Exhibit No.:	
Issues:	Rate of Return
Witness:	Matthew J. Barnes
Sponsoring Party:	MoPSC Staff
Type of Exhibit:	Rebuttal Testimony
Case No.:	WR-2011-0337
Date Testimony Prepared:	January 19, 2012

MISSOURI PUBLIC SERVICE COMMISSION

TARIFF, SAFETY, ECONOMIC, AND ENGINEERING ANALYSIS DEPARTMENT

REGULATORY REVIEW DIVISION

REBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

Jefferson City, Missouri
January 2012

<u>Denotes Highly Confidential Information</u>

NP

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Request for Authority to Implement A General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas	)))))	Case No. WR-2011-0337

AFFIDAVIT OF MATTHEW J. BARNES

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Matthew J. Barnes, of lawful age, on his oath states: that he has participated in the preparation of the following Rebuttal Testimony in question and answer form, consisting of 17 pages of Rebuttal Testimony to be presented in the above case, that the answers in the following Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

Matthew J. Barnes

Subscribed and sworn to before me this 18th day of January, 2012.

LAURA HOLSMAN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: June 21, 2015
Commission Number: 11203914

Notary Public

TABLE OF CONTENTS OF

REBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

EXECUTIVE SUMMARY 1

CORRECTIONS 3

MS. AHERN'S RECOMMENDED CAPITAL STRUCTURE FOR MAWC AND WEIGHTED AVERAGE COST OF CAPITAL ESTIMATES 4

MS. AHERN'S RECOMMENDED COST OF COMMON EQUITY FOR MAWC 8

SUMMARY AND CONCLUSIONS 16

REBUTTAL TESTIMONY

OF

MATTHEW J. BARNES

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

Q. Please state your name.

A. My name is Matthew J. Barnes.

Q. What is the purpose of your Rebuttal Testimony?

A. The purpose of my Rebuttal Testimony is to respond to the Direct Testimony of Ms. Pauline M. Ahern, who sponsored rate of return (ROR) testimony on behalf of Missouri-American Water Company (MAWC or Company). I will address the issues of appropriate capital structure, embedded cost of long-term debt, and the cost of common equity to be applied to MAWC for ratemaking purposes in this proceeding.

EXECUTIVE SUMMARY

Q. Please provide an executive summary of your rebuttal testimony.

A. First, I will provide corrections to the Staff's recommended return on equity (ROE) and ROR in this case. After filing the Staff Cost of Service Report on November 17, 2011, Staff found two corrections that affect its recommended ROE and ROR.

Next, I will address Ms. Ahern's capital structure recommendation. Ms. Ahern's proposed use of MAWC's capital structure for ratemaking purposes in this case is inappropriate. It does not reflect the reality of how MAWC is, and will be financed. MAWC does not have a stand-alone credit rating, has centralized most of its financing functions through its affiliate, American Water Capital Corporation (AWCC), can receive equity

infusions through debt raised at American Water Company (American Water), and the debt provided by AWCC is based on American Water's consolidated creditworthiness. Because American Water is predominately a regulated water utility, it is appropriate to use the parent company's capital structure in this case because it is consistent with the way in which American Water believes its regulated water utility operations should be capitalized.

I will then address certain areas about Ms. Ahern's specific cost of common equity methodologies. Ms. Ahern suggests that a small size risk premium adjustment needs to be made to her final results. I will provide support from a third party used by American Water for valuation purposes that did not believe a small size adjustment was appropriate due to the regulated nature of American Water's water utility operations.

Ms. Ahern uses projected yields to estimate the cost of common equity using the Risk Premium Model (RPM) and Capital Asset Pricing Model (CAPM) methodologies. This use is inappropriate for much the same reason that using projected stock prices in the Discounted Cash Flow (DCF) model is inappropriate. The current yields reflected in bond prices reflect investors' expectations of the future. Staff does not believe it is appropriate to substitute projected interest rates for yields currently required by investors.

Additionally, Ms. Ahern uses arithmetic averages rather than geometric averages to measure historical equity risk premiums, which under normal capital market conditions will tend to cause an upward bias in estimating the costs of common equity for both her risk premium analysis and CAPM analysis. Staff will explain later as to why it is more appropriate to use geometric averages when evaluating long-term asset classes, such as utility stocks.

