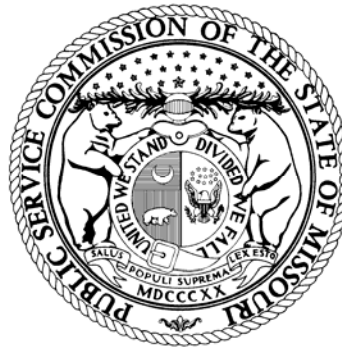


MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE



MISSOURI-AMERICAN WATER COMPANY

CASE NOS. WR-2008-0311 and SR-2008-0312

*Jefferson City, Missouri
August 18, 2008*

COST OF SERVICE REPORT

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COST OF SERVICE REPORT

I. Executive Summary

The Staff has conducted a review, in the consolidated Case Nos. WR-2008-0311 and SR-2008-0312, of all cost of service components (capital structure and return on rate base, rate base, depreciation expense and operating expenses) which comprise Missouri-American Water Company's (Missouri-American, MAWC or Company) Missouri jurisdictional revenue requirement. This audit was in response to Missouri-American's application to increase its gross annual water revenues in the amount of \$49,622,515 and its gross annual sewer revenues in the amount of \$133,012, filed on March 31, 2008.

The Staff's recommended increase in revenue requirement is based upon a test year of the twelve months ending December 31, 2007, with a test year update period ending March 31, 2008. Major elements of the revenue requirement calculation for Missouri-American were measured through March 31, 2008, in the Staff's case. The Staff's recommended revenue requirement for MAWC at the midpoint of its return on equity range (ROE) of 10.10% is approximately \$28,331,674; this includes an estimated true-up allowance amount of \$14,372,009.

The impact of the Staff's recommended revenue requirement for each retail rate customer class will be proposed in the Staff's rate design testimony that is to be filed on September 3, 2008.

II. Background of Missouri-American

Missouri-American Water Company is a Missouri corporation providing water service in and around the cities of Brunswick, Jefferson City, Joplin, Mexico, Parkville, St. Charles, St. Louis, St. Joseph, Warrensburg and in Warren County, Missouri. MAWC also provides sewer service in and around the cities of Cedar Hill, Parkville and in Warren County, Missouri. MAWC provides water service to approximately 455,967 customers and sewer service to approximately 1,088 customers.

Missouri-American is a wholly owned subsidiary of American Water Works Company, Inc., (American Water) which is the largest investor-owned U.S. water and wastewater utility

company. American Water is headquartered in Voorhees, New Jersey and provides water and sewer service in 32 states and Ontario, Canada.

Missouri-American last sought to change its water and sewer rates in Case No. WR-2007-0216, et al. In its Order dated October 4, 2007 in that proceeding, the Commission granted MAWC a total increase in rates of \$28,463,584.

On January 29, 2008, Missouri-American filed an application to adjust its infrastructure system replacement surcharge (ISRS) water rates. The Commission issued an order on April 17, 2008 approving the new (ISRS) rates in the amount of \$2,670,761. As a result of this current rate case, the ISRS will be reset to zero. The net change in rates for MAWC recommended in the Staff's direct filing in this proceeding is the difference between the Staff's revenue requirement recommendation at the midpoint return on equity and the ISRS amount already reflected in rates (\$2,670,761).

III. Test Year/Update Period

The purpose of a test year update period is to establish a cut-off point to which major elements of a utility's revenue requirement are to be updated, beyond the test year, for inclusion in the Staff's and other parties' direct cases. In contrast, a true-up is a re-audit and update of major elements of a utility's revenue requirement beyond the end of the ordered test year and test year update period. When ordered, true-ups involve the filing of additional sets of testimony and the scheduling of additional evidentiary hearings ordered by the Commission. While test year update periods are ordered by the Commission in almost all general rate proceedings, true-ups are used on a selective basis only.

Missouri-American filed its case based upon a December 31, 2007 test year; and it made adjustments to its case to reflect the impact of several material events it expected to occur by September 30, 2008. Missouri-American requested in its "Recommendation Concerning Test Year and Request for True-Up Audit and Hearing" a true-up audit for consideration of financial data through September 30, 2008. MAWC anticipates that approximately \$125 million of plant will be placed into service between January 1, 2008 and September 30, 2008. As of March 31, 2008, Missouri-American has placed approximately \$13.7 million of plant into service above its January 1, 2008 level.

