respectively. Based
22 upon these results, I will rely upon the 10.43% average of the average DCF,
23 RPM and CAPM results of 10.56% and median results of 10.29% for the proxy

1 group of non-price regulated companies as summarized on page 1 of Schedule
2 (PMA-9) ($10.43\% = (10.56\% + 10.29\%) / 2$).

3 **Conclusion of Common Equity Cost Rate**

4 **Q. WHAT IS YOUR RECOMMENDED COMMON EQUITY COST RATE?**

5 A. It is 10.40% based upon the indicated common equity cost rate resulting from
6 the application of multiple cost of common equity models to the eight water
7 companies adjusted for UWID's business risks.

8 As discussed above, I employ multiple cost of common equity models as
9 primary tools in arriving at my recommended common equity cost rate because:
10 1) no single model is so inherently precise that it can be relied upon solely to the
11 exclusion of other theoretically sound models; 2) all of the models are market-
12 based; 3) the use of multiple models adds reliability to the estimation of the
13 common equity cost rate; and 4) the prudence of using multiple cost of common
14 equity models is supported in both the financial literature and regulatory
15 precedent. Therefore, no single model should be relied upon exclusively to
16 estimate the investor required rate of return on common equity.

17 The results of the cost of common equity models applied to the eight
18 water companies are shown on page 2 of Schedule (PMA-1), and summarized
19 below:

1 Table 3

2 Proxy Group
3 of Eight
4 Water
5 Companies

7	Discounted Cash Flow Model	8.54%
8	Risk Premium Model	10.72
9	Capital Asset Pricing Model	9.35
10		
11	Cost of Equity Models Applied to	
12	Comparable Risk, Non-Price	
13	Regulated Companies	<u>10.43%</u>
14		
15	Indicated Common Equity	
16	Cost Rate	9.83%
17		
18	Business Risk Adjustment	<u>0.55%</u>
19		
20	Indicated Common Equity Cost Rate	10.38%
21		
22	Recommended Common Equity Cost Rate	<u>10.40%</u>

23 **Business Risk Adjustment**

24 **Q. IS THERE A WAY TO QUANTIFY A BUSINESS RISK ADJUSTMENT DUE TO**
25 **UWID'S SMALL SIZE RELATIVE TO THE PROXY GROUP?**

26 A. Yes. As discussed above, increased risk due to small size must be taken into
27 account in the cost of common equity consistent with the financial principle of
28 risk and return. Since the Company is smaller in size relative to the proxy group,
29 measured by the estimated market capitalization of common equity for UWID,
30 whose common stock is not traded, it has greater business risk than the average
31 company in the proxy group.

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Table 4

	<u>Market Capitalization(1)</u> (\$ Millions)	<u>Times Greater than the Company</u>
United Water Idaho Inc.	\$201.415	
Proxy Group of Eight Water Companies	\$2,349.349	11.7x

(1) From page 1 of Schedule (PMA-10).

15 As derived on page 2 of Schedule (PMA-10), UWID's estimated market
16 capitalization based upon the proxy group's March 27, 2015 market-to-book ratio
17 was \$201.415 million. In contrast, the market capitalization of the average water
18 company was \$2.349 billion on March 27, 2015, or 11.7 times the size of UWID's
19 market capitalization.

20 Therefore, it is necessary to upwardly adjust the indicated common equity
21 cost rate of 9.83% based upon the eight water companies to reflect UWID's
22 greater risk due to its smaller relative size. The determination is based upon the
23 size premiums for decile portfolios of New York Stock Exchange (NYSE),
24 American Stock Exchange (AMEX) and NASDAQ listed companies for the 1926-
25 2014 period and related data from Duff & Phelps 2015 Valuation Handbook
26 Guide to Cost of Capital – Market Results through 2014 (D&P – 2015). The size
27 premium for the 6th decile (1.74%) in which the eight water companies fall has
28 been compared with the size premium for the 10th decile (5.78%) in which the
29 estimated market capitalization of UWID falls. As shown on page 1, the size
30 premium spread between the 10th and 6th deciles is 4.04%. In view of the

1 foregoing, I am recommending a business risk adjustment to reflect UWID's
2 greater relative business risk due to UWID's smaller size relative to the proxy
3 group of 0.55%. In my opinion, a business risk adjustment of 0.55% is both
4 reasonable and conservative, given UWID's increased business risk relative to
5 that of the proxy group due to UWID's based upon the risk issues surrounding
6 UWID's water rights, the arid desert environment of its service territory and the
7 large expected capital expenditures projected by UWID.

8 Adding a business risk adjustment of 0.55% to the 9.83% indicated
9 common equity cost rate based upon the eight water companies, before
10 adjustment, results in a business risk-adjusted common equity cost rate of
11 10.38%²⁶ which when rounded to 10.40% is my recommended common equity
12 cost rate.

13 In my opinion, a common equity cost rate of 10.40 which results in an
14 overall rate of return of 8.45% is both reasonable and conservative.

15 A common equity cost rate of 10.40% is consistent with the *Hope* and
16 *Bluefield* standards of a fair and reasonable return which ensures the integrity of
17 presently invested capital and enables the attraction of needed new capital on
18 reasonable terms. It also ensures the continued reliability and quality of service
19 to the benefit of ratepayers. Thus, it balances the interests of both ratepayers
20 and the Company.

21 **Q. DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

22 **A.** Yes.

²⁶ 10.38% = 9.83% + 0.55%.

APPENDIX A

PROFESSIONAL QUALIFICATIONS

OF

PAULINE M. AHERN, CRRA
PARTNER

SUSSEX ECONOMIC ADVISORS, LLC

**PROFESSIONAL QUALIFICATIONS
OF
PAULINE M. AHERN, CRRA
PARTNER
SUSSEX ECONOMIC ADVISORS, LLC**

PROFESSIONAL EXPERIENCE

2015-Present

In 2015, I joined Sussex Economic Advisors, LLC as a partner. I am responsible for providing testimony as an expert witness on subjects of fair rate of return, cost of capital and related issues before public utility regulatory commissions. I also provide assistance and support to clients throughout the entire ratemaking litigation process.

I continue to be responsible for maintaining and calculating the performance of the AGA Index, a market capitalization weighted index of the common stocks of the approximately 70 corporate members of the AGA, which serves as the benchmark for the AGA Gas Utility Index Fund.

As a Partner, I am also involved in strategic planning for Sussex Economic Advisors, LLC.

1994-2015

In 2014, I became a Managing Principal of AUS Consultants responsible for continuing to manage the consulting practice, in addition to providing testimony as an expert witness as described below. I am also a Vice President of AUS Inc.

In 1996, I became a Principal of AUS Consultants, continuing to offer testimony as an expert witness on the subjects of fair rate of return, cost of capital and related issues before state public utility commissions. I provide assistance and support to clients throughout the entire ratemaking litigation process. In addition, I supervise the financial analyst and administrative staff in the preparation of fair rate of return and cost of capital exhibits which are filed along with expert testimony before various state and federal public utility regulatory bodies. The team also assists in the preparation of interrogatory responses, as well as rebuttal exhibits.

As the Publisher of AUS Utility Reports (formerly C. A. Turner Utility Reports), I am responsible for the production, publishing, and distribution of the reports. AUS Utility Reports provides financial data and related ratios for about 80 public utilities, i.e., electric, combination gas and electric, natural gas distribution, natural gas transmission, telephone, and water utilities, on a monthly, quarterly and annual basis. Among the subscribers of AUS Utility Reports are utilities, many state regulatory commissions, federal agencies, individuals, brokerage firms, attorneys, as well as public and academic libraries. The publication has continuously provided financial statistics on the utility industry since 1930.

I am also responsible for maintaining and calculating the performance of the AGA Index, a market capitalization weighted index of the common stocks of the

approximately 70 corporate members of the AGA, which serves as the benchmark for the AGA Gas Utility Index Fund.

As an Assistant Vice President from 1994 - 1996, I prepared fair rate of return and cost of capital exhibits which were filed along with expert testimony before various state and federal public utility regulatory bodies. These supporting exhibits include the determination of an appropriate ratemaking capital structure and the development of embedded cost rates of senior capital. The exhibits also support the determination of a recommended return on common equity through the use of various market models, such as, but not limited to, Discounted Cash Flow analysis, Capital Asset Pricing Model and Risk Premium Methodology, as well as an assessment of the risk characteristics of the client utility. I also assisted in the preparation of responses to any interrogatories received regarding such testimonies filed on behalf of client utilities. Following the filing of fair rate of return testimonies, I assisted in the evaluation of opposition testimony in order to prepare interrogatory questions, areas of cross-examination, and rebuttal testimony. I also evaluated and assisted in the preparation of briefs and exceptions following the hearing process. I also submitted testimony before state public utility commissions regarding appropriate capital structure ratios and fixed capital cost rates.

1990-1994

As a Senior Financial Analyst, I supervised two analysts and assisted in the preparation of fair rate of return and cost of capital exhibits which are filed along with expert testimony before various state and federal public utility regulatory bodies. The team also assisted in the preparation of interrogatory responses.

I evaluated the final orders and decisions of various commissions to determine whether further actions were warranted and to gain insight which assisted in the preparation of future rate of return studies.

I assisted in the preparation of an article authored by Frank J. Hanley and A. Gerald Harris entitled "Does Diversification Increase the Cost of Equity Capital?" published in the July 15, 1991 issue of Public Utilities Fortnightly.

In 1992, I was awarded the professional designation "Certified Rate of Return Analyst" (CRRRA) by the National Society of Rate of Return Analysts (now the Society of Utility and Regulatory Financial Analysts (SURFA)). This designation is based upon education, experience and the successful completion of a comprehensive examination.

As Administrator of Financial Analysis for AUS Utility Reports, which then reported financial data for over 200 utility companies with approximately 1,000 subscribers, I oversaw the preparation of this monthly publication, as well as the accompanying annual publication, Financial Statistics - Public Utilities.

1988-1990

As a Financial Analyst, I assisted in the preparation of fair rate of return studies including capital structure determination, development of senior capital cost rates, as well as the determination of an appropriate rate of return on equity. I also assisted in the preparation of interrogatory responses, interrogatory questions of the opposition,

areas of cross-examination and rebuttal testimony. I also assisted in the preparation of the annual publication C. A. Turner Utility Reports - Financial Statistics -Public Utilities.

1973-1975

As a Research Assistant in the Research Department of the Regional Economics Division of the Federal Reserve Bank of Boston, I was involved in the development and maintenance of econometric models to simulate regional economic conditions in New England in order to study the effects of, among other things, the energy crisis of the early 1970's and property tax revaluations on the economy of New England. I was also involved in the statistical analysis and preparation of articles for the New England Economic Review. Also, I was Assistant Editor of New England Business Indicators.

1972

As a Research Assistant in the Office of the Assistant Secretary for International Affairs, U.S. Treasury Department, Washington, D.C., I developed and maintained econometric models which simulated the economy of the United States in order to study the results of various alternate foreign trade policies so that national trade policy could be formulated and recommended.

Clients Served

I have offered expert testimony before the following commissions:

Alaska	Maine
Arkansas	Maryland
Arizona	Michigan
British Columbia	Missouri
California	Nevada
Connecticut	New Hampshire
Delaware	New Jersey
Florida	New York
Hawaii	North Carolina
Idaho	Ohio
Illinois	Pennsylvania
Indiana	Rhode Island
Iowa	South Carolina
Kentucky	Virginia
Louisiana	Washington

I have sponsored testimony on fair rate of return and related issues for:

Alpena Power Company
Apple Canyon Utility Company

Applied Wastewater Management, Inc.
Aqua Illinois, Inc.

Aqua New Jersey, Inc.
Aqua North Carolina, Inc.
Aquarion Water Company
Aquarion Water Co. of New Hampshire,
Inc.
Arizona Water Company
Artesian Water Company
The Atlantic City Sewerage Company
Audubon Water Company
Bermuda Water Company
Carolina Pines Utilities, Inc.
Carolina Water Service, Inc. of NC
Carolina Water Service, Inc. of SC
Chaparral City Water Company
The Columbia Water Company
The Connecticut Water Company
Consumers Illinois Water Company
Consumers Maine Water Company
Consumers New Jersey Water
Company
Corix Utilities
City of DuBois, Pennsylvania
Elizabethtown Water Company
Emporium Water Company
EPCOR Water Arizona, Inc.
Fairbanks Natural Gas LLC
Greenridge Utilities, Inc.
The Borough of Hanover, PA
GTE Hawaiian Telephone Inc.
Illinois American Water Company
Indiana American Water Company
Iowa American Water Company
Jersey Central Power & Light Co.
Lake Wildwood Utilities Corp.
Land'Or Utility Company
Long Island American Water Company
Long Neck Water Company
Louisiana Water Service, Inc.
Maine Water Company
Massanutten Public Service Company
Middlesex Water Company
Missouri Gas Energy
Missouri-American Water Company
Mt. Holly Water Company
Nero Utility Services, Inc.
New Jersey Utilities Association

Aqua Ohio, Inc.
Aqua Virginia, Inc.
The Newtown Artesian Water Company
NRG Energy Center Harrisburg LLC
NRG Energy Center Pittsburgh LLC
Ohio-American Water Company
Penn Estates Utilities
Pinelands Waste Water Company
Pinelands Water Company
Pioneer Water LLC
Pittsburgh Thermal
San Gabriel Valley Water Company
San Jose Water Company
Southland Utilities, Inc.
Spring Creek Utilities, Inc.
Sussex Shores Water Company
Tega Cay Water Services, Inc.
Thames Water Americas
Tidewater Utilities, Inc.
Total Environmental Services, Inc. –
Treasure Lake Water & Sewer
Divisions
Transylvania Utilities, Inc.
Trigen – Philadelphia Energy
Corporation
Twin Lakes Utilities, Inc.
United Utility Companies
United Water Arkansas, Inc.
United Water Arlington Hills Sewerage,
Inc.
United Water Connecticut, Inc.
United Water Delaware, Inc.
United Water Great Gorge Inc./United
Water
Vernon Transmission, Inc.
United Water Idaho, Inc.
United Water Indiana, Inc.
United Water New Jersey, Inc.
United Water New Rochelle, Inc.
United Water New York, Inc.
United Water Owego/Nichols, Inc.
United Water Pennsylvania, Inc.
United Water Rhode Island, Inc.
United Water South County, Inc.
United Water Toms River, Inc.
United Water Vernon Sewage Inc.

United Water Virginia, Inc.
United Water West Lafayette, Inc.
United Water West Milford, Inc.
United Water Westchester, Inc.
Utilities, Inc.
Utilities Inc. of Central Nevada
Utilities, Inc. of Florida
Utilities, Inc. of Louisiana
Utilities, Inc. of Nevada

Utilities, Inc. of Pennsylvania
Utilities, Inc. - Westgate
Utilities Services of South Carolina
Utility Center, Inc.
Valley Energy, Inc.
Water Services Corp. of Kentucky
Wellsboro Electric Company
Western Utilities, Inc.

I have sponsored testimony on generic/uniform methodologies for determining the return on common equity for:

Aquarion Water Company
The Connecticut Water Company
Corix Multi-Utility Services, Inc.

United Water Connecticut, Inc.
Utilities, Inc.

I have sponsored testimony on the rate of return and capital structure effects of merger and acquisition issues for:

California-American Water Company
Company

New Jersey-American Water

I have sponsored testimony on capital structure and senior capital cost rates for the following clients:

Alpena Power Company
Arkansas-Western Gas Company
Associated Natural Gas Company

PG Energy Inc.
United Water Delaware, Inc.
Washington Natural Gas Company

I have sponsored testimony on Distribution System Improvement Charges (DSIC):

Arizona Water Company

I have assisted in the preparation of rate of return studies on behalf of the following clients:

Algonquin Gas Transmission Company
Anadarko Petroleum Corporation
Arizona Water Company
Arkansas-Louisiana Gas Company
Arkansas Western Gas Company
Artesian Water Company
Associated Natural Gas Company
Atlantic City Electric Company
Bridgeport-Hydraulic Company
Cambridge Electric Light Company

Carolina Power & Light Company
Citizens Gas and Coke Utility
City of Vernon, CA
Columbia Gas/Gulf Transmission Cos.
Commonwealth Electric Company
Commonwealth Telephone Company
Conestoga Telephone & Telegraph Co.
Connecticut Natural Gas Corporation
Consolidated Gas Transmission
Company

Consumers Power Company
CWS Systems, Inc.
Delmarva Power & Light Company
East Honolulu Community Services, Inc.
Equitable Gas Company
Equitrans, Inc.
Fairbanks Natural Gas, LLC
Florida Power & Light Company
Gary Hobart Water Company
Gasco, Inc.
Great Lakes Gas Transmission L.P.
GTE Arkansas, Inc.
GTE California, Inc.
GTE Florida, Inc.
GTE Hawaiian Telephone
GTE North, Inc.
GTE Northwest, Inc.
GTE Southwest, Inc.
Hawaiian Electric Company
Hawaiian Electric Light Company
IES Utilities Inc.
Illinois Power Company
Interstate Power Company
Interstate Power & Light Co.
Iowa Electric Light and Power Company
Iowa Southern Utilities Company
Kentucky-West Virginia Gas Company
Lockhart Power Company
Middlesex Water Company
Milwaukee Metropolitan Sewer District
Mountaineer Gas Company
National Fuel Gas Distribution Corp.
National Fuel Gas Supply Corp.
Newco Waste Systems of NJ, Inc.
New Jersey Natural Gas Company
New Jersey-American Water Company
New York-American Water Company
North Carolina Natural Gas Corp.
Northumbrian Water Company
Ohio-American Water Company
Oklahoma Natural Gas Company
Orange and Rockland Utilities
Paiute Pipeline Company
PECO Energy Company
Penn Estates Utilities, Inc.
Penn-York Energy Corporation
Pennsylvania-American Water Co.
PG Energy Inc.
Philadelphia Electric Company
Providence Gas Company

South Carolina Pipeline Company
Southwest Gas Corporation
Stamford Water Company
Tesoro Alaska Petroleum Company
Tesoro Refining & Marketing Co.
United Telephone of New Jersey
United Utility Companies
United Water Arkansas, Inc.
United Water Delaware, Inc.
United Water Idaho, Inc.
United Water Indiana, Inc.
United Water New Jersey, Inc.
United Water New York, Inc.
United Water Pennsylvania, Inc.

United Water Virginia, Inc.
United Water West Lafayette, Inc.
Utilities, Inc. of Pennsylvania
Utilities, Inc. - Westgate
Vista-United Telecommunications Corp.
Washington Gas Light Company
Washington Natural Gas Company
Washington Water Power Corporation
Waste Management of New Jersey –
Transfer Station A
Wellsboro Electric Company
Western Reserve Telephone Company
Western Utilities, Inc.
Wisconsin Power and Light Company

EDUCATION:

1973 – Clark University – B.A. – Honors in Economics (Concentration: Econometrics and

Regional/International Economics)

1991 – Rutgers University – M.B.A. – High Honors (Concentration: Corporate Finance)

PROFESSIONAL AFFILIATIONS:

Advisory Council – Financial Research Institute – University of Missouri – Robert J. Trulasko, Sr. School of Business

Edison Electric Institute – Cost of Capital Working Group

National Association of Water Companies – Member of the Finance/Accounting/Taxation and Rates and

Regulation Committees

Society of Utility and Regulatory Financial Analysts

Member, Board of Directors – 2010-2014

President – 2006-2008 and 2008-2010

Secretary/Treasurer – 2004-2006

American Finance Association

Financial Management Association

SPEAKING ENGAGEMENTS:

“Leadership in the Financial Services Sector”, Guest Professor – Cost of Capital, Business Leader Development Program, Rutgers University School of Business, February 20, 2015, Camden, NJ.

“ROE: Trends & Analysis”, American Gas Association, AGA Mini-Forum for the Financial Analysts Community & Finance Committee Meeting, September 11, 2014, The Princeton Club, New York, NY.

Guest Professor, “Measuring Risk”, Asset Supervision and Administration Commission of the State Council of the Peoples’ Republic of China, Rutgers School of Business, July 21, 2014, New Brunswick, NJ.

Instructor, "Cost of Capital 101", EPCOR Water America, Inc., Regulatory Management Team, June 9, 2014, Phoenix, AZ.

Moderator: Society of Utility Financial Analysts: 46th Financial Forum – "The Rating Agencies' Perspectives: Regulatory Mechanisms and the Regulatory Compact", April 22-25, 2014, Indianapolis, IN.

"The Return on Equity Debate: Its Impact on Budgeting and Investment and Wall Street's View of Risk", National Association of Water Companies – 2014 Indiana Chapter Water Summit, March 13, 2014, Indianapolis, IN.

"Regulatory Training in Financing, Planning, Strategies and Accounting Issues for Publicly- and Privately-Owned Water and Wastewater Utilities", New Mexico State University Center for Public Utilities, October 13-18, 2013, Instructor (Cost of Capital).

"Regulated Utilities – Access to Capital", (panelist) - Innovation: Changing the Future of Energy, 2013 Deloitte Energy Conference, Deloitte Center for Energy Solutions, May 22, 2013, Washington, DC.

"Comparative Evaluation of the Predictive Risk Premium Model, the Discounted Cash Flow Model and the Capital Asset Pricing Model for Estimating the Cost of Common Equity", (co-presenter with Richard A. Michelfelder, Ph.D., Rutgers University) – Advanced Workshop in Regulation and Competition, 32nd Annual Eastern Conference of the Center for Research in Regulated Industries (CRRl), May 17, 2013, Rutgers University, Shawnee on the Delaware, PA.

"Decoupling: Impact on the Risk and Cost of Common Equity of Public Utility Stocks", before the Society of Utility and Regulatory Financial Analysts: 45th Financial Forum, April 17-18, 2013, Indianapolis, IN.