Finally, Ms. Ahern supplements her water utility cost of equity estimates by using a proxy group of forty-one non-utility companies comparable in total risk to her proxy group of nine water companies referred to in her testimony as Market Models Applied to Comparable Risk, Non-Price Regulated Companies (Non-utility Company Analysis) using the DCF, RPM, CAPM and a Comparable Earnings Analysis to recommend a cost of common equity for MAWC. Staff will explain later in more detail as to why the Missouri Public Service Commission (Commission) should reject Ms. Ahern's Non-utility Company Analysis.

CORRECTIONS

Q. Do you have any corrections you need to make to the ROR Section of Staff's Cost of Service Report?

A. Yes. After filing Staff's Cost of Service Report on November 17, 2011, Staff discovered two corrections that initially should have been included in the ROR Section of Staff's Cost of Service Report. The first correction is the calculation of the embedded cost of long-term debt. Staff inadvertently double-counted debt held at MAWC that is also held at AWCC.

Q. What impact does this have on your embedded cost of long-term debt?

A. The impact reduces the embedded cost of long-term debt from 6.19 percent to 6.16 percent, or three basis points. Please see Corrected Schedule 8, attached hereto, for the specific embedded cost of long-term debt calculation.

Q. What is the second correction?

A. The second correction is the inclusion of projected 3-5 year earnings per share growth rates from Value Line for Connecticut Water Service Inc, Middlesex Water Company,

and York Water Company that initially should have been included in the ROR Section of Staff's Cost of Service Report.

Q. What impact does this correction have on your ROE?

A. The impact reduces the return on equity from 9.40 percent to 10.40 percent with a mid-point of 9.90 percent to 8.95 percent to 9.95 percent with a mid-point of 9.45 percent, or 45 basis points. Please see Corrected Schedule 17, attached hereto, for the specific ROE calculation.

Q. What impact do these two corrections have on Staff's overall ROR?

A. The impact of these two corrections reduces Staff's overall ROR from 7.58 percent to 8.01 percent with a mid-point of 7.79 percent to 7.37 percent to 7.80 percent with a mid-point of 7.58 percent, or 21 basis points. Please see Corrected Schedule 21, attached hereto, for the specific ROR calculation.

MS. AHERN'S RECOMMENDED CAPITAL STRUCTURE FOR MAWC AND WEIGHTED AVERAGE COST OF CAPITAL ESTIMATES

Q. What capital structure does Ms. Ahern recommend for MAWC?

A. Ms. Ahern recommends the use of MAWC's estimated capital structure as of December 31, 2011. As shown in Table 1 on page 4 of Ms. Ahern's Direct Testimony, this capital structure is expected to consist of 50.37 percent common equity, 0.27 percent preferred stock, and 50.37 percent long-term debt.

Q. Why is it inappropriate to use MAWC's capital structure for ratemaking purposes in this case?

A. It is inappropriate to use MAWC's capital structure for ratemaking purposes in this case because MAWC no longer issues its own debt. This change occurred when American Water created its financing subsidiary AWCC. Although there are internal loan

documents between MAWC and AWCC, AWCC is the entity that is actually issuing the debt to third parties on a consolidated basis on behalf of American Water's subsidiaries. Additionally, AWCC acts as the corporate treasury for American Water, in that it also aggregates all of the cash receipts and disbursement functions for its subsidiaries.

Q. What is MAWC's financing arrangement with AWCC?

A. As stated in Paragraph 13 of Missouri-American's Application filed in Case No. WF-2002-1096:

> Applicant [MAWC] proposes to implement some or all of the long-term debt portion of its financing program primarily through an affiliate, American Water Capital Corp. ("AWCC"). AWCC is a wholly-owned subsidiary of American Water Works Company, Inc., ("AWW") established for the purpose of providing financial services to AWW and its water and wastewater utility subsidiaries (including Applicant) by pooling the financing requirements of such companies (the "Participants"), thereby creating larger and more cost efficient debt issues at more attractive interest rates and lower transaction costs then would otherwise be available.