The Staff, in its filing, “Staff’s Test Year and True-Up Recommendations,” agreed with MAWC’s proposed test year of the twelve months ended December 31, 2007, and in addition proposed a test year update period in this case for known and measurable changes through March 31, 2007.

Due to the timing of the evidentiary hearings and the true-up hearings originally ordered by the Commission in its “Suspension Order and Notice, Order Setting Hearings, Order Directing Filing and Order Consolidating Cases” issued on April 3, 2008, the Staff stated it would not be able to perform a September 30, 2008 true-up audit, and would provide a statement of its position as to Company’s true-up request simultaneously with its revenue requirement direct testimony filing. On June 30, 2008 the Commission issued the “Order Adopting Procedural Schedule” which rescheduled the evidentiary hearing and true-up hearing dates. The new hearing dates ordered by the Commission will allow the Staff time to conduct a true-up audit for consideration of financial data from April 1, 2008 through September 30, 2008. Staff believes a true-up audit is warranted in this proceeding based upon the amount of plant the Company is planning on placing in service between the end of the updated test year (March 31, 2008) and the proposed true-up audit ending date (September 30, 2008).

As part of Staff’s direct filing the Staff has filed 14 sets of accounting schedules that reflect the Staff’s audit results. The Staff filed a set of accounting schedules for each separate operating district of MAWC. The Staff also filed a set of accounting schedules to reflect the combination of the 10 water districts and a set of accounting schedules to reflect the combination of the three sewer districts. Lastly, the Staff filed a Total Company set of accounting schedules which combines all 10 districts’ audit results.

The following is a listing of the schedules that are in each set of the 16 accounting schedules and who is sponsoring each schedules:

Accounting Schedule 1	Revenue Requirement	Paul R. Harrison
Accounting Schedule 2	Rate Base	Keith Foster
Accounting Schedule 3	Total Plant in Service	Keith Foster
Accounting Schedule 4	Adjustments to Total Plant	Keith Foster
Accounting Schedule 5	Depreciation Expense	Keith Foster
Accounting Schedule 6	Depreciation Reserve	Keith Foster

Accounting Schedule 7	Adjustments to Depreciation Reserve	Keith Foster
Accounting Schedule 8	Cash Working Capital	Keith Foster
Accounting Schedule 9	Income Statement	Paul R. Harrison
Accounting Schedule 10	Adjustment to Income Statement	Paul R. Harrison
Accounting Schedule 11	Income Tax	Paul R. Harrison

IV. Major Issues

The following are the major issues that exist between the Staff and the Company as a result of their respective direct filings. These issues are discussed here because of their estimated dollar value. A brief explanation for each issue follows, with an estimate of its dollar value.

Return on Equity (ROE) – Issue Value – (\$4.4 million) The Staff has recommended a 10.10% ROE at the midpoint. MAWC is recommending an 11.25 % ROE. This issue is addressed in detail in the Section V of this Report.

Plant in Service – (\$11.6 million) The Company’s direct filing utilizes an estimated plant in service as of September 30, 2008. The Staff’s direct filing is based upon plant in service as of March 31, 2008. Much of this difference will no longer exist after the true-up audit.

Revenue – (\$4.5 million) The Staff annualized and normalized revenues based upon the number of customers as of April 30, 2008. This issue is addressed in detail in Section VIII of this Report.

Payroll – (\$1.7 million) The Staff’s annualized payroll is based upon employee levels and wages as of March 31, 2008. The Company used a planned employee level through September 30, 2008, which included current vacancies.

Insurance Other than Group – (\$1 million) – Staff applied the payroll Operations and Maintenance (O&M) percentage factor used in its direct filing to Insurance Other than Group expense. In the Company’s direct filing the Company applied a different percentage factor to this expense.

Hydrant Maintenance – (\$1.4 million) – In the Company direct filing, the Company proposes to increase hydrant maintenance by \$1.4 million annually. The Staff has not included this adjustment in its direct filing. The Staff will address this issue in its rebuttal testimony.