"Issues Surrounding the Determination of the Allowed Rate of Return", before the Staff Subcommittee on Electricity of the National Association of Regulatory Utility Commissioners, Winter 2013 Committee Meetings, February 3, 2013, Washington, DC.

"Leadership in the Financial Services Sector", Guest Professor – Cost of Capital, Business Leader Development Program, Rutgers University School of Business, February 1, 2013, Camden, NJ.

"Analyst Training in the Power and Gas Sectors", SNL Center for Financial Education, Downtown Conference Center at Pace University, New York City, December 12, 2012, Instructor (Financial Statement Analysis).

"Regulatory Training in Financing Planning, Strategies and Accounting Issues for Publicly and Privately Owned Water and Wastewater Utilities", New Mexico State University Center for Public Utilities, October 14-19, 2012, Instructor (Cost of Financial

Capital).

“Application of a New Risk Premium Model for Estimating the Cost of Common Equity”, Co-Presenter with Dylan W. D’Ascendis, CRRA, AUS Consultants, Edison Electric Institute Cost of Capital Working Group, October 3, 2012, Webinar.

“Application of a New Risk Premium Model for Estimating the Cost of Common Equity”, Co-Presenter with Dylan W. D’Ascendis, CRRA, AUS Consultants, Staff Subcommittee on Accounting and Finance of the National Association of Regulatory Commissioners, September 10, 2012, St. Paul, MN.

“Analyst Training in the Power and Gas Sectors”, SNL Center for Financial Education, Downtown Conference Center at Pace University, New York City, August 7, 2012, Instructor (Financial Statement Analysis).

“Advanced Regulatory Training in Financing Planning, Strategies and Accounting Issues for Publicly and Privately Owned Water and Wastewater Utilities”, New Mexico State University Center for Public Utilities, May 13-17, 2012, Instructor (Cost of Financial Capital).

“A New Approach for Estimating the Equity Risk Premium Applied to Public Utilities”, before the Finance and Regulatory Committees of the National Association of Water Companies, March 29, 2012, Telephonic Conference.

“A New Approach for Estimating the Equity Risk Premium Applied to Public Utilities”, (co-presenter with Frank J. Hanley, Principal and Director, AUS Consultants) before the Water Committee of the National Association of Regulatory Utility Commissioners’ Winter Committee Meetings, February 7, 2012, Washington, DC.

“A New Approach for Estimating the Equity Risk Premium Applied to Public Utilities”, (co-presenter with Richard A. Michelfelder, Ph.D., Rutgers University and Frank J. Hanley, Principal and Director, AUS Consultants) before the Wall Street Utility Group, December 19, 2011, New York City, NY.

“Advanced Cost and Finance Issues for Water”, (co-presenter with Gary D. Shambaugh, Principal & Director, AUS Consultants), 2011 Advanced Regulatory Studies Program – Ratemaking, Accounting and Economics, September 29, 2011, Kellogg Center at Michigan State University – Institute for Public Utilities, East Lansing, MI.

“Public Utility Betas and the Cost of Capital”, (co-presenter with Richard A. Michelfelder, Ph.D., Rutgers University) – Advanced Workshop in Regulation and Competition, 30th Annual Eastern Conference of the Center for Research in Regulated Industries (CRRI), May 20, 2011, Rutgers University, Skytop, PA.

Moderator: Society of Utility and Regulatory Financial Analysts: 43rd Financial Forum – “Impact of Cost Recovery Mechanisms on the Perception of Public Utility Risk”, April 14-

15, 2011, Washington, DC.

“A New Approach for Estimating the Equity Risk Premium for Public Utilities”, (co-presenter with Richard A. Michelfelder, Ph.D., Rutgers University) – Hot Topic Hotline Webinar, December 3, 2010, Financial Research Institute of the University of Missouri.

“A New Approach for Estimating the Equity Risk Premium for Public Utilities”, (co-presenter with Richard A. Michelfelder, Ph.D., Rutgers University) before the Indiana Utility Regulatory Commission Cost of Capital Task Force, September 28, 2010, Indianapolis, IN

Tomorrow’s Cost of Capital: Cost of Capital Issues 2010, Deloitte Center for Energy Solutions, 2010 Deloitte Energy Conference, “Changing the Great Game: Climate, Customers and Capital”, June 7-8, 2010, Washington, DC.

“A New Approach for Estimating the Equity Risk Premium for Public Utilities”, (co-presenter with Richard A. Michelfelder, Ph.D., Rutgers University) – Advanced Workshop in Regulation and Competition, 29th Annual Eastern Conference of the Center for Research in Regulated Industries (CRRI), May 20, 2010, Rutgers University, Skytop, PA

Moderator: Society of Utility and Regulatory Financial Analysts: 42nd Financial Forum – “The Changing Economic and Capital Market Environment and the Utility Industry”, April 29-30, 2010, Washington, DC

“A New Model for Estimating the Equity Risk Premium for Public Utilities” (co-presenter with Richard A. Michelfelder, Ph.D., Rutgers University) – Spring 2010 Meeting of the Staff Subcommittee on Accounting and Finance of the National Association of Regulatory Utility Commissioners, March 17, 2010, Charleston, SC

“New Approach to Estimating the Cost of Common Equity Capital for Public Utilities” (co-presenter with Richard A. Michelfelder, Ph.D., Rutgers University) - Advanced Workshop in Regulation and Competition, 28th Annual Eastern Conference of the Center for Research in Regulated Industries (CRRI), May 14, 2009, Rutgers University, Skytop, PA

Moderator: Society of Utility and Regulatory Financial Analysts: 41st Financial Forum – “Estimating the Cost of Capital in Today’s Economic and Capital Market Environment”, April 16-17, 2009, Washington, DC

“Water Utility Financing: Where Does All That Cash Come From?”, AWWA Pre-Conference Workshop: Water Utility Ratemaking, March 25, 2008, Atlantic City, NJ

PUBLICATIONS:

Contributor: The Lawyer's Guide to the Cost of Capital: Understanding Risk and Return for Valuing Businesses and Other Investments, Shannon Pratt and Roger Grabowski, American Bar Association, 2014.

"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, Dylan W. D'Ascendis, and Frank J. Hanley, The Electricity Journal, May, 2013.

"A New Approach for Estimating the Equity Risk Premium for Public Utilities", co-authored with Frank J. Hanley and Richard A. Michelfelder, Ph.D., Rutgers University, The Journal of Regulatory Economics (December 2011), 40:261-278.

"Comparable Earnings: New Life for Old Precept" co-authored with Frank J. Hanley, Financial Quarterly Review, (American Gas Association), Summer 1994.

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Attorneys for the Applicant

IN THE MATTER OF THE APPLICATION
OF UNITED WATER IDAHO INC. FOR
AUTHORITY TO INCREASE ITS RATES
AND CHARGES FOR WATER SERVICE IN
THE STATE OF IDAHO

Case No. UWI-W-15-01

BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

EXHIBIT NO. 1

TO ACCOMPANY THE

DIRECT TESTIMONY OF PAULINE M. AHERN, CRRA

United Water Idaho Inc.
Table of Contents
to Exhibit No. 1
of Pauline M. Ahern, CRRA

	<u>Schedule</u>
Summary of Cost of Capital and Fair Rate of Return	(PMA-1)
Capital Intensity and Depreciation Rates for United Water Idaho Inc. and the Proxy Group of Nine Water Companies	(PMA-2)
Financial Profile of the Proxy Group of Nine Water Companies	(PMA-3)
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model	(PMA-4)
Current Institutional Holdings	(PMA-5)
Indicated Common Equity Cost Rate Using the Risk Premium Model	(PMA-6)
Indicated Common Equity Cost Rate Using the Capital Asset Pricing Model	(PMA-7)
Basis of selection for the Non-Price Regulate Companies Comparable in Total Risk to the Proxy Group of Eight Water Companies	(PMA-8)
Cost of Common Equity Models Applied to the Comparable Risk Non-Price Regulated Companies	(PMA-9)
Estimated Market Capitalization for the United Water Idaho Inc. and the Proxy Group of Nine Water Companies	(PMA-10)

United Water Idaho Inc.
Summary of Cost of Capital and Fair Rate of Return
Based upon the Actual Capital Structure of United Waterworks, Inc. at December 31, 2014

<u>Type Of Capital</u>	<u>Ratios (1)</u>	<u>Cost Rate</u>	<u>Weighted Cost Rate</u>
Long-Term Debt	44.70%	6.03% (1)	2.70%
Common Equity	<u>55.30%</u>	10.40% (2)	<u>5.75%</u>
Total	<u><u>100.00%</u></u>		<u><u>8.45%</u></u>

Notes:

- (1) Company provided.
- (2) From page 2 of this Schedule.

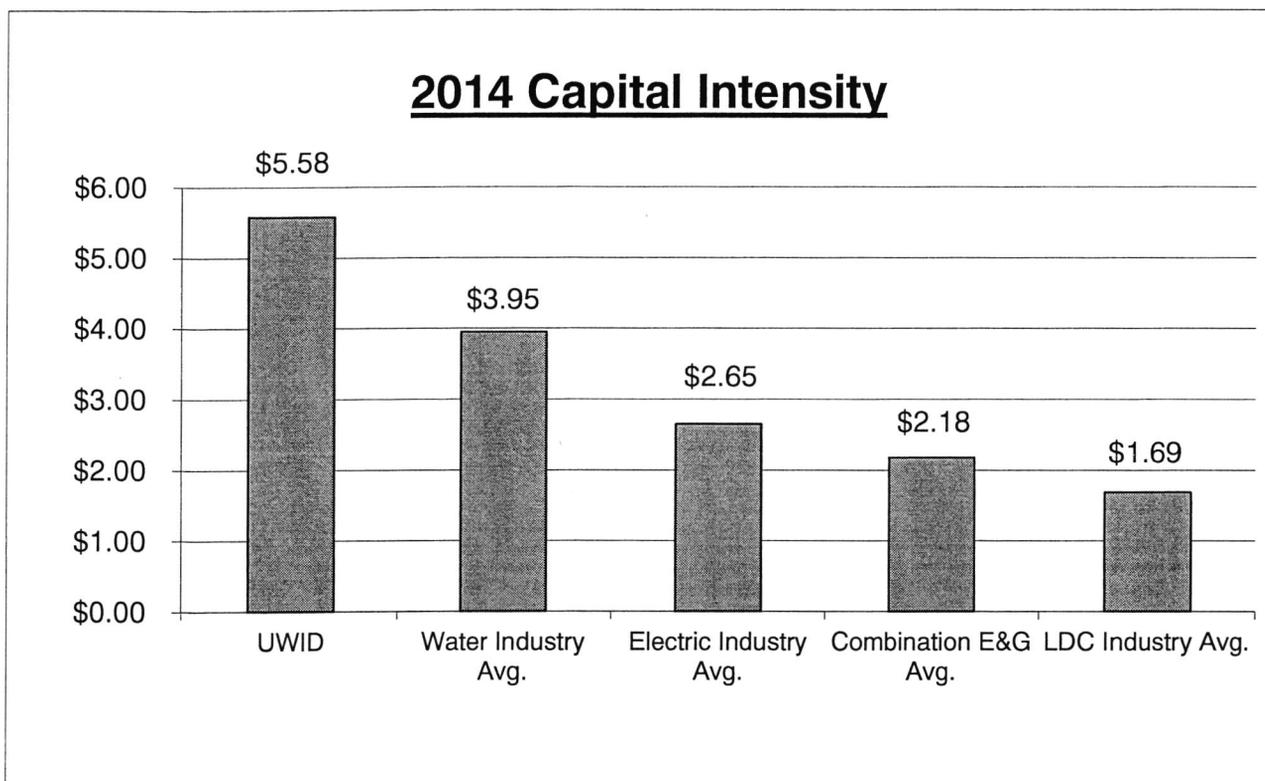
United Water Idaho Inc.
Brief Summary of Common Equity Cost Rate

<u>Line No.</u>	<u>Principal Methods</u>	<u>Proxy Group of Eight Water Companies</u>
1.	Discounted Cash Flow Model (DCF) (1)	8.54 %
2.	Risk Premium Model (RPM) (2)	10.72
3.	Capital Asset Pricing Model (CAPM) (3)	9.35
4.	Market Models Applied to Comparable Risk, Non-Price Regulated Companies (4)	<u>10.43</u>
5.	Indicated Common Equity Cost Rate before Adjustment for Business Risks	9.83 %
6.	Size Adjustment (5)	<u>0.55</u>
7.	Indicated Common Equity Cost Rate	<u><u>10.38</u></u> %
8.	Recommended Common Equity Cost Rate	<u><u>10.40</u></u> %

- Notes: (1) From Schedule (PMA-4).
(2) From page 1 of Schedule (PMA-6).
(3) From page 1 of Schedule (PMA-7).
(4) From page 1 of Schedule (PMA-9).
(5) Business risk adjustment to reflect United Water Idaho Inc.'s greater business risk due to its small size relative to the proxy group as detailed in Ms. Ahern's accompanying direct testimony.

United Water Idaho Inc.
 2014 Capital Intensity of United Water Idaho Inc. and
 AUS Utility Reports Utility Companies Industry Averages

	Average Net Plant (\$ mill)	Total Operating Revenue (\$ mill)	Capital Intensity (\$)	Capital Intensity United Water Idaho Inc. v. Other Industries (times)
United Water Idaho Inc.	\$ 255.33	\$ 45.74	\$ 5.58	--
Water Industry Average	\$ 2,411.70	\$ 611.15	\$ 3.95	141.27%
Electric Industry Average	\$ 17,004.84	\$ 6,422.08	\$ 2.65	210.57%
Combination Elec. & Gas Industry Average	\$ 16,109.32	\$ 7,385.21	\$ 2.18	255.96%
Gas Distribution Average	\$ 3,842.72	\$ 2,271.59	\$ 1.69	330.18%



Notes:

Capital Intensity is equal to Net Plant divided by Total Operating Revenue.

Source of Information:

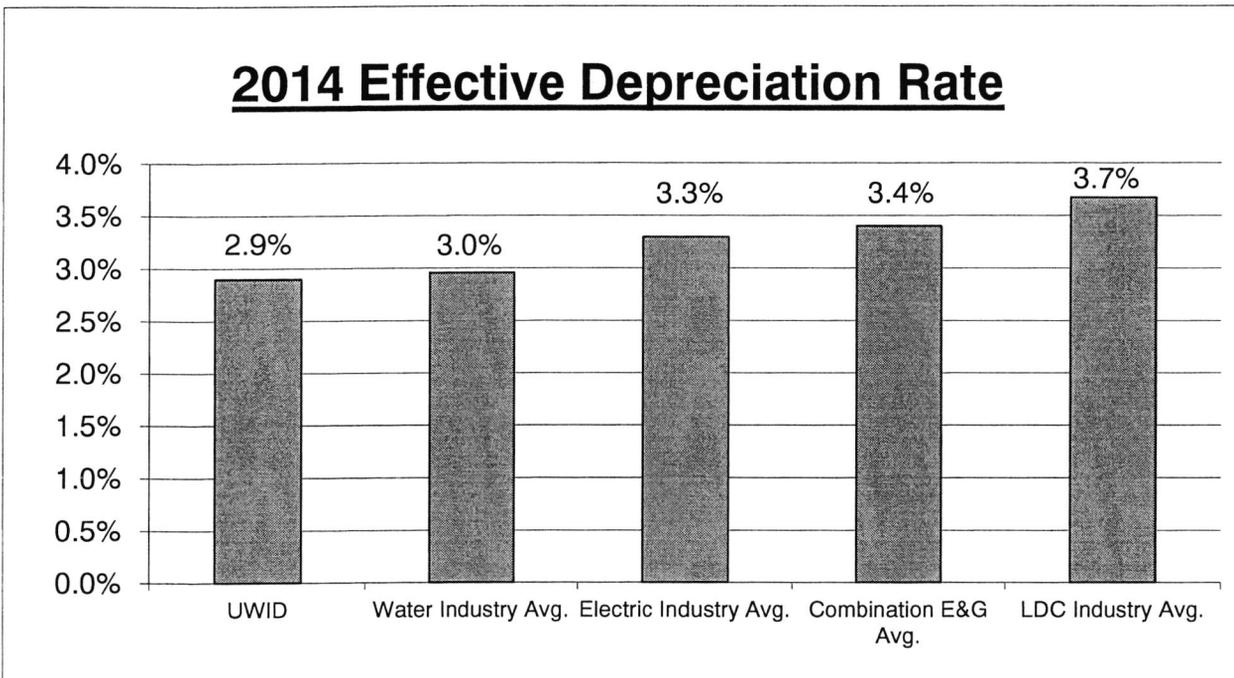
EDGAR Online's I-Metrix Database
 Company Annual Forms 10-K

AUS Utility Reports - April 2015
 Published By AUS Consultants

Unied Water Idaho Inc. Annual Report to the Idaho Public Utilities Commission for the year ended December 31, 2014.

United Water Idaho Inc.
 2014 Depreciation Rate of United Water Idaho Inc. and
AUS Utility Reports Utility Companies Industry Averages

	Depreciation Depletion & Amort. Expense (\$ mill)	Average Total Gross Plant Less CWIP (\$ mill)	Depreciation Rate (%)	Depreciation Rate United Water Idaho Inc. v. Other Industries (times)
United Water Idaho Inc.	\$ 8.53	\$ 294.39	2.9%	--
Water Industry Average	\$ 80.97	\$ 2,739.56	3.0%	96.67%
Electric Industry Average	\$ 727.38	\$ 22,063.71	3.3%	87.88%
Combination Elec. & Gas Industry Average	\$ 756.74	\$ 22,241.95	3.4%	85.29%
LDC Gas Distribution Industry Average	\$ 182.93	\$ 4,979.82	3.7%	78.38%



Notes:

Effective Depreciation Rate is equal to Depreciation, Depletion and Amortization Expense divided by average beginning and ending year's Gross Plant minus Construction Work in Progress.

Source of Information:

EDGAR Online's I-Metrix Database
 Company Annual Forms 10-K

AUS Utility Report - April 2015
 Published by AUS Consultants

United Water Idaho Inc. Annual Report to the Idaho Public Utilities Commission for the year ended December 31, 2014.

Proxy Group of Eight Water Companies
 CAPITALIZATION AND FINANCIAL STATISTICS (1)
 2010 - 2014, Inclusive

	2014	2013	2012	2011	2010	
	(MILLIONS OF DOLLARS)					
<u>CAPITALIZATION STATISTICS</u>						
<u>AMOUNT OF CAPITAL EMPLOYED</u>						
TOTAL PERMANENT CAPITAL	\$2,156.407	\$2,058.747	\$1,998.358	\$1,926.369	\$1,901.851	
SHORT-TERM DEBT	<u>\$72.459</u>	<u>\$95.589</u>	<u>\$60.594</u>	<u>\$89.698</u>	<u>\$56.420</u>	
TOTAL CAPITAL EMPLOYED	<u>\$2,228.866</u>	<u>\$2,154.336</u>	<u>\$2,058.952</u>	<u>\$2,016.067</u>	<u>\$1,958.271</u>	
<u>INDICATED AVERAGE CAPITAL COST RATES (2)</u>						
TOTAL DEBT	5.09 %	5.19 %	5.36 %	5.32 %	5.54 %	
PREFERRED STOCK	5.30 %	5.51 %	5.53 %	5.53 %	5.54 %	
<u>CAPITAL STRUCTURE RATIOS</u>						
						<u>5 YEAR</u>
						<u>AVERAGE</u>
<u>BASED ON TOTAL PERMANENT CAPITAL:</u>						
LONG-TERM DEBT	45.71 %	46.24 %	49.32 %	50.91 %	50.73 %	48.58 %
PREFERRED STOCK	0.13	0.16	0.18	0.21	0.22	0.18
COMMON EQUITY	<u>54.16</u>	<u>53.60</u>	<u>50.50</u>	<u>48.88</u>	<u>49.05</u>	<u>51.24</u>
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	47.00 %	47.77 %	50.87 %	52.68 %	52.82 %	50.23 %
PREFERRED STOCK	0.13	0.15	0.17	0.19	0.20	0.17
COMMON EQUITY	<u>52.87</u>	<u>52.08</u>	<u>48.96</u>	<u>47.13</u>	<u>46.98</u>	<u>49.60</u>
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	5.44 %	4.84 %	5.47 %	5.19 %	5.18 %	5.22 %
MARKET / AVERAGE BOOK RATIO	212.84	206.33	187.65	181.94	181.79	194.11
DIVIDEND YIELD	2.81	3.07	3.60	3.97	4.22	3.53
DIVIDEND PAYOUT RATIO	52.49	58.37	60.45	64.89	65.69	60.38
<u>RATE OF RETURN ON AVERAGE BOOK COMMON EQUITY</u>	11.38 %	10.08 %	10.12 %	9.30 %	9.29 %	10.03 %
<u>TOTAL DEBT / EBITDA (3)</u>	3.74 X	3.65 X	3.83 X	4.30 X	4.55 X	4.01 X
<u>FUNDS FROM OPERATIONS / TOTAL DEBT (4)</u>	25.83 %	22.91 %	20.95 %	19.26 %	17.60 %	21.31 %
<u>TOTAL DEBT / TOTAL CAPITAL</u>	47.00 %	47.77 %	50.87 %	52.68 %	52.82 %	50.23 %

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 Eight Water Companies
2009 - 2013, Inclusive