The Application goes on further to state in Paragraph 14:

> In the past, Applicant, and its constituent predecessors in interest, provided for debt financing needs primarily through short-term bank borrowings and the sale by private placement of long-term bonds issued pursuant to mortgages on plant and property in this State including the Indenture of Mortgage and, when available, tax exempt bond issues. Changes in financial markets and federal securities regulation have made the public securities market an attractive alternative to the traditional, secured privately placed bonds and bank borrowings upon which Applicant has traditionally relied. However, borrowers can derive the benefits of the public market only if the amounts they borrow are large enough, and their credit rating high enough, to meet that market's significant entry level requirements. Standing alone, Applicant does not have the borrowing requirements large enough to finance in the public markets. However, by financing through AWCC, Applicant and its sister companies in other states have sufficient borrowing power to finance in the public market and thereby obtain the advantageous terms available therein.

Paragraph 15 goes on further to state:

> Generally, each year the Participants provide AWCC with an estimate of the borrowing requirements which they propose to finance through AWCC for the coming year and for one (1) to three (3) years in advance. On the basis of this information, AWCC arranges borrowing commitments and programs to provide the funds necessary to meet these requirements. All long-term debt incurred by AWCC and the corresponding long-term indebtedness of each Participant will be match-funded. That is to say, AWCC borrows long term funds only to meet specific borrowing needs of one or more participants.

Q. How does Standard and Poor's (S&P) evaluate the creditworthiness of American Water and MAWC?

A. S&P does not issue a credit rating for MAWC, but it does issue a credit rating on American Water. The credit analysis performed by S&P is based on the consolidated credit risk profile of American Water, which is primarily based on its regulated subsidiaries, but also includes some non-regulated operations. Staff asserts that if S&P did assign a credit rating to MAWC, it would be based on the consolidated operations of American Water. As long as the risk associated with the consolidated operations is consistent with MAWC's risk, then it is appropriate to not only use the consolidated capital structure, but also the cost of capital associated with this capital structure for ratemaking purposes.

Q. Does the consolidation of financing needs through AWCC make MAWC's capital structure inappropriate for purposes of recommending a fair and reasonable ROR for MAWC?

A. Yes, because AWCC is more or less acting like the treasury for American Water, the inflows and outflows of funds at AWCC become commingled with those funds that are being used for all sorts of purposes by American Water and its subsidiaries.

For example, American Water receives debt from AWCC just as its subsidiaries do. American Water uses this debt to make equity contributions to its subsidiaries. As such, these transactions result in the appearance of less-leveraged capital structures for the subsidiaries.

Alternatively, American Water's subsidiaries could have received this capital by executing internal loan documents with AWCC. If the capital had been infused into the subsidiaries in this manner, then the subsidiaries' capital structures would be more consistent with the amount of financial risk that American Water's subsidiaries could optimally incur. Because American Water's capital structure directly affects the cost of capital that is available to its subsidiaries because this is a market-driven capital structure, it is unlikely that American Water would manage this capital structure in an imprudent manner, whether with too much leverage or not enough. Consequently, the use of the consolidated capital structure for ratemaking purposes is most likely to produce a ROR that is consistent with the cost of capital associated with MAWC's risk profile.

Q. What other reasons support Staff's use of American Water's consolidated capital structure rather than MAWC's capital structure?

A. American Water's operations are largely confined to regulated water utility operations. According to a July 26, 2011, S&P research report published on American Water, the company's regulated water utility subsidiaries represent about 89 percent of total revenues and 95 percent of adjusted earnings before interest and taxes (EBITDA) for the past three years. S&P has assigned American Water an "excellent" business risk profile based in large part on the stability of its regulated operations. If S&P believed American Water had a significant amount of riskier non-regulated operations, then this would most likely result in a lower business risk profile being assigned to American Water for purposes of assigning a corporate credit rating.