There are various other issues between the Staff and the Company based upon their respective direct filings which are of lower dollar magnitude. These issues are discussed as well in this Report.

Staff Expert: Kimberly K. Bolin, Sections I, II, III and IV

V. Rate of Return

A. Summary

The Financial Analysis Staff (Matthew J. Barnes) recommends that the Commission authorize an overall rate of return (ROR) of 7.52 percent to 7.95 percent for MAWC. This rate of return recommendation is based on a recommended return on common equity of 9.60 percent to 10.60 percent applied to American Water Company's March 31, 2008, common equity ratio of 42.85 percent. American Water is the parent company for its subsidiaries and American Water Capital Corporation (AWCC). The recommendation is driven by my comparable company analysis using the discounted cash flow (DCF) model. The Staff continues to believe that the DCF model is the most reliable model available for estimating a utility company's cost of common equity.

The Staff's embedded cost of long-term debt recommendation of 6.00 percent is based on the cost of long-term debt outstanding at AWCC and MAWC as of March 31, 2008. This embedded cost of long-term debt does not include any debt held at American Water's other subsidiaries, which is consistent with the Commission's decision in the Missouri Gas Energy rate case, Case No. GR-2004-0209, which was upheld by the Western District Missouri Court of Appeals. See *MGE v. Public Service Commission of the State of Missouri*, 186 S.W.3d 376 (Mo. App., W.D. 2005). It should be noted that \$103,000,000 of AWCC debt held at MAWC was eliminated to avoid double counting since it is reflected in AWCC's embedded cost of debt. Staff relied on MAWC's response to Staff Data Request No. 0150 to calculate the embedded cost of debt.

Staff's embedded cost of preferred stock recommendation of 9.18 percent is based on the cost of preferred stock outstanding at American Water, AWCC and MAWC as of March 31, 2008. The cost excludes preferred stock held at American Water's subsidiaries.

Staff's cost of short-term debt recommendation of 5.03 percent is based on American Water's average cost of short-term debt for the twelve-months ended March 31, 2008, which according to MAWC's response to Staff Data Request No. 0151 is based on the pooled average costs of short-term debt provided through AWCC.

The Staff used American Water's consolidated capital structure as of March 31, 2008 that includes American Water, AWCC, and all of its subsidiaries. Schedule 8 presents American Water's capital structure and associated capital ratios. The Staff's resulting capital structure consists of 42.85 percent common equity, .32 percent preferred stock, 53.24 percent long-term debt and 3.58 percent short-term debt.

B. Legal Principles of rate of return

The *Bluefield Water Works and Improvement Company* (1923) (*Bluefield*) and the *Hope Natural Gas Company* (1944) (*Hope*) cases have been cited as the two most influential cases for the legal framework to determine a fair and reasonable rate of return. In the *Bluefield* case the Supreme Court ruled that a fair return would be:

A return "generally being made at the same time" in that "general part of the country;"

A return achieved by other companies with "corresponding risks and uncertainties;" and

A return "sufficient to assure confidence in the financial soundness of the utility."

The Court specifically stated:

A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.

In the *Hope* case, the Court stated that:

The rate-making process . . . , *i.e.*, the fixing of “just and reasonable” rates, involves a balancing of the investor and the consumer interests. Thus we stated . . . that “regulation does not insure that the business shall produce net revenues” . . . it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock . . . By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

The *Hope* case restates the concept of comparable returns to include those achieved by other enterprises that have “corresponding risks.” The Supreme Court also noted in this case that regulation does not guarantee profits to a utility company. Please see Attachment A for more details regarding the use of cost of common equity models to determine a recommended cost of common equity.