	<u>2014</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2010</u>	<u>5 YEAR AVERAGE</u>
<u>American States Water Co.</u>						
Long-Term Debt	39.15 %	40.30 %	42.49 %	45.46 %	44.30 %	42.34 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	60.85	59.70	57.51	54.54	55.70	57.66
Total Capital	<u>100.00 %</u>					
<u>American Water Works Co., Inc.</u>						
Long-Term Debt	52.70 %	52.42 %	54.30 %	55.72 %	56.73 %	54.37 %
Preferred Stock	0.15	0.17	0.21	0.27	0.29	0.22
Common Equity	47.15	47.41	45.49	44.01	42.98	45.41
Total Capital	<u>100.00 %</u>					
<u>Aqua America, Inc.</u>						
Long-Term Debt	49.45 %	50.32 %	53.41 %	54.11 %	57.05 %	52.87 %
Preferred Stock	0.00	0.01	0.01	0.02	0.02	0.01
Common Equity	50.55	49.67	46.58	45.87	42.93	47.12
Total Capital	<u>100.00 %</u>					
<u>California Water Service Group</u>						
Long-Term Debt	40.46 %	42.03 %	50.39 %	52.04 %	52.51 %	47.49 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	59.54	57.97	49.61	47.96	47.49	52.51
Total Capital	<u>100.00 %</u>					
<u>Connecticut Water Service, Inc.</u>						
Long-Term Debt	45.91 %	47.34 %	49.03 %	53.05 %	49.32 %	48.93 %
Preferred Stock	0.20	0.20	0.21	0.30	0.34	0.25
Common Equity	53.90	52.46	50.76	46.65	50.34	50.82
Total Capital	<u>100.01 %</u>	<u>100.00 %</u>				
<u>Middlesex Water Company</u>						
Long-Term Debt	41.54 %	41.36 %	43.53 %	43.12 %	43.91 %	42.69 %
Preferred Stock	0.71	0.88	1.02	1.06	1.07	0.95
Common Equity	57.75	57.76	55.45	55.82	55.02	56.36
Total Capital	<u>100.00 %</u>					
<u>SIW Corporation</u>						
Long-Term Debt	51.66 %	51.09 %	55.39 %	56.63 %	53.79 %	53.71 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	48.34	48.91	44.61	43.37	46.21	46.29
Total Capital	<u>100.00 %</u>					
<u>York Water Company</u>						
Long-Term Debt	44.81 %	45.07 %	45.98 %	47.16 %	48.28 %	46.26 %
Preferred Stock	0.00	0.00	0.00	0.00	0.00	0.00
Common Equity	55.19	54.93	54.02	52.84	51.72	53.74
Total Capital	<u>100.00 %</u>					
<u>Proxy Group of Eight Water Companies</u>						
Long-Term Debt	45.71 %	46.24 %	49.32 %	50.91 %	50.73 %	48.58 %
Preferred Stock	0.13	0.16	0.18	0.21	0.22	0.18
Common Equity	54.16	53.60	50.50	48.88	49.05	51.24
Total Capital	<u>100.00 %</u>					

Source of Information
Annual Forms 10-K

United Water Idaho Inc.
Indicated Common Equity Cost Rate Using the Discounted Cash Flow Model for
the Proxy Group of Eight Water Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Eight Water Companies	Average Dividend Yield (1)	Value Line Projected Five Year Growth in EPS (2)	Reuters Mean Consensus Projected Five Year Growth Rate in EPS	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth in EPS (3)	Adjusted Dividend Yield (4)	Indicated Common Equity Cost Rate (5)
American States Water Co.	2.12 %	6.50 %	3.00 %	3.00 %	3.00 %	3.88 %	2.16 %	6.04 %
American Water Works Co., Inc.	2.28	7.50	7.83	7.60	7.83	7.69	2.37	10.06
Aqua America, Inc.	2.43	8.50	4.50	5.30	4.50	5.70	2.50	8.20
California Water Service Group	2.65	7.50	5.00	5.00	5.00	5.63	2.72	8.35
Connecticut Water Service, Inc.	2.78	7.00	5.00	5.00	5.00	5.50	2.86	8.36
Middlesex Water Company	3.42	5.00	NA	NA	2.70	3.85	3.49	7.34
SJW Corporation	2.30	7.00	NA	NA	14.00	10.50	2.42	12.92
York Water Company	2.48	7.00	NA	NA	4.90	5.95	2.55	8.50
							Average	<u>8.72 %</u>
							Median	<u>8.36 %</u>
							Average of Mean and Median	<u>8.54 %</u>

NA= Not Available
NMF = Not Meaningful Figure

Notes:

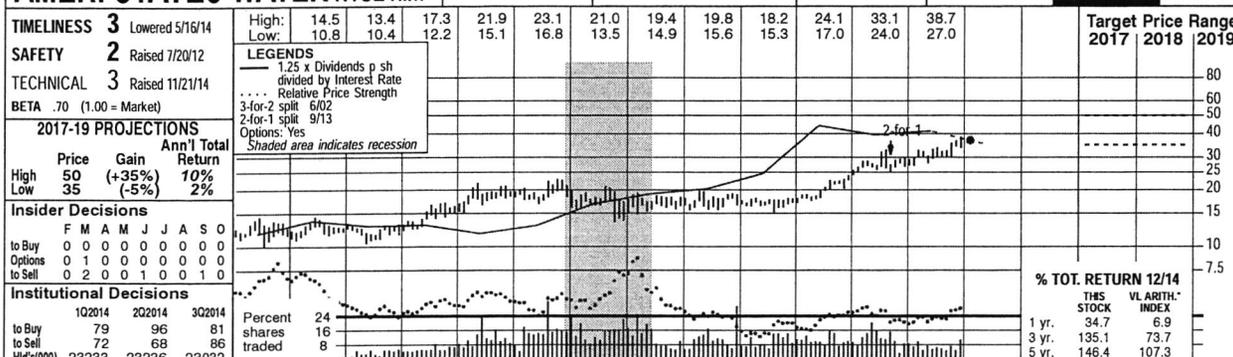
- (1) Indicated dividend at 03/31/2015 divided by the average closing price of the last 60 trading days ending 03/31/2015 for each company.
- (2) From pages 2 through 10 of this Schedule.
- (3) Average of columns 2 through 5 excluding negative growth rates.
- (4) This reflects a growth rate component equal to one-half the conclusion of growth rate (from column 6) x column 1 to reflect the periodic payment of dividends (Gordon Model) as opposed to the continuous payment. Thus, for American States Water Co., $2.12\% \times (1 + (1/2 \times 3.88\%)) = 2.16\%$.
- (5) Column 6 + column 7.

Source of Information:

Value Line Investment Survey
www.reuters.com Downloaded on 03/31/2015
www.zacks.com Downloaded on 03/31/2015
www.yahoo.com Downloaded on 03/31/2015

AMER. STATES WATER NYSE-AWR

RECENT PRICE **36.97** P/E RATIO **23.4** (Trailing: 24.5 Median: 21.0) RELATIVE P/E RATIO **1.29** DIV'D YLD **2.4%** VALUE LINE



1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC	17-19
5.51	6.45	6.08	6.53	6.89	6.99	6.81	7.03	7.88	8.75	9.21	9.74	10.71	11.12	12.12	12.19	12.50	13.35	Revenues per sh	15.05
1.02	1.13	1.10	1.26	1.27	1.04	1.11	1.32	1.45	1.65	1.69	1.70	2.11	2.13	2.48	2.65	2.55	2.75	"Cash Flow" per sh	3.35
.54	.60	.64	.67	.67	.39	.53	.66	.67	.81	.78	.81	1.11	1.12	1.41	1.61	1.50	1.60	Earnings per sh ^A	2.00
.42	.43	.43	.43	.44	.44	.44	.45	.46	.48	.50	.51	.52	.55	.64	.76	.83	.90	Div'd Decl'd per sh ^B	1.15
1.56	2.15	1.51	1.59	1.34	1.88	2.51	2.12	1.95	1.45	2.23	2.09	2.12	2.13	1.77	2.52	2.05	2.40	Cap'l Spending per sh	2.40
5.74	5.91	6.37	6.61	7.02	6.98	7.51	7.86	8.32	8.77	8.97	9.70	10.13	10.84	11.80	12.72	13.15	13.05	Book Value per sh	15.25
26.87	26.87	30.24	30.24	30.36	30.42	33.50	33.60	34.10	34.46	34.60	37.06	37.26	37.70	38.53	38.72	38.00	37.50	Common Shs Outst ^C	37.50
15.5	17.1	15.9	16.7	18.3	31.9	29.2	21.9	27.7	24.0	22.6	21.2	15.7	15.4	14.3	17.2	21.0		Avg Ann'l P/E Ratio	21.0
.81	.97	1.03	.86	1.00	1.82	1.23	1.17	1.50	1.27	1.36	1.41	1.00	.97	.91	.97	1.09		Relative P/E Ratio	1.30
5.0%	4.2%	4.2%	3.9%	3.6%	3.5%	3.6%	3.1%	2.5%	2.5%	2.9%	2.9%	3.0%	3.2%	3.1%	2.7%	2.6%		Avg Ann'l Div'd Yield	2.7%

CAPITAL STRUCTURE as of 9/30/14
 Total Debt \$317.1 mill. Due in 5 Yrs \$7.6 mill.
 LT Debt \$310.8 mill. LT Interest \$22.0 mill.
 (LT interest earned: 5.7 x: total interest coverage: 5.4 x) (38% of Cap'l)
 Leases, Uncapitalized: Annual rentals \$2.2 mill.
 Pension Assets-12/13 \$127.5 mill.
 Oblig. \$152.7 mill.
 Pld Stock None.

Common Stock 38,400,038 shs. as of 10/31/14

MARKET CAP: \$1.4 billion (Mid Cap)

CURRENT POSITION	2012	2013	9/30/14
Cash Assets	23.5	38.2	57.9
Other	160.5	153.4	128.7
Current Assets	184.0	191.6	186.6
Accts Payable	40.6	49.8	49.7
Debt Due	3.3	6.3	6.3
Other	49.8	44.8	64.6
Current Liab.	93.7	100.9	120.6
Fix. Chg. Cov.	488%	531%	533%

ANNUAL RATES of change (per sh)	Past 10 Yrs.	Past 5 Yrs.	Est'd '11-'13 to '17-'19
Revenues	5.5%	6.5%	4.0%
"Cash Flow"	7.5%	8.5%	5.5%
Earnings	9.0%	13.0%	6.5%
Dividends	4.0%	6.5%	10.0%
Book Value	5.5%	6.5%	4.5%

Cal-endar	QUARTERLY REVENUES (\$mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2011	94.3	109.8	119.9	95.3	419.3
2012	107.6	114.3	133.5	111.5	466.9
2013	110.6	120.7	130.9	109.9	472.1
2014	101.9	115.6	138.3	119.2	475
2015	110	125	145	120	500

Cal-endar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2011	.19	.34	.42	.17	1.12
2012	.27	.40	.49	.26	1.41
2013	.35	.43	.53	.30	1.61
2014	.28	.39	.54	.29	1.50
2015	.30	.45	.55	.30	1.60

Cal-endar	QUARTERLY DIVIDENDS PAID ^B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2011	.13	.14	.14	.14	.55
2012	.14	.14	.1775	.1775	.64
2013	.1775	.1775	.2025	.2025	.76
2014	.2025	.2025	.213	.213	.83
2015					

BUSINESS: American States Water Co. operates as a holding company. Through its principal subsidiary, Golden State Water Company, it supplies water to more than 250,000 customers in 75 communities in 10 counties. Service areas include the greater metropolitan areas of Los Angeles and Orange Counties. The company also provides electric utility services to nearly 23,250 customers in the city of Big Bear Lake and in areas of San Bernardino County. Sold Chaparral City Water of Arizona (6/11). Has 728 employees. Officers & directors own 2.9% of common stock (4/12 Proxy). Chairman: Lloyd Ross. President & CEO: Robert J. Sprwls, Inc. CA. Addr: 630 East Foothill Boulevard, San Dimas, CA 91773. Tel: 909-394-3600. Internet: www.aswater.com.

Shares of American States Water have surged since our October report. The price of the stock has increased 21%, well above the 4% gain posted by the market averages. The entire water sector has done well, but American States' performance has been especially strong. This is unusual because water utilities are generally considered to be low-Beta, defensive equities. One possibility for American States' stock movement could be that investors are willing to pay a large premium for higher-yielding stocks with good dividend growth prospects. Another is that the company repurchased more of its own shares on the open market (at a very high price). **The attractiveness of the stock has been greatly reduced.** Despite American States being one of the best run water utilities in the country, with very favorable long-term dividend growth prospects, our concern is with the valuation of the equity. True, these shares are ranked to perform in line with the market in the year ahead. However, total return potential through 2017-2019 is now below average. **Meanwhile, the company's earnings may be restrained by its current high**

return on equity. States regulate the upper limit as to what utilities are allowed to earn on the common equity dedicated to the water business. (Please note the calculations on our page can vary significantly from how regulators arrive at their numbers.) Hence, we estimate that American States' share net declined 6% in 2014, to \$1.50, because 2013's results were aided by a one-time recovery of certain expenses. In 2015, we expect earnings per share to recover and rise 6%, to \$1.60.

Nonregulated operations could well be a swing factor in the company's earnings. American States provides water services to nine domestic military bases. Profits from this segment can be uneven, but they carry higher margins than the regulated water business. We estimate that this endeavor accounts for almost 20% of the utility's total earnings. With an estimated 50 to 70 bases expected to privatize their water operations in the next few years, the company may pick up another 15 to 20. This would make our long-term earnings estimates somewhat conservative.

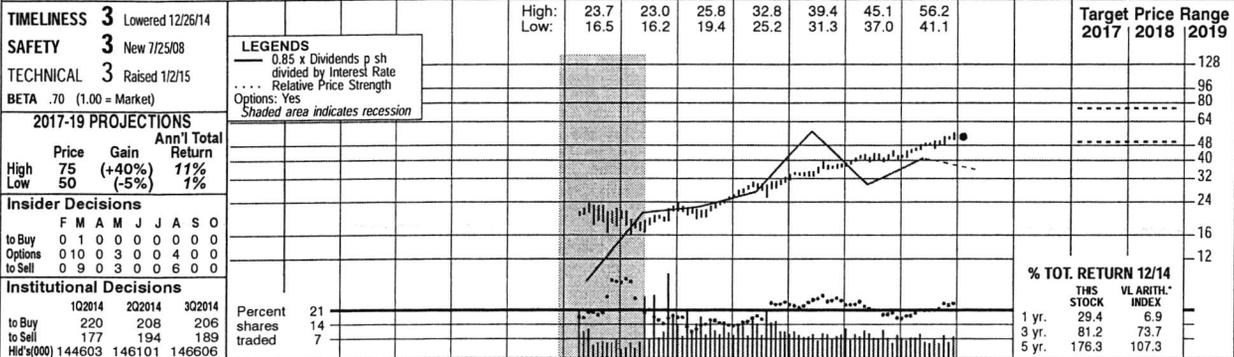
James A. Flood January 16, 2015

(A) Primary earnings. Excludes nonrecurring gains/(losses): '04, 7¢; '05, 13¢; '06, 3¢; '08, (14¢); '10, (23¢) '11, 10¢. Next earnings report due mid February. Quarterly earnings may not add due to rounding.
 (B) Dividends historically paid in early March, June, September, and December. Div'd reinvestment plan available.
 (C) In millions, adjusted for splits.
 Company's Financial Strength A
 Stock's Price Stability 85
 Price Growth Persistence 65
 Earnings Predictability 85

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AMERICAN WATER NYSE-AWK

RECENT PRICE **53.25** P/E RATIO **21.6** (Trailing: 24.5 Median: NMF) RELATIVE P/E RATIO **1.19** DIV'D YLD **2.4%** VALUE LINE



TIMELINESS 3 Lowered 12/26/14
SAFETY 3 New 7/25/08
TECHNICAL 3 Raised 1/2/15
BETA .70 (1.00 = Market)

2017-19 PROJECTIONS

	Price	Gain	Ann'l Return
High	75	(+40%)	11%
Low	50	(-5%)	1%

Insider Decisions

	F	M	A	M	J	A	S	O
To Buy	0	1	0	0	0	0	0	0
Options	0	10	0	3	0	0	4	0
To Sell	0	9	0	3	0	0	6	0

Institutional Decisions

	10/2014	202014	30/2014	Percent
To Buy	220	208	206	21
To Sell	177	194	189	14
Hld's(000)	144603	146101	146606	7

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007 ^E	2008	2009	2010	2011	2012	2013	2014	2015	©VALUE LINE PUB. LLC	17-19
--	--	--	--	--	--	--	--	13.08	13.84	14.61	13.98	15.49	15.18	16.25	16.28	16.90	17.70	Revenues per sh	20.55
--	--	--	--	--	--	--	--	.65	d.47	2.87	2.89	3.56	3.73	4.27	4.36	4.65	5.10	"Cash Flow" per sh	5.80
--	--	--	--	--	--	--	--	d.97	d2.14	1.10	1.25	1.53	1.72	2.11	2.06	2.30	2.60	Earnings per sh ^A	3.05
--	--	--	--	--	--	--	--	--	--	.40	.82	.86	.91	1.21	.84	1.21	1.33	Div'd Decl'd per sh ^B	1.55
--	--	--	--	--	--	--	--	4.31	4.74	6.31	4.50	4.38	5.27	5.25	5.50	5.15	5.55	Cap'l Spending per sh	6.25
--	--	--	--	--	--	--	--	23.86	28.39	25.64	22.91	23.59	24.11	25.11	26.52	27.60	29.00	Book Value per sh ^D	34.55
--	--	--	--	--	--	--	--	160.00	160.00	160.00	174.63	175.00	175.66	176.99	178.25	179.50	181.00	Common Shs Outst'g ^C	190.00
--	--	--	--	--	--	--	--	--	--	18.9	15.6	14.6	16.8	16.7	19.9	20.8	20.8	Avg Ann'l P/E Ratio	20.0
--	--	--	--	--	--	--	--	--	--	1.14	1.04	.93	1.05	1.06	1.12	1.08	1.08	Relative P/E Ratio	1.25
--	--	--	--	--	--	--	--	--	--	1.9%	4.2%	3.8%	3.1%	3.4%	2.0%	2.5%	2.5%	Avg Ann'l Div'd Yield	2.5%

CAPITAL STRUCTURE as of 9/30/14
 Total Debt \$5910.2 mil. Due in 5 Yrs \$1034.0 mil.
 LT Debt \$5540.6 mil. LT Interest \$278.0 mil.
 (Total interest coverage: 3.0x) (53% of Cap'l)

Leases, Uncapitalized: Annual rentals \$15.9 mill.
Pension Assets 12/13 \$1383.6 mill.
 Oblig. \$1494.1 mill.
Pfd Stock \$16.0 mill. Pfd Div'd \$.7 mill

Common Stock 179,309,045 shs.
 as of 10/30/2014

MARKET CAP: \$9.5 billion (Large Cap)

CURRENT POSITION

	2012	2013	9/30/14
Cash Assets	24.4	27.0	74.1
Other	475.0	523.3	682.9
Current Assets	499.4	550.3	757.0
Accts Payable	279.6	264.1	260.7
Debt Due	385.9	644.5	369.6
Other	329.3	326.9	428.6
Current Liab.	994.8	1235.5	1058.9
Fix. Chg. Cov.	297%	307%	305%

BUSINESS: American Water Works Company, Inc. is the largest investor-owned water and wastewater utility in the U.S., providing services to over 14 million people in over 40 states and Canada. (Regulated presence in 16 states.) Nonregulated business assists municipalities and military bases with the maintenance and upkeep as well. Regulated operations made up 89% of 2013 revenues.

New Jersey is its largest market accounting for 24.6% of revenues. Has roughly 6,600 employees. Depreciation rate, 3.1% in '13. BlackRock, Inc., owns 10.5% of shares outstanding. Officers & directors own 2.8%. (3/14 Proxy). Pres. & CEO; Susan Story. Chairman; George Mackenzie. Addr.: 1025 Laurel Oak Road, Voorhees, NJ 08043. Tel.: 856-346-8200. Internet: www.amwater.com.

ANNUAL RATES

	Past 10 Yrs	Past 5 Yrs	Est'd '11-'13 to '17-'19
Revenues	--	3.0%	4.5%
"Cash Flow"	--	32.5%	3.5%
Earnings	--	--	7.5%
Dividends	--	--	8.0%
Book Value	--	--	5.5%

QUARTERLY REVENUES (\$ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	596.7	668.8	760.9	639.8	2666.2
2012	618.5	745.6	831.8	681.0	2876.9
2013	636.1	724.3	829.2	712.3	2901.9
2014	681.9	759.2	846.2	742.7	3030
2015	705	810	890	795	3200

EARNINGS PER SHARE ^A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.23	.42	.73	.34	1.72
2012	.28	.66	.87	.30	2.11
2013	.32	.57	.84	.33	2.06
2014	.38	.61	.87	.44	2.30
2015	.45	.70	1.00	.45	2.60

QUARTERLY DIVIDENDS PAID ^B

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.22	.23	.23	.23	.91
2012	.23	.23	.25	.50	1.21
2013	--	.28	.28	.28	.84
2014	.28	.31	.31	.31	1.21

American Water Works probably just wrapped up a successful 2014. Management estimates that full-year earnings per share will come in at \$2.30-\$2.35. Following last year's slight dip in the bottom line, this represents a nice recovery, especially considering that the utility lost \$0.05 a share due to wet weather, and took a \$0.04-a-share hit as a result of a chemical spill in West Virginia. **The year ahead should be even better.** Share earnings are expected to reach \$2.60, a strong 13% increase over last year. A decent portion of the higher returns will be a result of American Water's continuing drive to improve its operating margins through cost cutting and cost savings from acquisitions. Indeed, the company's expense margin has declined from 41% in 2013 to an estimated 38% last year. Moreover, we are expecting a 1.5% improvement in this ratio in both 2015 and 2016, which should lower the rate to 35% by 2017. **Acquisitions will remain an important part of American Water's long-term plan.** The water utility industry in the U.S. consists mostly of small municipally-

run systems. As vast sums of money are required to finance the modernization of an aging water infrastructure, more cash-strapped local authorities are willing to sell their systems to bigger well-capitalized utilities. And, while most purchases aren't that large, consummating about 30 mergers a year, adds up in the long term. **Shares of American Water Works have been performing well.** Since our October report, the price of the water utility's stock has risen over 10%, compared to an increase of about 4% for the broader market. Making this showing even more impressive is that water utilities are usually considered defensive plays. Overall, the stock price soared 31% in 2014, or about twice that of the market average. **We think that these shares may take a breather.** Despite our favorable outlook for the company, the Timeliness rank of the stock has been lowered one notch to a 3 (Average). Moreover, the positive outlook appears to be fully priced into the equity as its prospects through 2017-2019 are now subpar.