MS. AHERN'S RECOMMENDED COST OF COMMON EQUITY FOR MAWC

Q. Can you summarize Ms. Ahern's recommended cost of common equity for MAWC?

A. Yes. Ms. Ahern utilized the DCF model, the CAPM, the RPM, and the Non-utility Company Analysis to estimate the cost of common equity for MAWC. Ms. Ahern applied the DCF, CAPM and RPM to a water utility proxy group. Ms. Ahern then performed a Non-utility Company Analysis using the DCF, RPM, CAPM and a comparable earnings analysis. Ms. Ahern selected a non-utility proxy group in an effort to make the group comparable in risk to her water utility proxy group. Ms. Ahern summarizes her results on pages 3 through 6 of her Direct Testimony. The results range from a low of 9.54 percent based on her constant-growth DCF analysis to a high of 13.26 percent based on her Non-utility Company Analysis.

Ms. Ahern calculated a simple average of the cost of equity estimation methodologies she applied to her water utility proxy group to arrive at an estimated 10.85 percent cost of common equity. In order to arrive at her final cost of equity estimate for MAWC, Ms. Ahern makes three adjustments to her estimated cost of common equity.

Q. What is the first adjustment Ms. Ahern makes to her estimated cost of common equity?

A. Ms. Ahern's first adjustment to her estimated cost of common equity is a downward adjustment of seven basis points to reflect the difference in financial risk between MAWC's capital structure and her water utility proxy group's capital structure. Staff does not disagree with this adjustment.

Q. What is Ms. Ahern's second adjustment to her estimated cost of common equity?

A. Ms. Ahern's second adjustment to her estimated cost of common equity is a flotation cost adjustment upward of 12 basis points added to her ROE to reflect the costs associated with the issuance of stock. Staff disagrees with this adjustment, but it is currently inquiring more information from MAWC because Ms. Ahern did not make this adjustment in MAWC's previous two rate cases, File Nos. WR-2010-0131 and WR-2008-0311.

On January 12, 2012, Staff submitted the following Data Request 0278 concerning Ms. Ahern's flotation cost adjustment:

1. In Table 2 on Page 5 of Ms. Ahern's Direct Testimony, she makes an upward Flotation Cost Adjustment of 12 basis points to her return on equity. Staff understands that flotation costs for MAWC have historically been treated as an expense and recovered dollar for dollar and amortized over a certain period, typically 3 to 5 years.

   A. Did the Company recommend treatment for flotation costs as an expense other than an adjustment to ROE in this case?
   B. If not, why not?
   C. If so, are the flotation costs embedded in FERC Account 406 Amortized Intangible Financials on a total company basis?
   D. Please reconcile FERC Account 406 Amortized Intangible Financials by expense and dollar amount, i.e. Flotation Costs $XXX,XXX.

   As a reference, The Empire District Electric Company's Direct Testimony of W. Scott Keith, Page 12, Line 3 and Staff treated flotation costs as an expense and amortized over 5 years in the Company's last general rate case, File No. ER-2010-0130.

Staff does not expect an answer to its data request by the time Rebuttal Testimony is to be filed on January 19, 2012. Staff will address this issue in Surrebuttal Testimony expected to be filed on February 2, 2012.

Q. What is Ms. Ahern's third adjustment to her estimated cost of common equity?

A. Ms. Ahern's third adjustment to her estimated cost of common equity is a business risk adjustment of 40 basis points added to her ROE in order to consider MAWC's smaller size compared to her water utility proxy group.

Q. On page 67; line 13 through page 70; line 3, of her Direct Testimony, Ms. Ahern explains why she believes a small size risk adjustment needs to be made to her water utility proxy group's cost of common equity. What has been Staff's position in the past regarding the need for an adjustment to the cost of common equity to consider a utility company's smaller size relative to the proxy group?

A. Staff has consistently recommended to the Commission that it reject any adjustments to the cost of common equity because of a utility company's smaller size. Staff has maintained that the studies cited by company ROR witnesses were not based on an analysis of the regulated utility industry, but on all of the stocks in the New York Stock Exchange, the American Stock Exchange and the NASDAQ National Market.

Q. Does Staff have any information that supports its longstanding position?

A. Yes. In response to Staff Data Request 0151, MAWC provided certain valuation analyses that discussed whether it was appropriate to apply a small size risk premium to the initial estimated cost of common equity. The valuation analyses performed by

** _____

_____

_____

_____

_____

_____

_____ **

** _____

_____

_____

_____

NP

[redacted] **

** [redacted] **

** [redacted]

[redacted] **

After making the aforementioned adjustments to her initial cost of equity inputs for her water utility proxy group, Ms. Ahern recommends an 11.30 percent ROE for MAWC.