C. Current Economic Conditions

The Federal Reserve (Fed) has been steadily raising the Fed Funds rate by 25 basis points at every Federal Open Market Committee (FOMC) meeting since June 30, 2004. This began after the Fed had kept the Fed Funds Rate at a 46-year low of 1.00 percent for a full year. The Fed raised the Fed Funds Rate seventeen consecutive times to the level of 5.25 percent. On August 17, 2007, the Fed Funds Rate remained at 5.25 percent. The Fed reduced the Fed Funds Rate to 2.00 percent from September 18, 2007 to April 30, 2008. Please see Schedule 2-1. A review of Schedules 5-1 through 5-3 shows that average utility bond yields fell to an average annual yield of 5.39 percent during June 2005, which was the lowest yield in the past 26 years. Utility bond yields have since increased to an average annual yield of 6.50 percent in June 2008. Cost of capital changes for utilities are closely reflected in the yields on public utility bonds and yields on Thirty-Year U.S. Treasury Bonds (see Schedules 5-1 and 5-2). Schedule 5-3 shows how closely the Mergent’s “Public Utility Bond Yields” have followed the yields of Thirty-Year U.S. Treasury Bonds during the period from 1980 to the present. The average spread for this period between these two composite indices has been 150 basis points, with the spread ranging

from a low of 80 basis points to a high of 304 basis points (see attached Schedule 5-4). Although there may be times when utility bond yield changes may lag the yield changes in the Thirty-Year U.S. Treasury Bond, these spread parameters show just how closely correlated utilities' cost of capital is with the level of interest rates on long-term treasuries. The significance of the current economic conditions to MAWC is that yields on public utility bonds and yields on Thirty-year Treasury bonds are low by historical standards. An example of historical standards is the double digit yields for long-term U.S. Government bonds and corporate bonds from the late 1970's to the mid 1980's. A lower interest rate environment means a lower cost of capital and a higher interest rate environment means a higher cost of capital for a utility. The current yields on U.S. Government bonds and public utility bonds are normal by historical standards (see attached Schedule 5-3). The Commission should take the lower and more normal yields on U.S. Government and corporate bonds into consideration when authorizing a rate of return for MAWC. For a detailed explanation of historical economic conditions, please see Attachment B.

D. Economic Projections

See Attachment C for projections on inflation, interest rates and gross domestic product (GDP).

E. Business Operations of AMERICAN WATER AND MAWC

A brief summary of American Water's operations found on the Yahoo! Finance website (<http://finance.yahoo.com/q/pr?s=AWK>) was as follows:

American Water Works Company, Inc. engages in the provision of water and wastewater services to residential, commercial, and industrial customers in the United States and Canada. It offers its services in approximately 1,625 communities in 20 states of the United States and Ontario, Canada. The company also enters into public/private partnerships, including operation and maintenance contracts; and design, build, and operate contracts for the provision of services to water and wastewater facilities for municipalities, the United States military, and other customers. In addition, it designs, builds, and operates smaller-scale water and wastewater treatment plants for real estate developers, industrial companies, and new or expanding communities; and provides services to domestic homeowners to protect against the cost of repairing broken or leaking pipes inside and outside their homes. The company was founded in

1886 and is based in Voorhees, New Jersey. American Water Works Company, Inc. is a subsidiary of RWE Thames Water PLC.

American Water's total operating revenues were \$506,815,000 for the 12 months ended March 31, 2008, versus \$468,544,000 for the 12 months ended March 31, 2007. These 2008 revenues resulted in an overall net income applicable to common stock of (\$732,484,000) and earnings per share (EPS) of (\$4.58) as compared to the 2007 net income applicable to common stock of \$2,685,000 and an EPS of \$.02. These revenues and net incomes were generated from total assets of \$12,268,004,000 at March 31, 2008, and \$12,934,072,000 at March 31, 2007. These figures were taken from American Water's Form 10Q SEC filing for the quarter ending March 31, 2008.

American Water's current Standard & Poor's Corporation's (S&P's) corporate credit rating is "BBB+" with a Stable outlook. S&P's June 19, 2008 American Water Works Research Update provides the explanation of American Water's assigned credit rating to the company:

On June 19, 2008, Standard & Poor's Ratings Services lowered its corporate credit ratings on American Water Works Co. Inc. (AWW) and its funding subsidiary American Water Capital Corp. (AWCC) to 'BBB+' from 'A-'. At the same time, we removed the ratings from CreditWatch with negative implications. The outlook is stable. The downgrade primarily reflects our concern that the pace and extent of cash flow improvement will be considerably slower than we previously expected. Despite an 8% increase in revenues in the first quarter of 2008, key credit metrics, including adjusted funds from operations (FFO) to total debt of around 9%, FFO interest coverage under 3x, and adjusted debt to total capital of 60%, were unchanged from the prior quarter and are weak for the 'A-' rating. Over the intermediate term, the company will be engaged in a greater number of rate proceedings than we expected, as AWW seeks to phase in rate increases incrementally to avoid rate shock while prudently financing capital spending of up to \$1 billion per year over the next several years. This is likely to result in sizable back-to-back rate filings in a number of states and make achieving financial metrics appropriate for the 'A' category a longer term proposition. Funding from the secondary equity market could be more challenging as RWE AG's attempts to divest its holdings will compete with offerings by AWW, which may slow improvements in leverage...