(A) Diluted earnings. Excludes nonrecurring losses: '08, \$4.62; '09, \$2.63; '11, \$0.07. Discontinued operations: '06, (4¢); '11, 3¢; '12, (10¢); '14, 3¢. Next earnings report due early

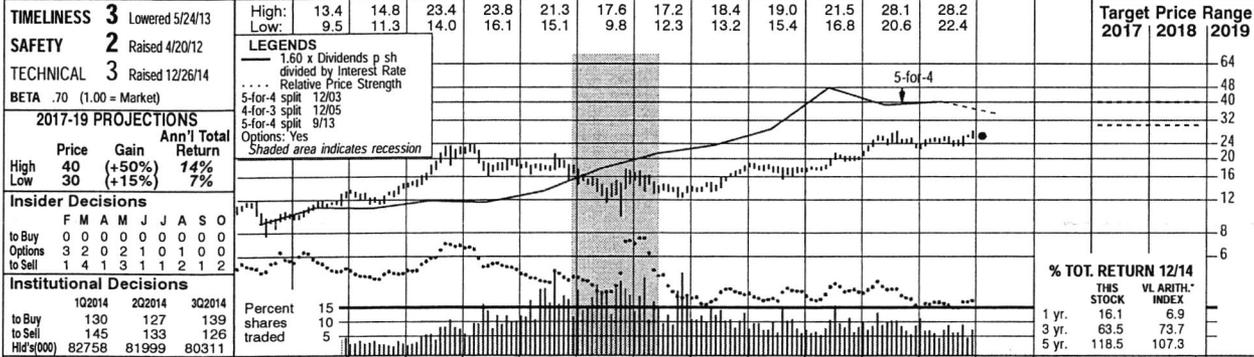
Feb. Quarterly earnings may not sum due to rounding. (B) Dividends paid in March, June, September, and December. (C) Div. reinvestment available. Two payments made in 4th quarter of 2012. (D) In millions. (E) Pro forma numbers for '06 & '07.

Company's Financial Strength	B+
Stock's Price Stability	100
Price Growth Persistence	75
Earnings Predictability	20

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AQUA AMERICA NYSE-WTR

RECENT PRICE **26.35** P/E RATIO **21.3** (Trailing: 22.5 Median: 24.0) RELATIVE P/E RATIO **1.18** DIV'D YLD **2.6%** VALUE LINE



TIMELINESS 3 Lowered 5/24/13
SAFETY 2 Raised 4/20/12
TECHNICAL 3 Raised 12/26/14
BETA .70 (1.00 = Market)

2017-19 PROJECTIONS

Price	Gain	Return
High 40	(+50%)	14%
Low 30	(+15%)	7%

Insider Decisions

F	M	A	M	J	J	A	S	O
0	0	0	0	0	0	0	0	0
to Buy	0	0	0	0	0	0	0	0
Options	3	2	0	2	1	0	1	0
to Sell	1	4	1	3	1	1	2	1

Institutional Decisions

10/2014	2/2014	3/2014
130	127	139
to Buy	145	133
Hld's(000)	82758	81999
		80311

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC 17-19	
1.67	1.93	1.97	2.16	2.28	2.38	2.78	3.08	3.23	3.61	3.71	3.93	4.21	4.10	4.32	4.32	4.50	4.75	Revenues per sh	5.65
.49	.58	.61	.69	.76	.77	.87	.97	1.01	1.10	1.14	1.29	1.42	1.45	1.51	1.82	1.90	2.05	"Cash Flow" per sh	2.90
.32	.33	.37	.41	.43	.46	.51	.57	.56	.57	.58	.62	.72	.83	.87	1.16	1.20	1.30	Earnings per sh ^A	1.55
.20	.22	.23	.24	.26	.28	.29	.32	.35	.38	.41	.44	.47	.50	.54	.58	.63	.69	Div'd Decl'd per sh ^B	.90
.65	.72	.93	.87	.96	1.06	1.23	1.47	1.64	1.43	1.58	1.66	1.89	1.90	1.98	1.73	1.75	1.95	Cap'l Spending per sh	1.95
2.57	2.74	3.08	3.32	3.49	4.27	4.71	5.04	5.57	5.85	6.26	6.50	6.81	7.21	7.90	8.63	8.85	9.05	Book Value per sh	11.00
90.25	133.50	139.78	142.47	141.49	154.31	158.97	161.21	165.41	166.75	169.21	170.61	172.46	173.60	175.43	177.93	176.50	175.00	Common Shs Outst'g ^C	170.00
22.5	21.2	18.2	23.6	23.6	24.5	25.1	31.8	34.7	32.0	24.9	23.1	21.1	21.3	21.9	21.2	20.8		Avg Ann'l P/E Ratio	21.5
1.17	1.21	1.18	1.21	1.29	1.40	1.33	1.69	1.87	1.70	1.50	1.54	1.34	1.34	1.39	1.19	1.08		Relative P/E Ratio	1.35
2.9%	3.0%	3.3%	2.5%	2.5%	2.5%	2.3%	1.8%	1.8%	2.1%	2.8%	3.1%	3.1%	2.8%	2.8%	2.4%	2.5%		Avg Ann'l Div'd Yield	2.6%

CAPITAL STRUCTURE as of 9/30/14
 Total Debt \$1653.6 mill. Due in 5 Yrs \$324.6 mill.
 LT Debt \$1560.0 mill. LT Interest \$70.0 mill.
 (Total interest coverage: 3.9x) (49% of Cap'l)

Pension Assets-12/13 \$232.4 mill.
 Oblig. \$281.2 mill.

Pfd Stock None
 Common Stock 176,633,848 shares as of 10/24/14

MARKET CAP: \$4.7 billion (Mid Cap)

CURRENT POSITION (\$MILL.)

	2012	2013	9/30/14
Cash Assets	5.5	5.1	4.8
Receivables	92.9	95.4	105.7
Inventory (AvgCst)	11.8	11.4	12.6
Other	150.7	59.8	84.4
Current Assets	260.9	171.7	207.5
Accts Payable	55.5	65.8	48.9
Debt Due	125.4	123.0	93.6
Other	93.3	78.1	92.9
Current Liab.	274.2	266.9	235.4
Fix. Chg. Cov.	413%	388%	389%

ANNUAL RATES

	Past 10 Yrs.	Past 5 Yrs.	Est'd '11-'13 to '17-'19
Revenues	6.5%	4.0%	5.0%
"Cash Flow"	8.0%	8.0%	10.5%
Earnings	8.5%	11.0%	8.5%
Dividends	7.5%	7.0%	9.0%
Book Value	8.0%	6.0%	5.5%

QUARTERLY REVENUES (\$ mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	163.6	178.3	197.3	172.7	712.0
2012	164.0	191.7	214.6	187.5	757.8
2013	180.0	195.7	204.3	188.6	768.6
2014	182.7	195.3	210.5	201.5	790
2015	195	210	220	210	835

EARNINGS PER SHARE A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.18	.22	.24	.19	.83
2012	.15	.24	.29	.19	.87
2013	.26	.30	.36	.24	1.16
2014	.24	.31	.38	.27	1.20
2015	.27	.32	.40	.31	1.30

QUARTERLY DIVIDENDS PAID ^B

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.124	.124	.124	.132	.50
2012	.132	.132	.132	.14	.54
2013	.14	.14	.152	.152	.58
2014	.152	.152	.165	.165	.63
2015					

BUSINESS: Aqua America, Inc. is the holding company for water and wastewater utilities that serve approximately three million residents in Pennsylvania, Ohio, North Carolina, Illinois, Texas, New Jersey, Florida, Indiana, and five other states. Acquired AquaSource, 7/03; Consumers Water, 4/99; and others. Water supply revenues '13: residential, 60.3%; commercial, 15.8%; industrial

Aqua America should record solid earnings in 2015. The company probably posted decent results in 2014 as we think earnings per share rose 3.4%, to \$1.20. This figure is much better than it appears, as 2013 was an outstanding year and comparisons with it are very difficult. Fueled by an expanding rate base (on which the utility earns a return), we expect share net to increase a healthy 8%, to \$1.30 a share this year.

Acquisitions will continue to remain a key part of Aqua's strategy. The U.S. water market consists of over 50,000 municipally-run districts, many of which are financially strapped and don't have the required funds to upgrade their antiquated water infrastructure. Some are willing to sell themselves to a well-capitalized utility. Since there are many redundancies in the business, Aqua is able to integrate purchases and improve profitability by reducing costs. An estimated 20 acquisitions were made last year, and we think that will represent the low end of Aqua's long-term merger activity.

Dividend growth prospects are excellent. Over the next three- to five-year pe-

riod, the utility's annual payout will likely be hiked 9% annually, a level well above that of its peers.

Nonregulated operations will probably be affected by declining oil prices. Exploring for oil and gas domestically requires large quantities of water, which are usually shipped to the drilling site by trucks. This is an expensive and cumbersome process. Aqua has simplified the procedure by extending water pipelines right to the rigs. Energy producers are willing to pay high fees for such a service. However, with oil prices having declined by about 50% since last summer, energy exploration could fall substantially if crude prices do not recover.

Income-oriented investors will find much to like about these shares. True, the stock's yield is lower than the industry average. However, buyers typically have to sacrifice more current income to obtain a water utility with such robust dividend growth prospects. Indeed, the equity's capital appreciation and total return potential through 2017-2019 are much higher than others in the group.

James A. Flood
 January 16, 2015

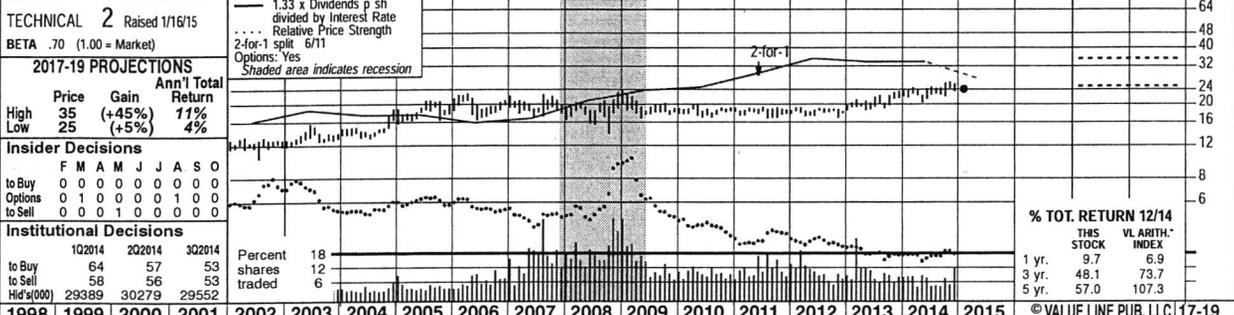
(A) Diluted eqs. Excl. nonrec. gains (losses): '99, (9¢); '00, 2¢; '01, 2¢; '02, 4¢; '03, 3¢; '12, 18¢. Excl. gain from disc. operations: '12, 7¢; '13, 9¢. May not sum due to rounding. Next earnings report due mid February.
 (B) Dividends historically paid in early March, June, Sept. & Dec. ■ Div'd. reinvestment plan available (5% discount).
 (C) In millions, adjusted for stock splits.

Company's Financial Strength A
Stock's Price Stability 100
Price Growth Persistence 60
Earnings Predictability 95

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CALIFORNIA WATER NYSE-CWT

RECENT PRICE **24.08** P/E RATIO **20.1** (Trailing: 22.5 Median: 20.0) RELATIVE P/E RATIO **1.11** DIV'D YLD **2.8%** VALUE LINE



Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
High	7.38	7.98	8.08	8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.23	12.50	13.25
Low	1.30	1.37	1.26	1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.40	2.60
Price	1.37	1.72	1.23	2.04	2.91	2.19	1.87	2.01	2.14	1.84	2.41	2.66	2.97	2.83	3.04	2.58	2.50	2.60
Gain	6.69	6.71	6.45	6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.28	12.54	13.00	13.55
Return	25.24	25.87	30.29	30.36	30.36	33.86	36.73	36.78	41.31	41.33	41.45	41.53	41.67	41.82	41.98	47.74	48.00	48.00
Ann'l Total	17.8	17.8	19.6	27.1	19.8	22.1	20.1	24.9	29.2	26.1	19.8	19.7	20.3	21.3	17.9	20.1	21.3	21.3
High	.93	1.01	1.27	1.39	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.14	1.13	1.11	1.11
Low	4.2%	4.0%	4.3%	4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	3.1%	2.8%	2.8%

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Revenues per sh	7.38	7.98	8.08	8.13	8.67	8.18	8.59	8.72	8.10	8.88	9.90	10.82	11.05	12.00	13.34	12.23	12.50	13.25
"Cash Flow" per sh	1.30	1.37	1.26	1.10	1.32	1.26	1.42	1.52	1.36	1.56	1.86	1.93	1.93	2.07	2.32	2.21	2.40	2.60
Earnings per sh ^A	.73	.77	.66	.47	.63	.61	.73	.74	.67	.75	.95	.98	.91	.86	1.02	1.02	1.10	1.25
Div'd Decl'd per sh ^B	.54	.54	.55	.56	.56	.56	.57	.57	.58	.58	.59	.59	.60	.62	.63	.64	.65	.67
Cap'l Spending per sh	1.37	1.72	1.23	2.04	2.91	2.19	1.87	2.01	2.14	1.84	2.41	2.66	2.97	2.83	3.04	2.58	2.50	2.60
Book Value per sh ^C	6.69	6.71	6.45	6.48	6.56	7.22	7.83	7.90	9.07	9.25	9.72	10.13	10.45	10.76	11.28	12.54	13.00	13.55
Common Shs Outst'g ^D	25.24	25.87	30.29	30.36	30.36	33.86	36.73	36.78	41.31	41.33	41.45	41.53	41.67	41.82	41.98	47.74	48.00	48.00
Avg Ann'l P/E Ratio	17.8	17.8	19.6	27.1	19.8	22.1	20.1	24.9	29.2	26.1	19.8	19.7	20.3	21.3	17.9	20.1	21.3	21.3
Relative P/E Ratio	.93	1.01	1.27	1.39	1.08	1.26	1.06	1.33	1.58	1.39	1.19	1.31	1.29	1.34	1.14	1.13	1.11	1.11
Avg Ann'l Div'd Yield	4.2%	4.0%	4.3%	4.4%	4.5%	4.2%	3.9%	3.1%	2.9%	3.0%	3.1%	3.1%	3.2%	3.4%	3.5%	3.1%	2.8%	2.8%

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Debt	\$491.1	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8
LT Debt	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8	\$422.8
Cap'l Expend	315.6	320.7	334.7	367.1	410.3	449.4	460.4	501.8	560.0	584.1	600	635	635	635	635	635	635	635
Net Profit	26.0	27.2	25.6	31.2	39.8	40.6	37.7	36.1	42.6	47.3	52.5	60.0	60.0	60.0	60.0	60.0	60.0	60.0
Income Tax Rate	39.6%	42.4%	37.4%	39.9%	37.7%	40.3%	39.5%	40.5%	37.5%	30.3%	27.5%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
AFUDC % to Net Profit	3.2%	3.3%	10.6%	8.3%	8.6%	7.6%	4.2%	7.6%	8.0%	4.3%	2.0%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
Long-Term Debt Ratio	48.6%	48.3%	43.5%	42.9%	41.6%	47.1%	52.4%	51.7%	47.8%	41.6%	40.5%	40.5%	40.5%	40.5%	40.5%	40.5%	40.5%	40.5%
Common Equity Ratio	50.8%	51.1%	55.9%	56.6%	58.4%	52.9%	47.6%	48.3%	52.2%	58.4%	59.5%	59.5%	59.5%	59.5%	59.5%	59.5%	59.5%	59.5%
Total Capital (\$mill)	565.9	568.1	670.1	674.9	690.4	794.9	914.7	931.5	1050	1024.9	1050	1095	1095	1095	1095	1095	1095	1095
Net Plant (\$mill)	800.3	862.7	941.5	1010.2	1112.4	1198.1	1294.3	1381.1	1457.1	1515.8	1575	1630	1630	1630	1630	1630	1630	1630
Return on Total Cap'l	6.1%	6.3%	5.2%	5.9%	7.1%	6.5%	5.5%	5.5%	6.3%	6.0%	6.5%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Return on Shr. Equity	8.9%	9.3%	6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.9%	8.5%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Return on Com Equity	9.0%	9.3%	6.8%	8.1%	9.9%	9.6%	8.6%	8.0%	9.0%	7.9%	8.5%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%	9.0%
Retained to Com Eq	2.1%	2.1%	1.0%	1.8%	3.8%	3.8%	3.0%	2.3%	3.4%	3.4%	3.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%
All Div'ds to Net Prof	77%	78%	86%	77%	61%	60%	66%	71%	62%	56%	59%	54%	54%	54%	54%	54%	54%	54%

Previously granted rate relief should help propel California Water Service Group's earnings for the next few years. Utilities in the state are only allowed to file a petition seeking higher tariffs every three years. Hence, the relatively favorable decision allowed by California regulators last summer will have a positive effect on the company's bottom line through 2017. In addition, a major potential regulatory risk has been removed for the next several years. **We are raising our bottom-line estimates for the company, yet again.** Third-quarter earnings came in higher than we expected, even though the recent rate hike was only in effect for part of the quarter. Expectations for the year-ending period are favorable, too. All told, share net should probably reach \$1.10, a 7.4% increase over 2013's uninspiring showing. In 2015, with the rates in effect for the entire year, a 13.6% hike in earnings per share, to \$1.25, is possible. **Dividend growth should accelerate as well.** Over the past five- and ten-year periods, California Water's annual dividend payout averaged a meager 1.0%, and 1.5%, respectively. This rate was significantly below the average of the typical water utility. In the coming year, we are conservatively estimating that there will be a \$0.03 (4.6%) increase. Furthermore, annual hikes through 2017-2019 could be in the 7% range.

Year	2011	2012	2013	2014	2015
Revenues (\$mill) ^E	635	635	635	635	635
Net Profit (\$mill)	75.0	75.0	75.0	75.0	75.0
Income Tax Rate	37.0%	37.0%	37.0%	37.0%	37.0%
AFUDC % to Net Profit	5.0%	5.0%	5.0%	5.0%	5.0%
Long-Term Debt Ratio	40.5%	40.5%	40.5%	40.5%	40.5%
Common Equity Ratio	59.5%	59.5%	59.5%	59.5%	59.5%
Total Capital (\$mill)	1350	1350	1350	1350	1350
Net Plant (\$mill)	1820	1820	1820	1820	1820
Return on Total Cap'l	7.0%	7.0%	7.0%	7.0%	7.0%
Return on Shr. Equity	9.5%	9.5%	9.5%	9.5%	9.5%
Return on Com Equity	9.5%	9.5%	9.5%	9.5%	9.5%
Retained to Com Eq	3.5%	3.5%	3.5%	3.5%	3.5%
All Div'ds to Net Prof	63%	63%	63%	63%	63%

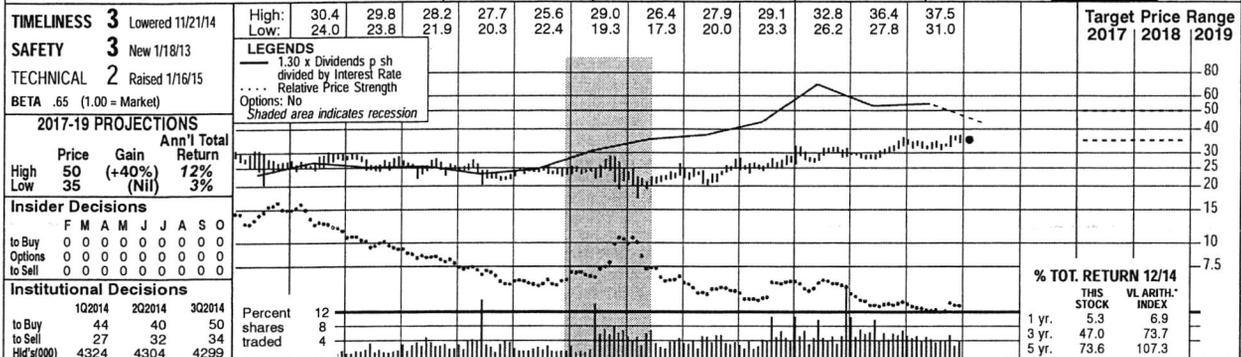
California Water is not being meaningfully impacted by the area's severe drought. State regulators have implemented rules so that water utilities won't be penalized for a decline in water consumption due to conservation measures. Also, future demand should be met with water from the company's own wells along with a dependable secondary source that sells its bulk water. Moreover, any change in the price of water will just be passed along directly to consumers. **These shares do not have much to offer.** Despite a strong balance sheet and solid dividend growth prospects, the recent strong price showing by the equity of California Water has greatly reduced its near-term attraction. Moreover, total return potential through 2017-2019 is below average for a stock followed by *Value Line*.
James A. Flood January 14, 2015

(A) Basic EPS. Excl. nonrecurring gain (loss): '00, (4¢); '01, 2¢; '02, 4¢; '11, 4¢. Next earnings report due mid-February. (B) Dividends historically paid in late Feb., May, Aug., and Nov. (C) Incl. intangible assets. In '13: \$18.2 mill., \$0.38/sh. (D) In millions, adjusted for splits. (E) Excludes non-reg. rev.