Q. Does Staff have any concerns with Ms. Ahern's analysis using the DCF model?

A. No. Although Ms. Ahern's DCF analysis does not consider historical growth rates for her water utility proxy group as Staff does, her DCF result of 9.54 percent is within Staff's range of 8.95 percent to 9.95 percent.

Q. Does Staff have any concerns with Ms. Ahern's analysis using the RPM?

A. Yes. Staff asserts it is more appropriate to use a recent average yield on utility bonds as the starting point in a risk premium analysis because investors' expectation of

NP

current yields for the same reason it is logical to use current stock prices in the DCF model. As with current stock prices, current yields reflect investors' required rates of return for future uncertainties. If an investor requires a yield of six percent on their investment in a bond today, they have done so based on their assessment of not only company-specific factors, such as credit risk, but also due to other macro risk factors such as the possibility of interest rate increases and decreases in the future. Using projected bond yields is akin to using projected stock prices when estimating the cost of equity using the DCF methodology. This violates the premise underlying the efficient market hypothesis, which is that asset prices reflect all known information.

Q. Does Staff have any concerns with Ms. Ahern's risk premium estimate using historical data?

A. Yes. Staff does not agree with Ms. Ahern's position that arithmetic means should be used when estimating the risk premium going forward. For the most part, it is assumed that investors in utility stocks are buying for the long-term. Investors are not buying and selling shares every year. Consequently, the investor should not be assumed to be realizing any of the gains and losses that occur year-to-year.

Q. Can you provide a simple example to illustrate why you do not believe investors use arithmetic means when determining the amount of risk premium they will require on a given stock or a portfolio of stocks?

A. Yes. Suppose that an investor makes a $1 stock investment over a three-year period. If an investor pays $1 for a stock in year one and then in year two the stock increases to $1.50, then the investor would have a 50 percent growth rate. Let us also assume that in year three, the price of the stock decreases by 50 percent to $.75. If an investor performed a

simple arithmetic average of these two returns, then they would think that they received zero percent [(50 percent + -50 percent)/2] growth in the investment over the three-year period. However, in reality the investor actually had a 25 percent decline in the investment over this three-year period. This is why using the arithmetic mean to measure risk premiums is questionable.

Q. You have given an intuitive reason as to why the geometric means are more realistic in measuring equity risk premiums, but Ms. Ahern cited Ibbotson Associates to support her claim that the arithmetic average should be used. Do you have any academic support for your use of the geometric mean?

A. Yes. The first is *Investment Analysis & Portfolio Management,* seventh edition, 2003, written by Frank K. Reilly and Keith C. Brown. Reilly and Brown stated the following:

> The geometric mean is appropriate for long-run asset class comparisons, whereas the arithmetic mean is what you would use to estimate the premium for a given year (e.g. the *expected* performance next year).

The second textbook is *INVESTMENT VALUATION: Tools and Techniques for Determining the Value of Any Asset,* 1996, written by Aswath Damodaran. Dr. Damodaran stated the following in his textbook:

> The geometric mean generally yields lower premium estimates than the arithmetic mean. In the context of valuation, where cash flows over a long time horizon are discounted back to the present, the geometric mean provides a better estimate of the risk premium. Thus, the premium of 5.50% (the geometric mean of the premium over Treasury bonds) is used throughout this book for calculating expected returns.

The third textbook is *Analysis of Equity Investments: Valuation,* 2002, written by John D. Stowe, Thomas R. Robinson, Jerald E. Pinto and Dennis W. McLeavey. The text states the following:

> In taking a historical approach, we face a choice between using the arithmetic mean return, (typically, the average of one-year rates of return) and using the geometric mean return (the compound rate of growth of the index over the study period). The arithmetic mean more accurately measures average on-period return; the geometric mean more accurately measures multi-period growth. The dilemma is that the CAPM (as well as the APT) is a single-period, suggesting the use of the arithmetic mean; but common stock investment often has a long time horizon, and valuation involves discounting cash flows over many periods, suggesting the use of geometric mean…
>
> …Although the debate is inconclusive, this book uses geometric means, not only for the previously given reasons but also because geometric means produce estimates of the equity risk premium that are more consistent with the predictions of economic theory.