Schedules 7-1 and 7-2 present the historical capital structures for American Water and MAWC from 1998 through 2007. American Water's consolidated common equity ratio has ranged from a high of 48.62 percent to a low of 29.80 percent from 1998 through 2007.

MAWC's common equity ratio has ranged from a high of 48.40 percent to a low of 40.10 percent from 1998 through 2007.

F. Determination of the Cost of Capital

A utility's cost of capital is usually determined by evaluating the total dollars of capital for the utility company as of a specific point in time. This total dollar amount is then apportioned into each specific capital component; i.e., common equity, long-term debt, preferred stock and short-term debt. A weighted cost for each capital component is determined by multiplying each capital component ratio by the appropriate embedded cost or by the estimated cost of common equity component. The individual weighted costs are summed to arrive at a total weighted cost of capital. This total weighted average cost of capital (WACC) is synonymous with the fair rate of return for the utility company.

Authorizing a company's WACC as its rate of return is considered a just and reasonable rate of return under normal circumstances. From a financial viewpoint, a company employs different forms of capital to support or fund the assets of the company. Each different form of capital has a cost and these costs are weighted proportionately to fund each dollar invested in the assets. Assuming that the various forms of capital are within a reasonable balance and are costed correctly, the resulting total WACC, when applied to rate base, will provide the funds necessary to service the various forms of capital. Thus, the total WACC corresponds to a fair rate of return for the utility company.

G. Capital Structure and Embedded Costs

Schedule 8 presents American Water's consolidated capital structure and associated capital ratios. The resulting capital structure consists of 42.85 percent common stock equity, 53.24 percent long-term debt, .32 percent preferred stock, and 3.58 percent short-term debt. Staff chose to use American Water's consolidated capital structure for several reasons. First, MAWC is not a publicly traded company and does not issue its own common stock.

Second, the debt issued by AWCC is rated based on the consolidated credit quality of American Water. Therefore, the cost of any debt that MAWC receives from AWCC is, and will be, based on the consolidated creditworthiness of American Water, which is based not only on the business risk associated with American Water's consolidated operations, but also on the

financial risk, i.e. the parent company capital structure of American Water, not MAWC's business risk and capital structure.

Third, investors are not concerned about the capital structure of MAWC when purchasing the stock of American Water. It is the consolidated capital structure and operations of American Water that the investor takes into consideration when determining the price they are willing to pay for their stock.

Last, American Water employs double leverage, which is a situation in which American Water carries debt at the parent level and infuses these proceeds as equity in its subsidiaries. The Staff's concern with double leverage is that if the Commission adopts MAWC's assigned capital structure in this proceeding, the Company would earn a return on equity that is higher than the cost of debt that was infused as equity into MAWC. This means that ratepayers would pay more in rates than what is necessary. American Water's consolidated capital structure drives the cost of capital for MAWC, and because it is the capital structure evaluated by investors providing debt to AWCC, it is a market-driven capital structure.

Schedule 9 presents the Staff's embedded cost of long-term debt recommendation of 6.00 percent and is based on the cost of long-term debt outstanding at American Water, AWCC and MAWC as of March 31, 2008. This embedded cost of long-term debt does not include any debt held at American Water's other subsidiaries, which is consistent with the Commission's decision in the Missouri Gas Energy rate case, Case No. GR-2004-0209, which was upheld by the Western District Missouri Court of Appeals. See *MGE v. Public Service Commission of the State of Missouri*, 186 S.W.3d 376 (Mo. App., W.D. 2005). It should be noted that \$103,000,000 of AWCC debt held at MAWC was eliminated to avoid double counting since it is reflected in AWCC's embedded cost of debt. Staff relied on MAWC's response to Staff Data Request No. 0150.