Company's Financial Strength		B++
Stock's Price Stability		95
Price Growth Persistence		40
Earnings Predictability		90

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CONNECTICUT WATER NDQ-CTWS



1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC 17-19		
5.58	5.87	5.70	5.93	5.77	5.91	6.04	5.81	5.68	7.05	7.24	6.93	7.65	7.93	9.47	8.29	8.95	9.25	Revenues per sh	12.50	
1.59	1.65	1.73	1.78	1.78	1.89	1.91	1.62	1.52	1.90	1.95	1.93	2.04	2.11	2.64	2.63	2.90	3.10	"Cash Flow" per sh	3.40	
1.02	1.03	1.09	1.13	1.12	1.15	1.16	.88	.81	1.05	1.11	1.19	1.13	1.13	1.53	1.66	1.90	2.00	Earnings per sh ^A	2.15	
.78	.79	.79	.80	.81	.83	.84	.85	.86	.87	.88	.90	.92	.94	.96	.96	.98	1.01	1.05	Div'd Decl'd per sh ^B	1.20
1.12	1.42	1.43	1.86	1.98	1.49	1.58	1.96	1.96	2.24	2.44	3.28	3.06	2.61	2.79	3.02	4.10	4.85	Cap'l Spending per sh ^B	3.00	
8.52	8.61	8.92	9.25	10.06	10.46	10.94	11.52	11.60	11.95	12.23	12.67	13.05	13.50	20.95	17.92	18.85	19.80	Book Value per sh ^D	21.65	
6.80	7.26	7.28	7.65	7.94	7.97	8.04	8.17	8.27	8.38	8.46	8.57	8.68	8.76	8.85	11.04	11.15	11.35	Common Shs Outst'g ^C	12.00	
15.5	18.2	18.2	21.5	24.3	23.5	22.9	28.6	29.0	23.0	22.2	18.4	20.7	23.0	19.4	18.4	17.7	17.7	Avg Ann'l P/E Ratio	20.0	
.81	1.04	1.18	1.10	1.33	1.34	1.21	1.52	1.57	1.22	1.34	1.23	1.32	1.44	1.23	1.03	.92	.92	Relative P/E Ratio	1.25	
4.9%	4.2%	4.0%	3.3%	3.0%	3.0%	3.1%	3.4%	3.6%	3.6%	3.6%	4.1%	3.9%	3.6%	3.2%	3.2%	3.0%	3.0%	Avg Ann'l Div'd Yield	2.8%	

CAPITAL STRUCTURE as of 9/30/14
 Total Debt \$175.6 mill. Due in 5 Yrs \$18.6 mill.
 LT Debt \$173.4 mill. LT Interest \$7.0 mill.
 (Total interest coverage: 4.4x) (45% of Cap'l)

Leases, Uncapitalized: Annual rentals \$ 1 mill.
Pension Assets \$56.8 mill. **Oblig.** \$64.2 mill.

Pfd Stock \$0.8 mill. **Pfd Divd** NMF

Common Stock 11,112,589 shs. as of 10/31/14
MARKET CAP: \$400 million (Small Cap)

CURRENT POSITION 2012 2012 9/30/14 (\$MILL.)

Cash Assets	13.2	18.4	1.6
Accounts Receivable	11.5	12.3	13.0
Other	11.7	16.2	24.7
Current Assets	36.4	46.9	39.3
Accts Payable	10.0	10.8	9.0
Debt Due	3.0	4.1	2.2
Other	2.9	7.8	9.9
Current Liab.	15.9	22.7	21.1
Fix. Chg. Cov.	408%	375%	375%

ANNUAL RATES Past Past Est'd '11-'13 of change (per sh) 10 Yrs. 5 Yrs. to '17-'19

Revenues	4.0%	5.0%	6.5%
"Cash Flow"	3.0%	6.5%	5.5%
Earnings	2.5%	8.0%	7.0%
Dividends	1.5%	2.0%	4.0%
Book Value	6.0%	8.0%	3.5%

QUARTERLY REVENUES (\$mill.)

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	16.0	17.4	20.6	15.4	69.4
2012	18.5	21.3	24.5	19.5	83.8
2013	19.7	22.6	27.6	21.6	91.5
2014	20.3	27.3	29.4	23.0	100
2015	22.0	28.0	32.0	23.0	105

EARNINGS PER SHARE^A

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.26	.37	.39	.11	1.13
2012	.22	.47	.67	.17	1.53
2013	.24	.39	.86	.17	1.66
2014	.27	.67	.76	.20	1.90
2015	.35	.60	.80	.25	2.00

QUARTERLY DIVIDENDS PAID^B

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.233	.233	.238	.238	.942
2012	.238	.238	.2425	.2425	.962
2013	.2425	.2425	.2475	.2475	.98
2014	.2475	.2475	.2575	.2575	1.01
2015					

BUSINESS: Connecticut Water Service, Inc. is a non-operating holding company, whose income is derived from earnings of its wholly-owned subsidiary companies (regulated water utilities). Its largest subsidiary, Connecticut Water, accounted for about 85% of the holding company's net income in 2012, and provides water services to 400,000 people in 55 towns throughout Connecticut and

Connecticut Water Service probably finished up a successful 2014. Thanks to a deal reached in 2013 with Connecticut regulators, the utility agreed to lower customers' bills and delay seeking higher rates in return for being allowed to hold on to an IRS tax refund. In addition, Connecticut Water was able to cut costs by merging the two utilities that it operates in Maine. All told, we think that share net probably rose a robust 14%, to \$1.90.

Bottom-line gains should moderate this year. A recent petition for higher rates in Maine and the ongoing tax benefits should enable share earnings to rise \$0.10, or 5%, in 2015. If not for the difficult comparison with last year, these numbers would be more impressive.

Capital expenditures are expected to rise a sizable 20% in 2015. Like most water utilities, Connecticut Water is in the process of upgrading an antiquated infrastructure. We estimate that about \$46 million was spent on modernizations in 2014. The company has announced plans to increase this total to \$55 million this year.

Connecticut Water's finances should be able to handle the additional capi-

tal spending. Entering 2014's fourth quarter, the company's equity-to-total capital ratio stood at a very healthy 55%. Internally generated funds will probably not be sufficient to cover the capital budget over the next three- to five-year period. Issuance of new debt will be required and the quality of Connecticut's balance sheet may decline somewhat, but it still should remain in relatively good shape.

Two future projects will increase the company's revenues. Pipelines are being extended to include the town of Mansfield and the main campus of the University of Connecticut in Storrs to expand Connecticut Water's service area.

These shares have lost most of their appeal. Like the rest of the sector, the stock of Connecticut Water has outperformed the market by a wide margin since our October report. Hence, the equity is now less attractive on a relative basis. The Timelessness rank has also been dropped a notch to 3 (Average). Moreover, prospects to 2017-2019 are now well below average compared to other stocks in the Value Line universe.

James A. Flood January 16, 2015

(A) Diluted earnings. Next earnings report due early February. Quarterly earnings do not add in '12 due to rounding.
 (B) Dividends historically paid in mid-March.
 (C) In millions, adjusted for split.
 (D) Includes intangibles. In '13: \$31.7 million/\$2.87 a share.

Company's Financial Strength	B+
Stock's Price Stability	90
Price Growth Persistence	50
Earnings Predictability	85

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MIDDLESEX WATER NDQ-MSEX

RECENT PRICE 22.07	P/E RATIO 19.5 (Trailing: 20.1 Median: 21.0)	RELATIVE P/E RATIO 1.08	DIV'D YLD 3.5%	VALUE LINE										
TIMELINESS 3 Lowered 4/11/14	SAFETY 2 New 10/21/11	TECHNICAL 3 Lowered 9/26/14	BETA .70 (1.00 = Market)	2017-19 PROJECTIONS										
High: 21.2	21.8	23.5	20.5	20.2	19.8	17.9	19.3	19.4	19.6	22.5	23.7	Target Price	Range	
Low: 15.8	16.7	17.1	16.5	16.9	12.0	11.6	14.7	16.5	17.5	18.6	19.1	2017	2018	2019
LEGENDS 1.20 x Dividends p sh divided by Interest Rate Relative Price Strength 3-for-2 split 1/02 4-for-3 split 11/03 Options: No Shaded area indicates recession														
Insider Decisions F M A M J J A S O to Buy 0 0 0 2 0 0 0 1 0 Options 0 0 0 0 0 0 0 0 0 to Sell 0 0 0 1 0 0 0 1 0														
Institutional Decisions 10/2014 20/2014 30/2014 to Buy 37 41 32 to Sell 34 34 40 Hld's(000) 6432 6463 6339														

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC 17-19	
4.39	5.35	5.39	5.87	5.98	6.12	6.25	6.44	6.16	6.50	6.79	6.75	6.60	6.50	6.98	7.19	7.30	8.00	Revenues per sh	10.00
1.02	1.19	.99	1.18	1.20	1.15	1.28	1.33	1.33	1.49	1.53	1.40	1.55	1.46	1.56	1.72	1.80	1.90	"Cash Flow" per sh	2.15
.71	.76	.51	.66	.73	.61	.73	.71	.82	.87	.89	.72	.96	.84	.90	1.03	1.10	1.15	Earnings per sh ^A	1.25
.58	.60	.61	.62	.63	.65	.66	.67	.68	.69	.70	.71	.72	.73	.74	.75	.76	.77	Div'd Decl'd per sh ^B	.83
2.68	2.33	1.32	1.25	1.59	1.87	2.54	2.18	2.31	1.66	2.12	1.49	1.90	1.50	1.36	1.26	1.30	2.00	Cap'l Spending per sh	2.00
6.80	6.95	6.98	7.11	7.39	7.60	8.02	8.26	9.52	10.05	10.03	10.33	11.13	11.27	11.48	11.82	12.15	12.30	Book Value per sh ^D	13.25
9.82	10.00	10.11	10.17	10.36	10.48	11.36	11.58	13.17	13.25	13.40	13.52	15.57	15.70	15.82	15.96	16.15	16.25	Common Shs Outst'g ^C	17.00
15.2	17.6	28.7	24.6	23.5	30.0	26.4	27.4	22.7	21.6	19.8	21.0	17.8	21.7	20.8	19.7	19.0	19.0	Avg Ann'l P/E Ratio	21.0
.79	1.00	1.87	1.26	1.28	1.71	1.39	1.46	1.23	1.15	1.19	1.40	1.13	1.36	1.32	1.11	.99	.99	Relative P/E Ratio	1.30
5.4%	4.4%	4.2%	3.8%	3.7%	3.5%	3.4%	3.5%	3.7%	3.7%	4.0%	4.7%	4.2%	4.0%	4.0%	3.7%	3.6%	3.6%	Avg Ann'l Div'd Yield	3.3%

CAPITAL STRUCTURE as of 9/30/14
 Total Debt \$165.3 mill. Due in 5 Yrs \$56.4 mill.
 LT Debt \$129.2 mill. LT Interest \$4.5 mill.
 (LT interest earned: 6.0x)

Pension Assets-12/13 \$46.4 mill.
 Oblig. \$56.0 mill.
 Pfd Stock \$2.4 mill. Pfd Div'd: \$.1 mill.

Common Stock 16,111,268 shs.
 as of 10/31/14

MARKET CAP: \$350 million (Small Cap)

71.0	74.6	81.1	86.1	91.0	91.2	102.1	110.4	114.8	118	125	125	125	125	125	125	125	125	Revenues (\$mill)	150
8.4	8.5	10.0	11.8	12.2	10.0	14.3	13.4	14.4	16.6	17.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	Net Profit (\$mill)	21.0
31.1%	27.6%	33.4%	32.6%	33.2%	34.1%	32.1%	32.7%	33.9%	34.1%	34.5%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	Income Tax Rate	34.5%
---	---	---	---	---	---	6.8%	6.1%	3.4%	1.9%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	AFUDC % to Net Profit	2.0%
53.8%	55.3%	49.5%	49.0%	45.6%	46.6%	43.1%	42.3%	41.5%	40.4%	40.0%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%	Long-Term Debt Ratio	43.5%
42.5%	41.3%	47.5%	49.6%	51.8%	52.1%	55.8%	56.6%	57.4%	58.7%	59.5%	57.0%	57.0%	57.0%	57.0%	57.0%	57.0%	57.0%	Common Equity Ratio	56.0%
214.5	231.7	264.0	268.8	259.4	267.9	310.5	312.5	316.5	321.4	330	350	350	350	350	350	350	350	Total Capital (\$mill)	400
262.9	288.0	317.1	333.9	366.3	376.5	405.9	422.2	435.2	446.5	460	470	470	470	470	470	470	470	Net Plant (\$mill)	500
5.1%	5.0%	5.1%	5.6%	5.8%	5.0%	5.7%	5.2%	5.4%	5.9%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	Return on Total Cap'l	6.5%
8.5%	8.2%	7.5%	8.6%	8.6%	7.0%	8.1%	7.5%	7.8%	8.7%	9.0%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	Return on Shr. Equity	9.5%
9.0%	8.6%	7.8%	8.7%	8.9%	7.0%	8.2%	7.5%	7.8%	8.7%	9.0%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	Return on Com Equity	9.5%
.9%	.6%	1.3%	1.8%	2.0%	.1%	2.1%	1.0%	1.4%	2.4%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	Retained to Com Eq	3.0%
90%	94%	84%	79%	78%	98%	75%	87%	83%	73%	69%	67%	67%	67%	67%	67%	67%	67%	All Div's to Net Prof	66%

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 60,000 retail customers, primarily in Middlesex County, New Jersey. In 2013, the Middlesex System accounted for 60% of operating revenues. At 12/31/13, the company had 279 employees. Incorporated: NJ. President, CEO, and Chairman: Dennis W. Doll. Officers & directors own 3.3% of the common stock; BlackRock, 7.4%; Vanguard 3.3%. (4/14 proxy). Add.: 1500 Ronson Road, Iselin, NJ 08830. Tel.: 732-634-1500. Internet: www.middlesexwater.com.

ANNUAL RATES Past 10 Yrs. Past 5 Yrs. Est'd '11-'13 of change (per sh)

Revenues	1.5%	1.0%	6.5%
"Cash Flow"	3.0%	1.5%	5.5%
Earnings	3.5%	1.5%	5.0%
Dividends	1.5%	1.5%	2.0%
Book Value	4.5%	3.0%	2.5%

Middlesex Water Company has an incredibly consistent dividend policy. In late October, the company raised its dividend by one-quarter of \$0.01. For the full year, the increase works out to one cent. This marks the 12th straight year in which the utility has raised the annual payout by \$0.01.

ed, this was a good showing, considering that the company lost its largest client (a Hess refinery) and the borough of Sayreville less than two years ago. In 2015, the increase in profits will probably be less impressive, as we estimate only calls for a 4%-5% advance in share net to \$1.15.

QUARTERLY REVENUES (\$ mill.)

Cal-ender	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2011	24.0	26.1	28.7	23.3	102.1
2012	23.5	27.4	32.4	27.1	110.4
2013	27.0	29.1	31.3	27.1	114.8
2014	27.1	29.2	32.7	29.0	118
2015	29.0	31.0	34.0	31.0	125

Consistency is not always a good characteristic for a company. The latest dividend hike represents a paltry 1.3% yearly hike, compared to the industry average of over 6%. Indeed, this represented the lowest rate of growth of any regulated water utility in the industry. What's more, we don't anticipate any change in Middlesex's one-cent-a-year philosophy until 2016 or 2017.

The balance sheet may be small but it is relatively solid. With net plant just a little north of \$450 million and total capital of only about \$330 million, Middlesex has better than average financial metrics compared to the rest of the industry.

EARNINGS PER SHARE ^A

Cal-ender	Mar.31	Jun. 30	Sep. 30	Dec. 31	Full Year
2011	.11	.23	.32	.12	.84
2012	.11	.23	.38	.17	.90
2013	.20	.28	.36	.19	1.03
2014	.20	.29	.42	.19	1.10
2015	.21	.31	.43	.20	1.15

Near-term earnings prospects are not bad for a water utility. Even though we are not looking for a great comparison in the fourth quarter, better-than-expected results in the September period were probably enough to enable the company to earn \$1.10 a share, a solid 7% increase over 2013. Modest rate increases in both New Jersey and Delaware were most likely behind most of the gains. All things consider-

More attractive candidates can be found for those investors insisting on being involved in the water utility industry. If a water utility stock must be selected, we think that most current valuations in the group are too high. Moreover, Middlesex would not be our recommendation. Typically, utilities with subpar dividend growth prospects must compensate buyers by having a much higher yield. Middlesex's yield does not appear to be high enough to make up for its poor dividend growth prospects.

QUARTERLY DIVIDENDS PAID ^B

Cal-ender	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.183	.183	.183	.185	.73
2012	.185	.185	.185	.1875	.74
2013	.1875	.1875	.1875	.19	.75
2014	.19	.19	.19	.1925	.76
2015					

James A. Flood January 16, 2015

Company's Financial Strength B+

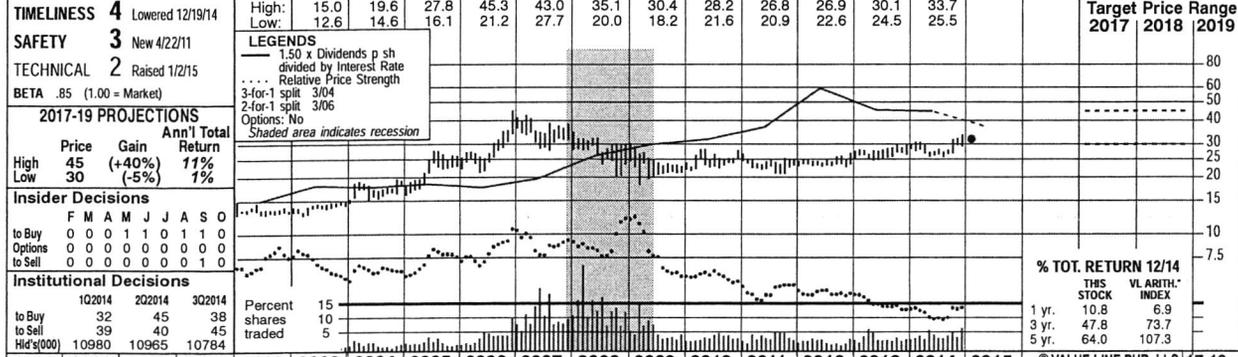
Stock's Price Stability	95
Price Growth Persistence	40
Earnings Predictability	80

(A) Diluted earnings. May not sum due to rounding. Next earnings report due mid-February. (B) Dividends historically paid in mid-Feb. (C) In millions, adjusted for splits.

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SJW CORP. NYSE-SJW RECENT PRICE **32.02** P/E RATIO **11.6** (Trailing: 12.9 Median: 24.0) RELATIVE P/E RATIO **0.64** DIV'D YLD **2.5%** VALUE LINE



1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC 17-19	
5.58	6.40	6.74	7.45	7.97	8.20	9.14	9.86	10.35	11.25	12.12	11.68	11.62	12.85	14.01	13.73	15.85	14.75	Revenues per sh	17.15
1.26	1.43	1.23	1.49	1.55	1.75	1.89	2.21	2.38	2.30	2.44	2.21	2.38	2.80	2.97	2.90	4.40	3.35	"Cash Flow" per sh	3.85
.76	.87	.58	.77	.78	.91	.87	1.12	1.19	1.04	1.08	.81	.84	1.11	1.18	1.12	2.60	1.45	Earnings per sh ^A	1.70
.39	.40	.41	.43	.46	.49	.51	.53	.57	.61	.65	.66	.68	.69	.71	.73	.75	.79	Div'd Decl'd per sh ^{B=C}	1.00
1.81	1.77	1.89	2.63	2.06	3.41	2.31	2.83	3.87	6.62	3.79	3.17	5.65	3.75	5.67	4.68	4.60	5.25	Cap'l Spending per sh	5.00
7.53	7.88	7.90	8.17	8.40	9.11	10.11	10.72	12.48	12.90	13.99	13.66	13.75	14.20	14.71	15.92	17.55	18.55	Book Value per sh	20.70
19.01	18.27	18.27	18.27	18.27	18.27	18.27	18.27	18.28	18.36	18.18	18.50	18.55	18.59	18.67	20.17	20.50	21.00	Common Shs Outst'g ^C	23.00
13.1	15.5	33.1	18.5	17.3	15.4	19.6	19.7	23.5	33.4	26.2	28.7	29.1	21.2	20.4	24.3	10.9	10.9	Avg Ann'l P/E Ratio	22.0
.68	.88	2.15	.95	.94	.88	1.04	1.05	1.27	1.77	1.58	1.91	1.85	1.33	1.30	1.36	.57	.57	Relative P/E Ratio	1.40
3.9%	3.0%	2.1%	3.0%	3.4%	3.5%	3.0%	2.4%	2.0%	1.7%	2.3%	2.8%	2.8%	2.9%	3.0%	2.7%	2.6%	2.6%	Avg Ann'l Div'd Yield	2.7%

CAPITAL STRUCTURE as of 9/30/14		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Debt \$393.3 mill. Due in 5 Yrs \$21.2 mill.		166.9	180.1	189.2	206.6	220.3	220.3	216.1	215.6	239.0	261.5	276.9	325	310	310	261.5	276.9	325	310
LT Debt \$384.5 mill. LT Interest \$18.1 mill.		16.0	20.7	22.2	19.3	20.2	15.2	15.8	20.9	22.3	23.5	22.3	23.5	52.0	30.0	30.0	38.0%	38.0%	38.0%
(Total interest coverage: 2.9x) (52% of Cap'l)		42.1%	41.6%	40.8%	39.4%	39.5%	40.4%	40.4%	41.1%	41.1%	38.7%	38.7%	30.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Leases, Uncapitalized: Annual rentals \$5.5 mill.		2.1%	1.6%	2.1%	2.7%	2.3%	2.0%	2.0%	--	2.0%	--	--	--	--	--	--	--	--	--
Pension Assets \$91.4 mill. Oblig. \$128.7 mill.		43.7%	42.6%	41.8%	47.7%	46.0%	49.4%	53.7%	56.6%	55.0%	51.1%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%	52.0%
Pfd Stock None.		56.3%	57.4%	58.2%	52.3%	54.0%	50.6%	46.3%	43.4%	45.0%	48.9%	48.0%	47.5%	47.5%	47.5%	47.5%	47.5%	47.5%	47.5%
Common Stock 20,238,134 shs. as of 10/24/14		328.3	341.2	391.8	453.2	470.9	499.6	550.7	607.9	610.2	656.2	750	825	750	825	825	825	825	825
MARKET CAP: \$650 million (Small Cap)		456.8	484.8	541.7	645.5	684.2	718.5	785.5	756.2	831.6	898.7	965	1010	965	1010	1010	1010	1010	1010
CURRENT POSITION		6.5%	7.6%	7.0%	5.7%	5.8%	4.4%	4.3%	4.9%	5.0%	5.0%	8.5%	5.0%	5.0%	8.5%	5.0%	5.0%	5.0%	5.0%
2012		8.7%	10.6%	9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	7.3%	14.5%	8.0%	8.0%	14.5%	8.0%	8.0%	8.0%	8.0%
2013		8.7%	10.6%	9.7%	8.2%	8.0%	6.0%	6.2%	7.9%	8.1%	7.3%	14.5%	8.0%	8.0%	14.5%	8.0%	8.0%	8.0%	8.0%
2014		3.6%	5.6%	5.2%	3.5%	3.3%	1.2%	1.2%	3.1%	3.3%	2.8%	10.5%	3.5%	3.5%	10.5%	3.5%	3.5%	3.5%	3.5%
2015		58%	47%	46%	57%	59%	80%	80%	61%	59%	62%	29%	54%	54%	54%	54%	54%	54%	54%

BUSINESS: SJW Corporation engages in the production, purchase, storage, purification, distribution, and retail sale of water. It provides water service to approximately 228,000 connections that serve a population of approximately one million people in the San Jose area and 11,000 connections that serve approximately 36,000 residents in a service area in the region between San Antonio and Austin, Texas. The company offers nonregulated water-related services, including water system operations, cash remittances, and maintenance contract services. SJW also owns and operates commercial real estate investments. Has about 379 employees. Chrm.: Charles J. Toeniskoetter, Inc.: CA. Address: 110 W. Taylor Street, San Jose, CA 95110. Tel.: (408) 279-7800. Int: www.sjwater.com.