Q. Do you have any concerns with Ms. Ahern's CAPM analysis?

A. Yes. My concerns about her CAPM analysis are much the same as my concerns regarding her risk premium analysis due to the fact that she uses projected risk-free rates rather than current risk-free rates. As I discussed previously, this is akin to using projected stock prices to determine a DCF cost of equity. However, because we are trying to determine investors' expectations, the more relevant data are current risk-free rates because this data already captures these expectations.

Q. Does the Non-utility Company Analysis performed by Ms. Ahern necessarily reflect the cost of common equity capital to her water utility proxy group?

A. No. Ms. Ahern's Non-utility Company Analysis is an assessment of the future expected ROEs for her water utility proxy group. If the allowed returns are set based on expected returns, then it is possible that these expected returns will not be consistent with the long-term required returns on common equity; i.e. the cost of equity. This can result in providing support for current market valuation levels rather than setting the ROE equivalent or close to the cost of equity. If a company is earning more that its cost of capital, then the company is recovering more than its cost of service. The intent of ROR/rate base regulation is

to allow the utility to recover its cost of service. While reviewing what other non-regulated companies may be expected to earn over the next five years may be informative in testing the reasonableness of a witness's DCF results, it should not be relied upon for a cost of common equity recommendation because of the above explanation.

Q. Have any other commissions rejected the Non-utility Company Analysis for basically the same reason that you cited above?

A. Yes. In a case involving AmerenUE (now Ameren Illinois), docket Nos. 02-0798, 03-0008 and 03-0009, the Illinois Commerce Commission stated the following:

> Staff objects to Ameren's comparable earnings analysis because Staff believes the comparable earnings methodology is based on the erroneous assumption that earned returns on book equity are acceptable substitutes for investor-required returns. Staff claims there is no basis for this implication, since investor-required returns are only loosely related to accounting returns; they are not interchangeable. Staff asserts that the return on book value of common equity is unaffected by changes in the investor-required rate of return. Staff claims that in some circumstances investors could bid up the price of a stock, thereby reducing the implied required rate of return, but the anticipated return on book equity would not change.
>
> As Staff notes, the Commission has consistently and repeatedly rejected the comparable earnings methodology. In the commission's view, Ameren has provided no new argument in favor of this flawed methodology. Stated simply, the Commission does not believe it is appropriate to estimate CIPS' and UE's forward looking cost of common equity by looking to historical earned returns on common equity earned by competitive industrial firms of similar risk. The constantly changing economic environment alone, which is well documented in the record, prevents the Commission from relying on historical earned returns to establish a forward looking return on common equity.
>
> As stated above, the objective of the proceeding is to establish a net original cost rate base and provide common equity investors the opportunity to earn the market required rate of return on the proportion of net original cost rate base financed by common equity investors. The comparable earnings test proposed by Ameren is inconsistent with this object[ive] and is rejected.

Q. What would Ms. Ahern's ROE be by eliminating her Non-utility Company analysis?

A. By eliminating Ms. Ahern's Non-utility Company Analysis, her ROE would be 10.09 percent, which is the average of 9.54 percent, 10.40 percent and 10.33 percent for her water utility proxy group's DCF, RPM and CAPM analysis respectively.

Q. What would Ms. Ahern's ROE be by including her financial risk adjustment and eliminating her flotation and business risk adjustments?

A. By including Ms. Ahern's financial risk adjustment (0.07 basis points) and eliminating her flotation risk adjustment (0.12 basis points) and business risk adjustment (0.40 basis points) her ROE would be 9.50 percent (9.50% = 10.09% + (0.07%) - 0.12% - 0.40%), five basis points higher than Staff's mid-point of 9.45 percent.