SJW's impressive 2014 performance was the result of a one-time event. In the third quarter, the utility's share net spiked to \$1.88, versus the \$0.44 recorded in the similar 2013 period. Behind this whopping increase was SJW's recognition of \$58.2 million in revenues due the company for expenses incurred in previous years. The delay in recovering the revenues was the reason for the previous four quarters having negative year-over-year comparisons. We are not backing out the profits as a nonrecurring item because they were earned by the utility's main business during the course of normal operations. It's just that they were recognized all at the same time. Investors should note that SJW's P/E and relative P/E ratio will be out of kilter for the next three months. **Earnings in 2015 will not be as poor as they will probably appear.** Excluding the large one-time item taken by SJW last year, we estimate that the utility could have shown close to a double-digit increase in earnings per share. **SJW is in the midst of overhauling its outdated infrastructure.** To remove and install new pipes, as well as repair and modernize waste facilities, the company will need to spend close to \$1 billion annually over the next several years. **The large projected capital outlays will only have a minor impact on the company's balance sheet.** SJW will have to issue new debt because internally generated funds will not cover the entire long-term capital budget. The common equity-to-total capital ratio will most likely decline from the current 48% level to about 46.5% by later in the decade. This should leave the utility with marginally below-average finances. **Shares of SJW do not have good near-term prospects.** Our proprietary system has dropped the ranking of SJW one notch to 4 (Below Average) for year-ahead relative performance. **Long-term prospects are not encouraging either.** The 18% rise in the price of the equity since our October report has reduced much of SJW's appeal. With the stock already trading in our 2017-2019 projected Target Price Range, both total return and capital appreciation potential are not impressive.

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	43.7	59.0	73.9	62.4	239.0
2012	51.1	65.6	82.4	62.4	261.5
2013	50.1	74.2	85.2	62.4	276.9
2014	54.6	70.4	125.4	74.6	325
2015	60.0	75.0	95.0	80.0	310

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.03	.29	.44	.35	1.11
2012	.06	.28	.53	.31	1.18
2013	.07	.37	.44	.24	1.12
2014	.04	.34	1.88	.34	2.60
2015	.10	.43	.55	.35	1.45

Cal-endar	Mar.31	Jun.30	Sep.30	Dec.31	Full Year
2011	.173	.173	.173	.173	.69
2012	.1775	.1775	.1775	.1775	.71
2013	.1825	.1825	.1825	.1825	.73
2014	.1875	.1875	.1875	.1875	.75
2015					

(A) Diluted earnings. Excludes nonrecurring losses: '03, \$1.97; '04, \$3.78; '05, \$1.09; '06, \$16.36; '08, \$1.22; '10, 46¢. Next earnings report due mid February. Quarterly egs. may not add due to rounding. (B) Dividends historically paid in early March, June, September, and December. Div'd reinvestment plan available. (C) In millions, adjusted for stock splits. **Company's Financial Strength** B+ **Stock's Price Stability** 80 **Price Growth Persistence** 30 **Earnings Predictability** 80 **To subscribe call 1-800-VALUELINE**

YORK WATER NDQ-YORW

RECENT PRICE **22.35** P/E RATIO **24.3** (Trailing: 27.3 Median: 25.0) RELATIVE P/E RATIO **1.34** DIV'D YLD **2.7%** VALUE LINE

TIMELINESS 3 Raised 12/19/14	High: 13.5	14.0	17.9	21.0	18.5	16.5	18.0	18.0	18.1	18.5	22.0	24.3	Target Price Range 2017 2018 2019
SAFETY 2 New 7/19/13	Low: 9.3	11.0	11.7	15.3	15.5	6.2	9.7	12.8	15.8	16.8	17.6	18.8	
TECHNICAL 3 Lowered 10/10/14	LEGENDS --- 1.10 x Dividends p sh divided by Interest Rate Relative Price Strength 2-for-1 split 5/02 3-for-2 split 9/06 Options: No Shaded area indicates recession												
BETA .65 (1.00 = Market)	2017-19 PROJECTIONS Price Gain Ann'l Total High 30 (+35%) 10% Low 20 (-10%) 1%												
Insider Decisions F M A M J J A S O to Buy 0 1 4 1 0 4 2 1 4 Options 0 0 0 0 0 0 0 0 0 to Sell 0 0 0 0 1 0 0 0 0													
Institutional Decisions 1Q2014 2Q2014 3Q2014 to Buy 30 29 30 to Sell 21 28 30 Hid's(000) 3634 3603 3656													

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	© VALUE LINE PUB. LLC	17-19
--	--	--	2.05	2.05	2.17	2.18	2.58	2.56	2.79	2.89	2.95	3.07	3.18	3.21	3.27	3.60	3.85	Revenues per sh	4.65
--	--	--	.59	.57	.65	.65	.79	.77	.86	.88	.95	1.07	1.09	1.12	1.19	1.35	1.45	"Cash Flow" per sh	1.70
--	--	--	.43	.40	.47	.49	.56	.58	.57	.64	.71	.71	.71	.72	.75	.85	.95	Earnings per sh ^A	1.10
--	--	--	.34	.35	.37	.39	.42	.45	.48	.49	.51	.52	.53	.54	.55	.57	.60	Div'd Decl'd per sh ^B	.75
--	--	--	.75	.66	1.07	2.50	1.69	1.85	1.69	2.17	1.18	.83	.74	.94	.76	.95	.95	Cap'l Spending per sh	1.00
--	--	--	3.79	3.90	4.06	4.65	4.85	5.84	5.97	6.14	6.92	7.19	7.45	7.73	7.98	8.20	8.00	Book Value per sh	8.90
--	--	--	9.46	9.55	9.63	10.33	10.40	11.20	11.27	11.37	12.56	12.69	12.79	12.92	12.98	12.80	12.50	Common Shs Outst'g ^C	11.80
--	--	--	17.8	26.9	24.5	25.7	26.3	31.2	30.3	24.6	21.9	20.7	23.9	24.4	26.3	24.2		Avg Ann'l P/E Ratio	22.5
--	--	--	.91	1.47	1.40	1.36	1.40	1.68	1.61	1.48	1.46	1.32	1.50	1.55	1.48	1.26		Relative P/E Ratio	1.40
--	--	--	4.4%	3.3%	3.2%	3.1%	2.9%	2.5%	2.8%	3.5%	3.6%	3.5%	3.1%	3.1%	2.8%	2.8%		Avg Ann'l Div'd Yield	3.0%

CAPITAL STRUCTURE as of 9/30/14		2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Revenues (\$mill)	Net Profit (\$mill)
Total Debt \$84.9 mill. Due in 5 Yrs \$19.5 mill.		22.5	26.8	28.7	31.4	32.8	37.0	39.0	40.6	41.4	42.4	46.0	48.0	48.0	48.0	48.0	55.0
LT Debt \$84.9 mill. LT Interest \$5.1 mill.		4.8	5.8	6.1	6.4	6.4	7.5	8.9	9.1	9.3	9.7	11.0	12.0	12.0	12.0	12.0	13.0
(Total interest coverage: 4.0x)		36.7%	36.7%	34.4%	36.5%	36.1%	37.9%	38.5%	35.3%	37.6%	37.6%	37.5%	38.0%	38.0%	38.0%	37.5%	37.5%
(45% of Cap'l)		--	--	7.2%	3.6%	10.1%	--	1.2%	1.1%	1.1%	.8%	1.5%	1.5%	1.5%	1.5%	1.5%	1.0%
Pension Assets 12/13 \$27.1 mill.		42.5%	44.1%	48.3%	46.5%	54.5%	45.7%	48.3%	47.1%	46.0%	45.1%	45.0%	46.0%	46.0%	46.0%	46.0%	50.0%
Oblig. \$32.1 mill.		57.5%	55.9%	51.7%	53.5%	45.5%	54.3%	51.7%	52.9%	54.0%	54.9%	55.0%	54.0%	54.0%	54.0%	54.0%	50.0%
Pfd Stock None		83.6	90.3	126.5	125.7	153.4	160.1	176.4	180.2	184.8	188.4	190.0	185.0	185.0	185.0	185.0	210.0
Common Stock 12,809,217 shs. as of 11/4/14		140.0	155.3	174.4	191.6	211.4	222.0	228.4	233.0	240.3	244.2	250.0	255.0	255.0	255.0	255.0	270.0
MARKET CAP: \$275 million (Small Cap)		7.6%	8.4%	6.2%	6.7%	5.7%	6.2%	6.5%	6.4%	6.4%	6.5%	7.0%	8.0%	8.0%	8.0%	8.0%	7.5%
CURRENT POSITION 2012 2013 9/30/14 (\$MILL.)		10.0%	11.6%	9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	9.3%	10.5%	12.0%	12.0%	12.0%	12.0%	12.5%
Cash Assets 4.0 7.6 3.2		10.0%	11.6%	9.3%	9.5%	9.2%	8.6%	9.8%	9.5%	9.3%	9.3%	10.5%	12.0%	12.0%	12.0%	12.0%	12.5%
Accounts Receivable 6.4 3.8 4.2		2.1%	3.0%	2.2%	1.7%	1.4%	1.9%	2.7%	2.5%	2.4%	2.4%	3.5%	4.5%	4.5%	4.5%	4.5%	4.0%
Other 1.2 3.8 4.3		79%	74%	77%	82%	85%	78%	72%	73%	74%	74%	67%	66%	66%	66%	66%	68%
Current Assets 11.6 15.2 11.7		BUSINESS: The York Water Company is the oldest investor-owned regulated water utility in the United States. It has operated continuously since 1816. As of December 31, 2013, the company's average daily availability was 35.0 million gallons and its service territory had an estimated population of 190,000. Has more than 63,000 customers. Residential customers accounted for 63% of 2013 revenues; commercial and industrial (29%); other (8%). It also provides sewer billing services. Incorporated: PA. York had 105 full-time employees at 12/31/13. President/CEO: Jeffrey R. Hines. Officers/directors own 1.1% of the common stock (3/14 proxy). Address: 130 East Market Street York, Pennsylvania 17401. Telephone: (717) 845-3601. Internet: www.yorkwater.com.															
Accts Payable 1.1 1.8 2.7		In late November, The York Water Company raised its dividend by 4.5%. This increase is much higher than the subpar (for a water utility) 2.5% annual growth rate that the company averaged over the past five years. We believe this is the start of a trend in which York will probably be able to raise the yearly payout between 5% and 6% for the next five years. The company has solid short-term earning prospects. For the last 10 months of 2014, Pennsylvania regulators allowed York to raise customers' monthly bills. This probably enabled the company to earn \$0.85 a share in 2014, a 13% increase over 2013. In 2015, due to a combination of the higher tariffs being in effect for all 12 months, along with a slower increase in expenses thanks to some cost cutting, we look for a 12% increase in share earnings, to \$0.95. The capital budget is manageable. Most U.S. water utilities have aging infrastructures that are in need of repair. We estimate that York spent about \$12 million for this purpose last year and will come close to this figure again in 2015. So, while the outlays will be meaningful, they will not be overwhelming. Finances should remain solid. Cash on hand and internally generated funds were probably sufficient to meet 2014's planned expenditures. Over the next three- to five-year period, however, York will most likely have to access the debt markets to fully fund the capital budget. Currently, the company is well capitalized, as its common equity-to-total capital ratio is a healthy 55%. So, while the company's financial condition may slip a few notches, we think the balance sheet will remain healthy. As has been the case with most water utilities, York shares have been performing extremely well. In December alone, the value of the equity rose 20%. This strong showing has reduced the dividend yield to only 2.7%, or only 60 basis points higher than the median of all dividend-paying companies in the Value Line universe. Investors have been willing to pay a substantial premium for just a little more current income. In addition, the recent price run-up in the stock has left it with meager potential returns through 2017-2019.															
Debt Due 1.1 1.8 2.7		James A. Flood January 16, 2015															
Other 4.3 6.0 8.9		Company's Financial Strength B+ Stock's Price Stability 90 Price Growth Persistence 55 Earnings Predictability 100															
Current Liab. 5.5 7.8 11.6		To subscribe call 1-800-VALUELINE															
Fix. Chg. Cov. 414% 417% 417%		© 2015 Value Line Publishing LLC. All rights reserved. Factual material is obtained from sources believed to be reliable and is provided without warranties of any kind. THE PUBLISHER IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS HEREIN. This publication is strictly for subscriber's own, non-commercial, internal use. No part of it may be reproduced, resold, stored or transmitted in any printed, electronic or other form, or used for generating or marketing any printed or electronic publication, service or product.															

Cal-endar	QUARTERLY REVENUES (\$ mill.)				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2011	9.6	10.5	10.5	10.0	40.6
2012	9.6	10.4	11.0	10.4	41.4
2013	10.1	10.7	10.9	10.7	42.4
2014	10.6	11.8	12.1	11.5	46.0
2015	11.0	12.0	12.5	12.5	48.0

Cal-endar	EARNINGS PER SHARE ^A				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2011	.17	.19	.19	.16	.71
2012	.15	.17	.22	.18	.72
2013	.17	.18	.19	.21	.75
2014	.16	.22	.23	.24	.85
2015	.20	.25	.25	.25	.95

Cal-endar	QUARTERLY DIVIDENDS PAID ^B				Full Year
	Mar.31	Jun.30	Sep.30	Dec.31	
2011	.131	.131	.131	.131	.524
2012	.134	.134	.134	.134	.535
2013	.138	.138	.138	.138	.552
2014	.1431	.1431	.1431	.1431	.572
2015	.1495				

(A) Diluted earnings. Next earnings report due mid February. (B) Dividends historically paid in mid-January, April, July, and October. (C) In millions, adjusted for splits.

United Water Idaho Inc.
 Current Institutional Holdings and Individual Holdings
the Proxy Group of Eight Water Companies

	[1]	[2]
	March 31, 2015 Percentage of Institutional Holdings	March 31, 2015 Percentage of Individual Holdings (1)
Proxy Group of Eight Water Companies		
American States Water Co.	68.60 %	31.40 %
American Water Works Co., Inc.	87.92	12.08
Aqua America, Inc.	52.04	47.96
California Water Service Group	75.59	24.41
Connecticut Water Service, Inc.	41.44	58.56
Middlesex Water Company	41.85	58.15
SJW Corporation	59.78	40.22
York Water Company	32.04	67.96
Average	57.41 %	42.59 %

Notes:

(1) (1 - column 1).

Source of Information: Bloomberg Professional, March 31, 2015

United Water Idaho Inc.
Summary of Risk Premium Models for the
Proxy Group of Eight Water Companies

	<u>Proxy Group of Eight Water Companies</u>
Predictive Risk Premium Model™ (PRPM™) (1)	11.69 %
Risk Premium Using an Adjusted Total Market Approach (2)	<u>9.75 %</u>
Average	<u><u>10.72 %</u></u>

Notes:

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

Proxy Group of Eight Water Companies
Indicated ROE
Derived by the Predictive Risk Premium Model (1)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]
Proxy Group of Eight Water Companies	LT Average Predicted Variance	Spot Predicted Variance	Average Predicted Variance	GARCH Coefficient	Predicted Risk Premium (2)	Risk-Free Rate (3)	Indicated ROE (4)
American States Water Co.	0.39%	0.44%	0.42%	1.678607	8.80%	3.68%	12.48%
American Water Works Co., Inc.	NM	NM	NM	NM	NM	3.68%	NM
Aqua America, Inc.	0.47%	0.32%	0.39%	2.228726	10.94%	3.68%	14.62%
California Water Service Group	0.32%	0.35%	0.33%	1.860775	7.62%	3.68%	11.30%
Connecticut Water Service, Inc.	0.28%	0.25%	0.27%	1.789657	5.96%	3.68%	9.64%
Middlesex Water Company	0.27%	0.34%	0.30%	1.99182	7.41%	3.68%	11.09%
SJW Corporation	0.42%	0.42%	0.42%	1.367863	7.12%	3.68%	10.80%
York Water Company	0.45%	0.37%	0.41%	2.118092	10.93%	3.68%	14.61%
						Average	<u>12.08%</u>
						Median	<u>11.30%</u>
					Average of Mean and Median		<u>11.69%</u>

Notes:

- (1) The Predictive Risk Premium Model uses historical data to generate a predicted variance and a GARCH coefficient. The historical data used are the equity risk premiums for the first available trading month as reported by CRSP® Data® 2012 through March 2015. Center for Research in Security Prices, The University of Chicago Booth School of Business and Bloomberg Professional Service.
- (2) $(1 + (\text{Column [1]} * \text{Column [2]})^{12}) - 1$.
- (3) From note 2 on page 2 of schedule (PMA-7).
- (4) Column [3] + Column [4].

United Water Idaho Inc.
Indicated Common Equity Cost Rate
Through Use of a Risk Premium Model
Using an Adjusted Total Market Approach

<u>Line No.</u>		<u>Proxy Group of Eight Water Companies</u>
1.	Prospective Yield on Aaa Rated Corporate Bonds (1)	4.74 %
2.	Adjustment to Reflect Yield Spread Between Aaa Rated Corporate Bonds and A Rated Public Utility Bonds	<u>0.10</u> (2)
3.	Adjusted Prospective Yield on A Rated Public Utility Bonds	4.84 %
4.	Adjustment to Reflect Bond Rating Difference of Proxy Group	<u>0.13</u> (3)
5.	Adjusted Prospective Bond Yield	4.97 %
6.	Equity Risk Premium (5)	<u>4.78</u>
7.	Risk Premium Derived Common Equity Cost Rate	<u><u>9.75</u></u> %

- Notes:
- (1) Consensus forecast of Moody's Aaa Rated Corporate bonds from Blue Chip Financial Forecasts (see pages 9-10 of this Schedule).
 - (2) The average yield spread of A rated public utility bonds over Aaa rated corporate bonds of 0.10% from page 6 of this Schedule.
 - (3) Adjustment to reflect the A2 / A3 Moody's LT issuer rating of the proxy group of eight water companies as shown on page 6 of this Schedule. The 13 basis point upward adjustment is derived by taking 1/6 of the spread between A2 and A3 Public Utility Bonds ($1/6 * 0.78\% = 0.13\%$) as derived from page 4 of this Schedule.
 - (4) From page 7 of this Schedule.

United Water Idaho Inc.
Interest Rates and Bond Spreads for
Moody's Corporate and Public Utility Bonds

Selected Bond Yields

	[1]	[2]	[3]
	<u>Aaa Rated Corporate Bond</u>	<u>A Rated Public Utility Bond</u>	<u>Baa Rated Public Utility Bond</u>
Jan-15	3.46 %	3.58 %	4.39 %
Feb-15	3.61	3.67	4.44
Mar-15	<u>3.64</u>	<u>3.74</u>	<u>4.51</u>
Average	<u><u>3.57 %</u></u>	<u><u>3.67 %</u></u>	<u><u>4.45 %</u></u>

Selected Bond Spreads

A Rated Public Utility Bonds Over Aaa Rated Corporate Bonds:	<u><u>0.10 %</u></u> (1)
Baa Rated Public Utility Bonds Over A Rated Public Utility Bonds:	<u><u>0.78 %</u></u> (2)

Notes:

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

Source of Information:

Bloomberg Professional Service

United Water Idaho Inc.
 Comparison of Long-Term Issuer Ratings for the
Proxy Group of Eight Water Companies

<u>Proxy Group of Eight Water Companies</u>	<u>Moody's</u>		<u>Standard & Poor's</u>	
	<u>Long-Term Issuer Rating</u>		<u>Long-Term Issuer Rating</u>	
	<u>March 2015</u>		<u>March 2015</u>	
	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting(1)</u>	<u>Long-Term Issuer Rating</u>	<u>Numerical Weighting(1)</u>
American States Water Co. (2)	A2	6.0	A+	5.0
American Water Works Co., Inc. (3)	A3	7.0	A-	7.0
Aqua America, Inc. (4)	NR	--	A+	5.0
California Water Service Group (5)	NR	--	A+	5.0
Connecticut Water Service, Inc. (6)	NR	--	A	6.0
Middlesex Water Company	NR	--	A-	7.0
SJW Corporation (7)	NR	--	A	6.0
York Water Company	NR	--	A-	7.0
Average	<u>A2/A3</u>	<u>6.5</u>	<u>A</u>	<u>6.0</u>

Notes:

- (1) From page 6 of this Schedule.
- (2) Ratings are those of Golden State Water
- (3) Ratings are those of Pennsylvania American Water and New Jersey American Water.
- (4) Ratings are those of Aqua Pennsylvania, Inc.
- (5) Ratings are those of California Water
- (6) Ratings are those of Connecticut Water
- (7) Ratings are those of San Jose Water Co.

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-
B	14	B+
B2	15	B
B3	16	B-

United Water Idaho Inc.
Judgment of Equity Risk Premium for
the Proxy Group of Eight Water Companies

<u>Line No.</u>		<u>Proxy Group of Eight Water Companies</u>
1.	Calculated equity risk premium based on the total market using the beta approach (1)	4.76 %
2.	Mean equity risk premium based on a study using the holding period returns of public utilities with A rated bonds (2)	<u>4.80</u>
3.	Average equity risk premium	<u><u>4.78 %</u></u>

Notes: (1) From page 8 of this Schedule.
(2) From page 11 of this Schedule.

United Water Idaho Inc.
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
the Proxy Group of Eight Water Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Proxy Group of Eight Water Companies</u>
1.	Ibbotson Equity Risk Premium (1)	5.89 %
2.	Ibbotson Equity Risk Premium based on PRPM™ (2)	6.37
3.	Equity Risk Premium Based on <u>Value Line</u> Summary and Index (3)	4.67
4.	Equity Risk Premium Based on S&P 500 Companies(4)	<u>8.12</u>
5.	Conclusion of Equity Risk Premium (5)	6.26 %
6.	Adjusted Beta (6)	<u>0.76</u>
7.	Forecasted Equity Risk Premium	<u><u>4.76 %</u></u>

- Notes:
- (1) Based on the arithmetic mean historical monthly returns on large company common stocks from Ibbotson® S&P 2015 Market Report minus the arithmetic mean monthly yield of Moody's Aaa and Aa corporate bonds from 1926 - 2014. $(12.07\% - 6.18\% = 5.89\%)$.
 - (2) The Predictive Risk Premium Model (PRPM) is discussed in Ms. Ahern's 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 minus the average Aaa and Aa corporate monthly bond yields, from January 1928 through February 2015.
 - (3) The equity risk premium based on the Value Line Summary and Index is derived from taking the projected 3-5 year total annual market return of 9.41% (described fully in note 1 of Schedule (PMA-7)) and subtracting the average consensus forecast of Aaa corporate bonds of 4.74% (Shown on page 3 of this Schedule). $(9.41\% - 4.74\% = 4.67\%)$.
 - (4) Using data from the Bloomberg Professional Service for the S&P 500, an expected total return of 12.86% was derived based upon expected dividend yields and long-term growth estimates as a proxy for capital appreciation. Subtracting the average consensus forecast of Aaa corporate bonds of 4.74% results in an expected equity risk premium of 8.12%. $(12.86\% - 4.74\% = 8.12\%)$.
 - (5) Average of Lines 1 through 4.
 - (6) Average of mean and median beta from Schedule (PMA-7).

Sources of Information:

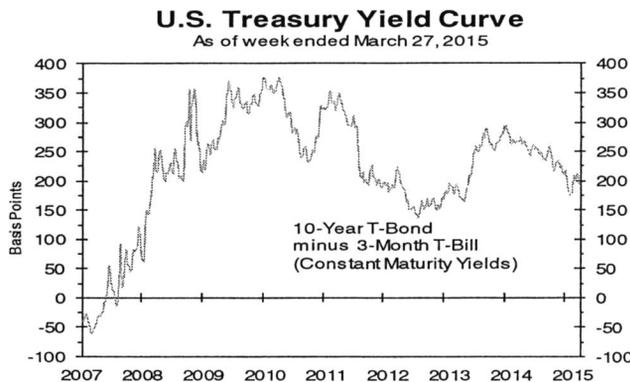
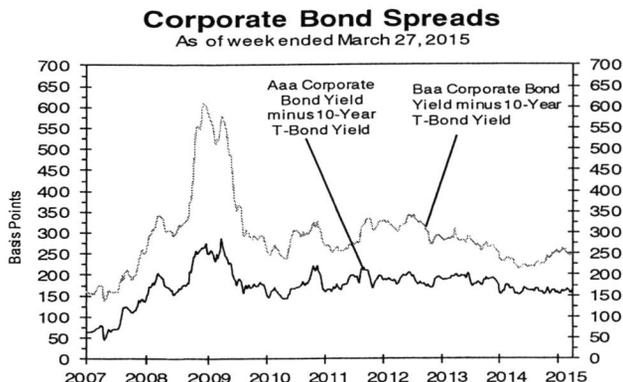
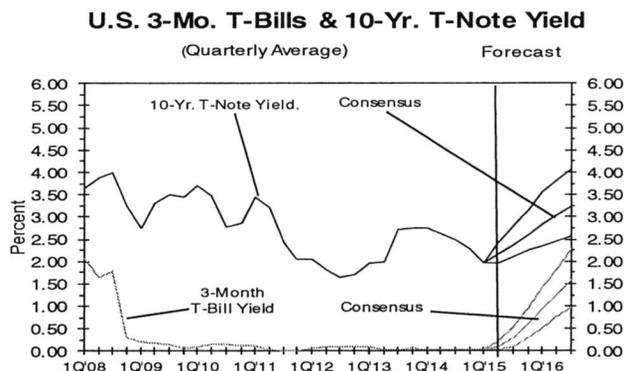
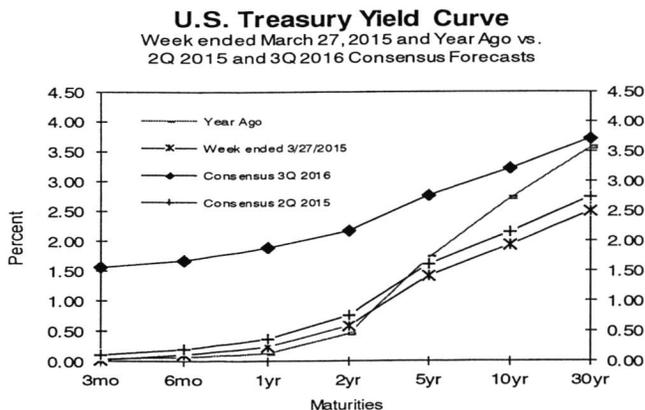
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Bloomberg Professional Services

Consensus Forecasts Of U.S. Interest Rates And Key Assumptions¹

Interest Rates	-----History-----								Consensus Forecasts-Quarterly Avg.						
	-----Average For Week Ending-----				-----Average For Month-----				Latest Q*	2Q	3Q	4Q	1Q	2Q	3Q
	Mar. 27	Mar. 20	Mar. 13	Mar. 6	Feb.	Jan.	Dec.	1Q 2015	2015	2015	2015	2016	2016	2016	
Federal Funds Rate	0.12	0.11	0.12	0.09	0.11	0.11	0.12	0.11	0.2	0.4	0.7	1.0	1.3	1.6	
Prime Rate	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.3	3.4	3.7	4.0	4.3	4.6	
LIBOR, 3-mo.	0.27	0.27	0.27	0.27	0.26	0.26	0.23	0.26	0.3	0.5	0.9	1.2	1.5	1.9	
Commercial Paper, 1-mo.	0.08	0.09	0.08	0.07	0.08	0.09	0.11	0.08	0.2	0.3	0.7	1.0	1.4	1.7	
Treasury bill, 3-mo.	0.03	0.03	0.03	0.02	0.02	0.03	0.03	0.03	0.1	0.3	0.6	0.9	1.3	1.6	
Treasury bill, 6-mo.	0.11	0.13	0.10	0.08	0.07	0.08	0.11	0.09	0.2	0.4	0.7	1.1	1.4	1.7	
Treasury bill, 1 yr.	0.25	0.25	0.25	0.25	0.22	0.20	0.21	0.22	0.4	0.6	0.9	1.3	1.6	1.9	
Treasury note, 2 yr.	0.60	0.63	0.69	0.68	0.62	0.55	0.64	0.61	0.8	1.0	1.3	1.6	1.9	2.2	
Treasury note, 5 yr.	1.42	1.49	1.61	1.61	1.57	1.37	1.64	1.49	1.6	1.8	2.1	2.3	2.5	2.8	
Treasury note, 10 yr.	1.93	2.00	2.14	2.13	1.98	1.88	2.21	1.97	2.2	2.4	2.6	2.8	3.0	3.2	
Treasury note, 30 yr.	2.50	2.57	2.72	2.73	2.57	2.46	2.83	2.55	2.7	2.9	3.1	3.4	3.6	3.7	
Corporate Aaa bond	3.54	3.62	3.70	3.74	3.61	3.46	3.79	3.57	3.7	4.0	4.2	4.5	4.7	4.9	
Corporate Baa bond	4.45	4.51	4.59	4.60	4.51	4.45	4.74	4.50	4.6	4.8	5.1	5.3	5.5	5.7	
State & Local bonds	3.52	3.52	3.62	3.68	3.58	3.40	3.70	3.52	3.7	3.9	4.1	4.3	4.5	4.6	
Home mortgage rate	3.69	3.78	3.86	3.75	3.71	3.71	3.86	3.73	3.9	4.1	4.4	4.6	4.8	5.0	

Key Assumptions	-----History-----								Consensus Forecasts-Quarterly					
	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q*	2Q	3Q	4Q	1Q	2Q	3Q
	2013	2013	2013	2014	2014	2014	2014	2015	2015	2015	2016	2016	2016	2016
Major Currency Index	76.4	76.7	76.0	77.1	76.6	77.8	82.6	89.5	91.5	92.1	92.6	92.2	91.6	91.2
Real GDP	1.8	4.5	3.5	-2.1	4.6	5.0	2.2	1.7	3.2	3.0	3.0	2.8	2.8	2.8
GDP Price Index	1.2	1.7	1.5	1.3	2.1	1.4	0.1	0.2	1.6	1.8	1.9	1.9	2.0	2.1
Consumer Price Index	-0.1	2.3	1.4	2.1	2.4	1.2	-0.9	-2.3	1.9	1.9	2.1	2.2	2.2	2.3

Forecasts for interest rates and the Federal Reserve's Major Currency Index represent averages for the quarter. Forecasts for Real GDP, GDP Price Index and Consumer Price Index are seasonally-adjusted annual rates of change (saar). Individual panel members' forecasts are on pages 4 through 9. Historical data for interest rates except LIBOR is from Federal Reserve Release (FRSR) H.15. LIBOR quotes available from *The Wall Street Journal*. Interest rate definitions are same as those in FRSR H.15. Treasury yields are reported on a constant maturity basis. Historical data for Fed's Major Currency Index is from FRSR H.10 and G.5. Historical data for Real GDP and GDP Chained Price Index are from the Bureau of Economic Analysis (BEA). Consumer Price Index (CPI) history is from the Department of Labor's Bureau of Labor Statistics (BLS). ^{*}Interest rate data for 1Q 2015 based on historical data through the week ended March 27th. ^{*}Data for 1Q 2015 Major Currency Index is based on data through week ended March 20th. Figures for 1Q 2015 Real GDP, GDP Chained Price Index and Consumer Price Index are consensus forecasts based on a special question asked of the panelists' this month



Long-Range Estimates:

The table below contains results of our semi-annual long-range CONSENSUS survey. There are also Top 10 and bottom 10 averages for each variable. Shown are estimates for the years 2016 through 2020 and averages for the five-year periods 2016-2020 and 2020-2025. Apply these projections cautiously. Few economic, demographic and political forces can be evaluated accurately over such long time spans.

Interest Rates		-----Average For The Year-----					Five-Year Averages	
		2016	2017	2018	2019	2020	2016-2020	2021-2025
1. Federal Funds Rate	CONSENSUS	1.8	2.9	3.6	3.7	3.7	3.1	3.6
	Top 10 Average	2.4	3.7	4.2	4.2	4.2	3.7	4.1
	Bottom 10 Average	1.2	2.3	2.9	3.0	3.0	2.5	2.9
2. Prime Rate	CONSENSUS	4.7	5.8	6.5	6.6	6.6	6.0	6.5
	Top 10 Average	5.4	6.6	7.1	7.2	7.2	6.7	7.1
	Bottom 10 Average	4.2	5.2	5.8	5.9	5.8	5.4	5.6
3. LIBOR, 3-Mo.	CONSENSUS	2.1	3.2	3.7	3.9	3.9	3.3	3.8
	Top 10 Average	2.7	3.9	4.3	4.4	4.4	3.9	4.3
	Bottom 10 Average	1.5	2.5	3.1	3.2	3.3	2.7	3.3
4. Commercial Paper, 1-Mo.	CONSENSUS	1.9	3.0	3.5	3.7	3.7	3.1	3.7
	Top 10 Average	2.4	3.5	4.0	4.2	4.2	3.6	4.2
	Bottom 10 Average	1.5	2.5	3.0	3.1	3.2	2.7	3.2
5. Treasury Bill Yield, 3-Mo.	CONSENSUS	1.8	2.9	3.4	3.6	3.6	3.0	3.5
	Top 10 Average	2.4	3.6	4.0	4.2	4.1	3.7	4.1
	Bottom 10 Average	1.3	2.2	2.9	2.9	2.9	2.4	2.7
6. Treasury Bill Yield, 6-Mo.	CONSENSUS	2.0	3.0	3.6	3.7	3.7	3.2	3.6
	Top 10 Average	2.5	3.8	4.2	4.4	4.3	3.8	4.2
	Bottom 10 Average	1.5	2.4	3.0	3.1	3.1	2.6	2.8
7. Treasury Bill Yield, 1-Yr.	CONSENSUS	2.1	3.2	3.7	3.8	3.8	3.3	3.7
	Top 10 Average	2.8	3.9	4.4	4.5	4.4	4.0	4.3
	Bottom 10 Average	1.6	2.5	3.1	3.1	3.2	2.7	2.9
8. Treasury Note Yield, 2-Yr.	CONSENSUS	2.5	3.4	3.9	4.0	4.0	3.6	4.0
	Top 10 Average	3.3	4.1	4.5	4.7	4.6	4.2	4.5
	Bottom 10 Average	1.9	2.8	3.3	3.3	3.3	2.9	3.2
10. Treasury Note Yield, 5-Yr.	CONSENSUS	3.1	3.8	4.2	4.3	4.3	4.0	4.3
	Top 10 Average	3.8	4.5	4.9	5.1	5.1	4.7	4.9
	Bottom 10 Average	2.6	3.2	3.6	3.5	3.6	3.3	3.6
11. Treasury Note Yield, 10-Yr.	CONSENSUS	3.7	4.3	4.6	4.7	4.7	4.4	4.6
	Top 10 Average	4.4	5.0	5.4	5.6	5.6	5.2	5.4
	Bottom 10 Average	3.2	3.5	3.8	3.8	3.9	3.7	3.9
12. Treasury Bond Yield, 30-Yr.	CONSENSUS	4.3	4.8	5.0	5.1	5.2	4.9	5.1
	Top 10 Average	5.0	5.6	5.9	6.2	6.2	5.8	6.0
	Bottom 10 Average	3.7	4.0	4.2	4.2	4.3	4.1	4.3
13. Corporate Aaa Bond Yield	CONSENSUS	5.1	5.6	6.0	6.1	6.1	5.8	6.1
	Top 10 Average	5.8	6.4	6.8	7.0	7.0	6.6	6.8
	Bottom 10 Average	4.5	4.8	5.1	5.1	5.2	5.0	5.4
13. Corporate Baa Bond Yield	CONSENSUS	6.0	6.5	6.8	6.9	7.0	6.6	7.0
	Top 10 Average	6.7	7.3	7.7	7.9	7.9	7.5	7.7
	Bottom 10 Average	5.4	5.6	5.9	5.9	6.0	5.8	6.2
14. State & Local Bonds Yield	CONSENSUS	4.9	5.2	5.4	5.4	5.4	5.2	5.3
	Top 10 Average	5.5	5.7	6.0	6.1	6.1	5.9	6.0
	Bottom 10 Average	4.3	4.6	4.7	4.7	4.7	4.6	4.7
15. Home Mortgage Rate	CONSENSUS	5.2	5.8	6.2	6.3	6.3	6.0	6.2
	Top 10 Average	5.9	6.5	7.1	7.2	7.2	6.8	7.0
	Bottom 10 Average	4.6	5.1	5.5	5.5	5.5	5.2	5.3
A. FRB - Major Currency Index	CONSENSUS	83.6	83.3	82.7	82.4	82.1	82.8	82.0
	Top 10 Average	86.7	86.7	86.6	86.5	86.6	86.6	86.3
	Bottom 10 Average	80.3	79.8	78.5	77.9	77.3	78.7	77.4
		-----Year-Over-Year, % Change-----					Five-Year Averages	
		2016	2017	2018	2019	2020	2016-2020	2021-2025
B. Real GDP	CONSENSUS	2.8	2.8	2.6	2.4	2.4	2.6	2.3
	Top 10 Average	3.2	3.1	2.9	2.8	2.7	2.9	2.6
	Bottom 10 Average	2.6	2.4	2.3	1.8	2.0	2.2	2.0
C. GDP Chained Price Index	CONSENSUS	2.0	2.2	2.2	2.1	2.1	2.1	2.1
	Top 10 Average	2.3	2.7	2.6	2.5	2.4	2.5	2.5
	Bottom 10 Average	1.7	1.8	1.8	1.8	1.8	1.8	1.8
D. Consumer Price Index	CONSENSUS	2.3	2.5	2.4	2.3	2.3	2.4	2.3
	Top 10 Average	2.7	3.1	3.0	2.8	2.7	2.8	2.7
	Bottom 10 Average	2.0	2.0	2.0	1.9	1.9	1.9	1.9

United Water Idaho Inc.
Derivation of Mean Equity Risk Premium Based on a Study
Using Holding Period Returns of Public Utilities

<u>Line No.</u>		<u>Over A Rated Moody's Public Utility Bonds (1)</u>
1.	Arithmetic Mean Holding Period Returns on the Standard & Poor's Utility Index 1928-2014 (2):	10.69 %
2.	Arithmetic Mean Yield on Moody's A Rated Public Utility Yields 1928-2014	<u>(6.48)</u>
3.	Historical Equity Risk Premium	4.21 %
4.	Forecasted Equity Risk Premium Based on PRPM™ (3)	4.48
5.	Forecasted Equity Risk Premium based on Projected Total Return on the S&P Utilities Index (4)	<u>5.71</u>
6.	Average of Historical and PRPM™ Equity Risk Premium	<u><u>4.80 %</u></u>

- Notes: (1) Based on S&P Public Utility Index monthly total returns and Moody's Public Utility Bond average monthly yields from 1928-2014.
- (2) 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.
- (3) The Predictive Risk Premium Model (PRPM) is applied to the risk premium of the monthly total returns of the S&P Utility Index and the monthly yields on Moody's A rated public utility bonds from January 1928 - March 2015.
- (4) Using data from Bloomberg Professional Service for the S&P Utilities Index, an expected return of 10.55% was derived based on expected dividend yields and long-term growth estimates as a proxy for market appreciation. Subtracting the expected A rated public utility bond yield of 4.84%, calculated on line 3 of page 3 of this Schedule results in an equity risk premium of 5.71%. (10.55% - 4.84% = 5.71%)

United Water Idaho Inc.
Indicated Common Equity Cost Rate Through Use
of the Traditional Capital Asset Pricing Model (CAPM) and Empirical Capital Asset Pricing Model (ECAPM)

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Eight Water Companies	Value Line Adjusted Beta	Bloomberg Adjusted Beta	Average Beta	Market Risk Premium (1)	Risk-Free Rate (2)	Traditional CAPM Cost Rate	ECAPM Cost Rate	Indicated Common Equity Cost Rate (3)
American States Water Co.	0.70	0.78	0.74	7.23 %	3.68 %	9.03 %	9.50 %	
American Water Works Co., Inc.	0.70	0.60	0.65	7.23	3.68	8.38	9.01	
Aqua America, Inc.	0.70	0.77	0.74	7.23	3.68	9.03	9.50	
California Water Service Group	0.75	0.78	0.77	7.23	3.68	9.25	9.66	
Connecticut Water Service, Inc.	0.65	0.71	0.68	7.23	3.68	8.60	9.17	
Middlesex Water Company	0.75	0.78	0.77	7.23	3.68	9.25	9.66	
SJW Corporation	0.80	0.87	0.84	7.23	3.68	9.75	10.04	
York Water Company	0.70	0.92	0.81	7.23	3.68	9.54	9.88	
Average			0.75			9.10 %	9.55 %	9.33 %
Median			0.76			9.14 %	9.58 %	9.36 %
Average of Mean and Median			0.76					9.35 %

Notes:

(1) The market risk premium (MRP) is an average of four different measures. The first measure of the MRP derives the total return on the market by adding the thirteen-week average forecasted 3-5 year capital appreciation to the thirteen-week average expected dividend yield from Value Line Summary and Index. The projected risk-free rate (developed in Note 2) is then subtracted from the total return to arrive at the projected MRP. The second measure of MRP is based on the arithmetic mean of historical monthly return data of large company stocks less the income return on long-term government bonds from 1926-2014 as published by Morningstar, Inc. The third measure applies the PRPM to the Ibbotson historical data to derive a projected MRP. The fourth measure uses data from Bloomberg Professional Services to derive a total projected return on the S&P 500 by using expected dividend yields and long-term growth estimates as a proxy for capital appreciation. The projected risk-free rate is then subtracted from the projected total return to arrive at the projected MRP. The four measures of MRP are illustrated below:

Measure 1: Value Line Projected MRP (Thirteen weeks ending 3/27/15)

Total projected return on the market 3 -5 years hence:	9.41 %
Projected Risk-Free Rate (described in Note 2):	3.68
MRP based on Value Line Summary & Index:	<u>5.73 %</u>

Measure 2: Ibbotson Arithmetic Mean MRP (1926 - 2014)

Arithmetic Mean Monthly Returns for Large Stocks 1926 - 2014:	12.07 %
Arithmetic Mean Income Returns on Long-Term Government Bonds:	5.23
MRP based on Ibbotson Historical Data:	<u>6.84 %</u>

Measure 3: Application of the PRPM to Ibbotson Historical Data:
(January 1926 - February 2015)

7.19 %

Measure 4: Bloomberg Projected MRP

Total return on the Market based on the S&P 500:	12.86 %
Projected Risk-Free Rate (described in Note 2):	3.68
MRP based on Bloomberg data	<u>9.18 %</u>

Average MRP: 7.23 %

(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 9 and 10 of Schedule (PMA-6) The projection of the risk-free rate is illustrated below:

Second Quarter 2015	2.70 %
Third Quarter 2015	2.90
Fourth Quarter 2015	3.10
First Quarter 2016	3.40
Second Quarter 2016	3.60
Third Quarter 2016	3.70
2016-2020	4.90
2021-2025	5.10
	<u>3.68 %</u>

(3) Average of Column 6 and Column 7.