SUMMARY AND CONCLUSIONS

Q. Would you please summarize the conclusion of your Rebuttal Testimony?

A. Yes. My conclusions regarding the capital structure and cost of common equity are listed below:

1. The use of MAWC's capital structure as proposed by MAWC is inappropriate. It does not reflect the mix of capital that American Water considers optimal for purposes of investing in its regulated water utility subsidiaries. The estimated cost of capital for MAWC should be based on American Water's actual consolidated capital structure as of December 31, 2010;

2. Ms. Ahern's use of projected yields is inconsistent with the premise that current asset prices reflect all known information about interest rate risk;

3. Staff's cost of common equity estimate of 8.95 percent to 9.95 percent would produce a fair and reasonable ROR of 7.37 percent to 7.80 on the Missouri jurisdictional water utility rate base for MAWC.

Q. Does this conclude your rebuttal testimony?

A. Yes it does.

Attachment A

Is Deemed

Highly Confidential

In Its Entirety

Missouri American Water Company
Case No. WR-2011-0337

Embedded Cost of Long-Term Debt as of December 31, 2010
for American Water
(Excluding Debt Held at American Water's Subsidiaries Besides MAWC)

Total Annual Cost:	$ 291,350,118	
Total Carrying Value:	$4,727,894,522	
Embedded Cost = Total Annual Cost/Total Carrying Value		**6.16%**

Entity	Total Annual Cost	Carrying Value
AWCC	$ 210,350,023	$ 3,412,098,000
AWK	$ 69,479,234	$ 1,110,317,122
MO	$ 11,520,861	$ 205,479,400
Total	$ 291,350,118	$ 4,727,894,522

Source: Missouri-American Water Company's response to Staff's Data Request No. 0141.

CORRECTED SCHEDULE 8

Missouri-American Water Company
Case No. WR-2011-0337

Constant-Growth Discounted Cash Flow (DCF) Estimated Costs of Common Equity for the Comparable Water Utility Companies

	(1)	(2)	(3)	(4)	(5)
Company Name	Expected Annual Dividend	Average High/Low Stock Price	Projected Dividend Yield	Average of Historical & Projected Growth	Estimated Cost of Common Equity
American States Water Company	$1.18	$33.830	3.49%	5.70%	9.19%
Aqua America Inc.	$0.69	$21.355	3.22%	7.98%	11.19%
California Water Service Group	$0.65	$18.153	3.60%	4.79%	8.39%
Connecticut Water Service Inc.	$0.93 [1]	$26.087	3.57%	4.00%	7.57%
Middlesex Water Company	$0.73	$18.058	4.04%	3.42%	7.46%
SJW Corporation	$0.75	$22.865	3.28%	6.83%	10.11%
York Water Company	$0.52 [2]	$17.073	3.05%	6.08%	9.13%
Average			**3.46%**	**5.54%**	**9.01%**

Proposed Dividend Yield: **3.46%**

Proposed Range of Growth: **5.04% - 6.04%**

Indicated Cost of Common Equity: **8.50% - 9.50%**

Notes:

Column 1 = Average of 2011 through 2016 Estimated Dividends Declared per from Value Line.
Column 3 = (Column 1 / Column 2).
Column 5 = (Column 3 + Column 4).

Sources:

Column 1 = The Value Line Investment Survey: Ratings and Reports, July 22, 2011.
Column 2 = Schedule 16.
Column 4 = Schedule 15.

[1] Connecticut Water Service was calculated by taking the 2011 first quarter dividend times four.
[2] York Water Company was calculated by taking the 2011 first quarter dividend times four.

CORRECTED SCHEDULE 17

Missouri-American Water Company
Case No. WR-2011-0337

Weighted Cost of Capital as of December 31, 2010
for Missouri-American Water Company

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of: 8.95%	9.45%	9.95%
Common Stock Equity	42.95%	---	3.84%	4.06%	4.27%
Preferred Stock	0.29%	9.21%	0.03%	0.03%	0.03%
Long-Term Debt	56.76%	6.16%	3.50%	3.50%	3.50%
Short-Term Debt	0.00%		0.00%	0.00%	0.00%
Total	**100.00%**		**7.37%**	**7.58%**	**7.80%**

Sources:
See Schedule 7 for the Capital Structure Ratios.

CORRECTED SCHEDULE 21