Sources of Information:

Value Line Summary and Index
Blue Chip Financial Forecasts April 1, 2015 and December 1, 2014
Stocks, Bonds, Bills, and Inflation - Ibbotson® S&B® 2015 Market Report, Morningstar, Inc., 2015 Chicago, IL.
Bloomberg Professional Services

United Water Idaho Inc.
Basis of Selection of the Group of Non-Price Regulated Companies
Comparable in Total Risk to the Proxy Group of Eight Water Companies

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

The proxy group of eighteen non-price regulated companies were then selected based upon the unadjusted beta range of 0.41 – 0.67 and residual standard error of the regression range of 2.1073 – 2.5133 of the water proxy group.

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

The standard deviation of the water industry's residual standard error of the regression is 0.1015. 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

$$\text{Thus, } 0.1015 = \frac{2.3103}{\sqrt{518}} = \frac{2.3103}{22.7596}$$

Source of Information: Value Line, Inc., April 2015
Value Line Investment Survey (Standard Edition)

United Water Idaho Inc.
Basis of Selection of Comparable Risk
Domestic Non-Price Regulated Companies

	[1]	[2]	[3]	[4]
<u>Proxy Group of Eight Water Companies</u>	<u>Value Line Adjusted Beta</u>	<u>Unadjusted Beta</u>	<u>Residual Standard Error of the Regression</u>	<u>Standard Deviation of Beta</u>
American States Water Co.	0.70	0.53	2.6459	0.0766
American Water Works Co., Inc.	0.70	0.50	1.8756	0.0543
Aqua America, Inc.	0.70	0.54	1.9717	0.0571
California Water Service Group	0.75	0.56	2.0221	0.0585
Connecticut Water Service, Inc.	0.65	0.46	2.5962	0.0752
Middlesex Water Company	0.75	0.55	2.2258	0.0644
SJW Corporation	0.80	0.66	2.6762	0.0775
York Water Company	0.70	0.51	2.4686	0.0715
Average	<u>0.72</u>	<u>0.54</u>	<u>2.3103</u>	<u>0.0669</u>
Beta Range (+/- 2 std. Devs. of Beta)	0.41	0.67		
2 std. Devs. of Beta	0.13			
Residual Std. Err. Range (+/- 2 std. Devs. of the Residual Std. Err.)	2.1073	2.5133		
Std. dev. of the Res. Std. Err.	0.1015			
2 std. devs. of the Res. Std. Err.	0.2030			

Source of Information: Valueline Proprietary Database April 2015

United Water Idaho Inc.
Proxy Group of Non-Price Regulated Companies
Comparable in Total Risk to the
Proxy Group of Eight Water Companies

	[1]	[2]	[3]	[4]
<u>Proxy Group of Eighteen Non-Price-Regulated Companies</u>	<u>VL Adjusted Beta</u>	<u>Unadjusted Beta</u>	<u>Residual Standard Error of the Regression</u>	<u>Standard Deviation of Beta</u>
AmerisourceBergen	0.75	0.58	2.1555	0.0624
Bard (C.R.)	0.80	0.64	2.1297	0.0617
Bristol-Myers Squibb	0.75	0.58	2.4884	0.0720
ConAgra Foods	0.65	0.46	2.2076	0.0639
Dr Pepper Snapple	0.65	0.45	2.4199	0.0701
Kroger Co.	0.75	0.57	2.3917	0.0692
Lancaster Colony	0.80	0.64	2.3710	0.0686
Laboratory Corp.	0.80	0.64	2.1797	0.0631
McKesson Corp.	0.75	0.56	2.2152	0.0641
Mercury General	0.70	0.48	2.3959	0.0694
Merck & Co.	0.75	0.55	2.1934	0.0635
Reynolds American	0.65	0.45	2.1463	0.0621
Sherwin-Williams	0.80	0.66	2.3786	0.0689
Silgan Holdings	0.80	0.64	2.4523	0.0710
Target Corp.	0.70	0.50	2.2498	0.0651
TJX Companies	0.75	0.60	2.2009	0.0637
Verisk Analytics	0.65	0.47	2.1661	0.0627
Weis Markets	0.70	0.52	2.2784	0.0660
Average	<u>0.73</u>	<u>0.56</u>	<u>2.2789</u>	<u>0.0660</u>
Proxy Group of Eight Water Companies	<u>0.72</u>	<u>0.54</u>	<u>2.3103</u>	<u>0.0669</u>

United Water Idaho Inc.
 Summary of Cost of Equity Models Applied to the
 Proxy Group of Non-Price-Regulated Companies
 Comparable in Total Risk to the
Proxy Group of Eight Water Companies

Principal Methods	Proxy Group of Eighteen Non- Price-Regulated Companies
Discounted Cash Flow Model (DCF) (1)	11.85 %
Risk Premium Model (RPM) (2)	10.29
Capital Asset Pricing Model (CAPM) (3)	<u>9.54</u>
	Mean <u>10.56</u> %
	Median <u>10.29</u> %
	Average of Mean and Median <u>10.43</u> %

Notes:

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

United Water Idaho Inc.
DCF Results for the Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to
the Proxy Group of Eight Water Companies

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Eighteen Non-Price-Regulated Companies	Average Dividend Yield	Value Line Projected Five Year Growth in EPS	Reuters Mean Consensus Projected Five Year Growth Rate in EPS	Zack's Five Year Projected Growth Rate in EPS	Yahoo! Finance Projected Five Year Growth in EPS	Average Projected Five Year Growth Rate in EPS	Adjusted Dividend Yield	Indicated Common Equity Cost Rate
AmerisourceBergen	1.15 %	14.00 %	10.90 %	12.90 %	10.90 %	12.18 %	1.22 %	13.40 %
Bard (C.R.)	0.51	10.00	11.45	12.10	11.32	11.22	0.54	11.76
Bristol-Myers Squibb	2.36	14.50	16.15	15.10	16.15	15.48	2.54	18.02
ConAgra Foods	2.82	7.00	8.70	7.50	8.47	7.92	2.93	10.85
Dr Pepper Snapple	-	8.50	7.86	7.30	7.86	7.88	-	NA
Kroger Co.	1.03	10.50	10.68	10.20	10.68	10.52	1.08	11.60
Lancaster Colony	2.01	5.50	NA	NA	8.00	6.75	2.08	8.83
Laboratory Corp.	-	7.50	10.85	10.30	9.90	9.64	-	NA
McKesson Corp.	0.43	15.00	21.50	16.10	17.17	17.44	0.47	17.91
Mercury General	-	8.50	8.20	8.20	8.20	8.28	-	NA
Merck & Co.	2.96	4.00	5.12	7.10	5.12	5.34	3.04	8.38
Reynolds American	-	9.50	9.35	9.30	9.35	9.38	-	NA
Sherwin-Williams	-	13.00	18.30	14.20	15.53	15.26	-	NA
Silgan Holdings	1.08	9.00	7.11	9.30	8.56	8.49	1.13	9.62
Target Corp.	2.69	8.00	12.43	11.20	12.08	8.00	2.80	10.80
TJX Companies	1.03	11.00	9.98	11.90	10.65	10.88	1.09	11.97
Verisk Analytics	-	12.00	11.33	12.80	12.25	12.10	-	NA
Weis Markets	-	1.00	NA	NA	NA	1.00	-	NA
							Mean	12.10 %
							Median	11.60 %
							Average of Mean and Median	11.85 %

NA= Not Available
NMF= Not Meaningful Figure

- (1) Ms. Ahern's application of the DCF model to the domestic, non-price regulated comparable risk companies is identical to the application of the DCF to her proxy group of water companies. she uses the 60 day average price and the spot indicated dividend as of March 31, 2015 for her dividend yield and then adjusts that yield for 1/2 the average projected growth rate in EPS, which is calculated by averaging the 5 year projected growth in EPS provided by Value Line, www.reuters.com, www.zacks.com, and www.yahoo.com (excluding any negative growth rates) and then adding that growth rate to the adjusted dividend yield.

Source of Information: Value Line Investment Survey:
www.reuters.com Downloaded on 03/31/2015
www.zacks.com Downloaded on 03/31/2015
www.yahoo.com Downloaded on 03/31/2015

United Water Idaho Inc.
 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 Eighteen Non-Price- Regulated Companies</u>
1.	Prospective Yield on Baa Rated Corporate Bonds (1)	5.58 %
2.	Adjustment to Reflect Bond rating Difference of Non-Price Regulated Companies (2)	<u>(0.24)</u>
3.	Adjusted Prospective Bond Yield	5.34
4.	Equity Risk Premium (3)	<u>4.95</u>
5.	Risk Premium Derived Common Equity Cost Rate	<u><u>10.29 %</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 April 1, 2015 and December 1, 2014 (see pages 9-10 of (Schedule PMA-6)). The estimates are detailed below.

Second Quarter 2015	4.60 %
Third Quarter 2015	4.80
Fourth Quarter 2015	5.10
First Quarter 2016	5.30
Second Quarter 2016	5.50
Third Quarter 2016	5.70
2016-2020	6.60
2021-2025	<u>7.00</u>
Average	<u><u>5.58 %</u></u>

(2) The average yield spread of Baa rated corporate bonds over A corporate bonds for the three months ending March 2014. To reflect the A3 average rating of the non-utility proxy group, the prospective yield on A corporate bonds must be adjusted by 1/3 of the spread between A and Baa corporate bond yields as shown below:

	A Corp. Bond Yield		Baa Corp. Bond Yield		Spread
Jan-15	3.70 %		4.45 %		0.75 %
Feb-15	3.81		4.51		0.70
Mar-15	3.85		4.54		<u>0.69</u>
	Average yield spread				<u>0.71 %</u>
	1/3 of spread				<u><u>0.24 %</u></u>

(3) From page 5 of this Schedule.

United Water Idaho Inc.
Comparison of Long-Term Issuer Ratings for the
Proxy Group of Non-Price-Regulated Companies Comparable in Total Risk to the
Proxy Group of Eight Water Companies

<u>Proxy Group of Eighteen Non-Price-Regulated Companies</u>	<u>Moody's</u> <u>Long-Term Issuer Rating</u> <u>March 2015</u>		<u>Standard & Poor's</u> <u>Long-Term Issuer Rating</u> <u>March 2015</u>	
	<u>Bond Rating</u>	<u>Numerical Weighting (1)</u>	<u>Bond Rating</u>	<u>Numerical Weighting (1)</u>
AmerisourceBergen	Baa2	9.0	A-	7.0
Bard (C.R.)	Baa1	8.0	A	6.0
Bristol-Myers Squibb	A2	6.0	A+	5.0
ConAgra Foods	Baa2	9.0	BBB-	10.0
Dr Pepper Snapple	Baa1	8.0	BBB+	8.0
Kroger Co.	Baa2	9.0	BBB	9.0
Lancaster Colony	NR	--	NR	--
Laboratory Corp.	Baa2	9.0	BBB	9.0
McKesson Corp.	Baa2	9.0	BBB+	8.0
Mercury General	WR	--	NR	--
Merck & Co.	A2	6.0	AA	3.0
Reynolds American	Baa2	9.0	BBB-	10.0
Sherwin-Williams	A3	7.0	A	6.0
Silgan Holdings	Ba2	12.0	BB+	11.0
Target Corp.	A2	6.0	A	6.0
TJX Companies	A3	7.0	A+	5.0
Verisk Analytics	Baa3	10.0	BBB-	10.0
Weis Markets	NR	--	NR	--
Average	<u>Baa1</u>	<u>8.3</u>	<u>A3/BBB+</u>	<u>7.5</u>

Notes:

(1) From page 6 of Schedule (PMA-6).

Source of Information:

Bloomberg Professional Services

United Water Idaho Inc.
Derivation of Equity Risk Premium Based on the Total Market Approach
Using the Beta for
the Proxy Group of Non-Price-Regulated Companies
Proxy Group of Eight Water Companies

<u>Line No.</u>	<u>Equity Risk Premium Measure</u>	<u>Proxy Group of Eighteen Non-Price- Regulated Companies</u>
1.	Ibbotson Equity Risk Premium (1)	5.89 %
2.	Ibbotson Equity Risk Premium based on PRPM (1)	6.37
3.	Equity Risk Premium Based on <u>Value Line</u> Summary and Index (1)	4.67
4.	Equity Risk Premium Based on S&P 500 Companies(1)	<u>8.12</u>
5.	Conclusion of Equity Risk Premium (2)	6.26 %
6.	Adjusted Beta (3)	<u>0.79</u>
7.	Forecasted Equity Risk Premium	<u><u>4.95 %</u></u>

- Notes:
- (1) From page 8 of Schedule (PMA-6).
 - (2) Average of Lines 1 through 4.
 - (3) Average of mean and median beta from page 5 of this Schedule.

Sources of Information:

Ibbotson® S&P® 2014 Classic Yearbook - Market Results for Stocks, Bonds, Bills, and Inflation, Morningstar, Inc., 2014 Chicago, IL.

Value Line Summary and Index

Blue Chip Financial Forecasts, April 1, 2015 and December 1, 2014

Bloomberg Professional Services

United Water Idaho Inc.

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

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Proxy Group of Eighteen 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)
AmerisourceBergen	0.75	0.80	0.78	7.23 %	3.68 %	9.32 %	9.72 %	
Bard (C.R.)	0.80	0.91	0.86	7.23	3.68	9.90	10.15	
Bristol-Myers Squibb	0.75	0.88	0.81	7.23	3.68	9.54	9.88	
ConAgra Foods	0.65	0.67	0.66	7.23	3.68	8.45	9.07	
Dr Pepper Snapple	0.65	0.87	0.76	7.23	3.68	9.17	9.61	
Kroger Co.	0.75	0.79	0.77	7.23	3.68	9.25	9.66	
Lancaster Colony	0.80	0.92	0.86	7.23	3.68	9.90	10.15	
Laboratory Corp.	0.80	0.80	0.80	7.23	3.68	9.46	9.83	
McKesson Corp.	0.75	0.89	0.82	7.23	3.68	9.61	9.93	
Mercury General	0.70	0.69	0.70	7.23	3.68	8.74	9.28	
Merck & Co.	0.75	0.78	0.76	7.23	3.68	9.17	9.61	
Reynolds American	0.65	0.83	0.74	7.23	3.68	9.03	9.50	
Sherwin-Williams	0.80	0.96	0.88	7.23	3.68	10.04	10.26	
Silgan Holdings	0.80	0.83	0.82	7.23	3.68	9.61	9.93	
Target Corp.	0.70	0.84	0.77	7.23	3.68	9.25	9.66	
TJX Companies	0.75	0.89	0.82	7.23	3.68	9.61	9.93	
Verisk Analytics	0.65	0.91	0.78	7.23	3.68	9.32	9.72	
Weis Markets	0.70	0.84	0.77	7.23	3.68	9.25	9.66	
Mean			<u>0.79</u>			<u>9.37 %</u>	<u>9.75 %</u>	<u>9.56</u>
Median			<u>0.78</u>			<u>9.32 %</u>	<u>9.72 %</u>	<u>9.52</u>
Average of Mean and Median			<u>0.79</u>					<u>9.54 %</u>

Notes:

(1) From Schedule (PMA-7), note 1.

(2) From Schedule (PMA- 7), note 2.

(3) Average of CAPM and ECAPM cost rates.

United Water Idaho Inc.
Derivation of Investment Risk Adjustment Based upon
Ibbotson Associates' Size Premia for the Decile Portfolios of the NYSE/AMEX/NASDAQ

Line No.	[1] Market Capitalization on March 31, 2015 (1) (millions)	[2] Applicable Decile of the NYSE/AMEX/ NASDAQ (2)	[3] Applicable Size Premium (3)	[4] Spread from Applicable Size Premium (4)
1.	United Water Idaho Inc. \$ 201,415	10	5.78%	
2.	Proxy Group of Eight Water Companies \$ 2,349,349	6	1.74%	4.04%

(A) Decile	(B) Number of Companies (millions)	(C) Recent Total Market Capitalization (millions)	(D) Recent Average Market Capitalization (millions)	(E) Size Premium (Return in Excess of CAPM) (2)
Largest	1	\$ 14,808,784,274	\$ 77,532,902	-0.36%
	2	3,247,447,914	15,612,730	0.63%
	3	1,579,432,904	7,976,934	0.91%
	4	1,042,428,212	4,695,623	1.06%
	5	694,147,086	3,126,789	1.60%
	6	585,657,120	2,153,151	1.74%
	7	449,325,225	1,391,100	1.71%
	8	333,731,801	792,712	2.15%
	9	173,673,205	420,516	2.69%
Smallest	10	135,401,288	142,378	5.78%

*From Duff & Phelps 2015 Valuation Handbook Guide to Cost of Capital

Notes:

- (1) From Page 2 of this Schedule.
- (2) Gleaned from Column (D) 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.
- (3) Corresponding risk premium to the decile is provided on Column (E) on the bottom of this page.
- (4) Line No. 1a Column 3 - Line No. 2 Column 3 and Line No. 1b, Column 3 - Line No. 3 of Column 3 etc.. For example, the 4.04% in Column 4, Line No. 2 is derived as follows 4.04% = 2.69% - 1.74%.

United Water Idaho Inc.
Market Capitalization of United Water Idaho Inc. and
the Proxy Group of Eight Water Companies

Company	Exchange	[1] Common Stock Shares Outstanding at Fiscal Year End 2014 (millions)	[2] Book Value per Share at Fiscal Year End 2014 (1)	[3] Total Common Equity at Fiscal Year End 2014 (millions)	[4] Closing Stock Market Price on March 31, 2015	[5] Market-to- Book Ratio on March 31, 2015 (2)	[6] Market Capitalization on March 31, 2015 (3) (millions)
United Water of Idaho		NA	NA	88,612 (4)	NA		
Based upon the Proxy Group of Eight Water Companies							
Proxy Group of Eight Water Companies						227.3 (5)	\$ 201,415 (6)
American States Water Co.	NYSE	38,287	\$ 13.237	\$ 506,801	\$ 39,890	301.4 %	\$ 1,527,254
American Water Works Co., Inc.	NYSE	179,462	\$ 27.391	\$ 4,915,591	\$ 54,210	197.9	\$ 9,728,635
Aqua America, Inc.	NYSE	176,753	\$ 9.365	\$ 1,655,343	\$ 26,350	281.4	\$ 4,657,449
California Water Service Group	NYSE	47,806	\$ 13.108	\$ 626,626	\$ 24,510	187.0	\$ 1,171,725
Connecticut Water Service, Inc.	NASDAQ	11,125	\$ 18.897	\$ 210,223	\$ 36,330	192.3	\$ 404,158
Middlesex Water Company	NASDAQ	16,124	\$ 12.236	\$ 197,291	\$ 22,760	186.0	\$ 366,982
SJW Corporation	NYSE	20,287	\$ 17.753	\$ 360,155	\$ 30,910	174.1	\$ 627,066
York Water Company	NASDAQ	12,831	\$ 8.150	\$ 104,563	\$ 24,280	297.9	\$ 311,525
Average		62,834	\$ 15.017	\$ 1,072,074	\$ 32,405	227.3 %	\$ 2,349,349

NA= Not Available

- Notes: (1) Column 3 / Column 1.
(2) Column 4 / Column 2.
(3) Column 5 * Column 3.

(4) From United Water Idaho Inc. Annual Report to the Idaho Public Utilities Commission for the year ended December 31, 2014.
(5) The market-to-book ratio of United Water Idaho Inc. on March 31, 2015 is assumed to be equal to the market-to-book ratio of the Proxy Group of Eight Water Companies at March 31, 2015.

(6) United Water Idaho Inc.'s common stock, if traded, would trade at a market-to-book ratio equal to the average market-to-book ratio at March 31, 2015 of the Proxy Group of Eight Water Companies, 227.3%, and United Water Idaho Inc.'s market capitalization on March 31, 2015 would therefore have been \$201,415 million.

Source of Information: 2014 Annual Forms 10K
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