Schedule 10 presents the Staff's embedded cost of preferred stock recommendation of 9.18 percent and is based on the cost of preferred stock outstanding at MAWC as of March 31, 2008. It should be noted that there was no preferred stock outstanding at American Water or AWCC. Staff relied on MAWC's response to Staff Data Request No. 0150.

Staff's cost of short-term debt recommendation of 5.03 percent is based on American Water's average cost of short-term debt for the twelve-months ended March 31, 2008, which according to

MAWC's response to Staff Data Request No. 0151 is based on the pooled average costs of short-term debt provided through AWCC.

H. Cost of Common Equity

In order to calculate the cost of common equity for MAWC, the Staff performed a comparable company analysis of four water utility companies because these companies have similar water operations that are comparable to MAWC. The Staff selected the discounted cash flow (DCF) model (explained in detail in Attachment D) as the primary tool to determine the cost of common equity for MAWC. The Staff also selected the Capital Asset Pricing Model (CAPM) (explained in detail in Attachment E) to check the reasonableness of the DCF results.

The Staff first relied on the Edward Jones Water Utility Industry Summary publication for March 31, 2008. Schedule 11 presents a list of the eleven water utility companies that Edward Jones currently classifies as water utility companies. The Staff then applied the following criteria to these eleven water utility companies in order to select the ultimate proxy group:

1. Stock publicly traded: This criterion did not eliminate any companies;
2. Information printed in Value Line: This criterion eliminated three companies;
3. Ten years of data available: This criterion eliminated one additional company;
4. At least investment grade credit rating: This criterion eliminated two additional companies because of lack of rating information;
5. Projected growth rate available from Value Line or I/B/E/S: This criterion eliminated one additional company;
6. Greater than 80 percent of revenues from water operations: This criterion did not eliminate any companies;

This resulted in a group of four publicly-traded water utility companies. The comparables are listed on Schedule 12.

The Staff calculated a DCF cost of common equity for each of the comparables. The first step was to calculate a growth rate. The Staff reviewed the actual dividends per share (DPS), earnings per share (EPS), and book values per share (BVPS) as well as projected EPS growth rates for the comparables. Schedule 13-1 lists the annual compound growth rates for DPS, EPS,

and BVPS for the past ten years. Schedule 13-2 lists the annual compound growth rates for DPS, EPS, and BVPS for the past five years. Schedule 13-3 presents the averages of the growth rates shown in Schedules 13-1 and 13-2. Schedule 14 presents the average historical growth rates and the projected growth rates for the comparables. The projected EPS growth rates were obtained from three outside sources; I/B/E/S Inc.'s *Institutional Brokers Estimate System* and *The Value Line Investment Survey: Ratings and Reports*. The three projected EPS growth rates were averaged to develop an average projected growth rate of 8.59 percent, which was averaged with the historical growth rates to produce a historical and projected growth rate of 6.45 percent. The Staff chose to rely on the historical and projected growth rates to arrive at a growth rate range for the comparables of 5.95 percent to 6.95 percent.

The next step was to calculate an expected yield for each of the comparables. The yield term of the DCF model is calculated by dividing the amount of the expected DPS payment over the next twelve months by the market price per share of the firm's stock. Even though a strict technical application of the model requires the use of a current spot market price, the Staff chose to use a monthly average market price for each of the comparables. The Staff used this averaging technique to minimize the effects on the dividend yield which can occur due to daily volatility in the stock market. Schedule 15 presents the average high/low stock price for the period of March 1, 2008, through June 30, 2008, for each comparable. Column 1 of Schedule 16 indicates the expected dividend for each comparable over the next 12 months as projected by *The Value Line Investment Survey: Ratings & Reports*, July 25, 2008. Column 3 of Schedule 16 shows the projected dividend yield for each of the comparables. The dividend yield for each comparable was averaged to calculate the projected dividend yield of 3.27 percent.

As illustrated in Column 5, of Schedule 16, the average cost of common equity based on the projected dividend yield added to the average of historical and projected growth is 9.72 percent. The Staff's DCF proxy group cost of common equity estimation is 9.22 percent to 10.22 percent with a mid-point of 9.72 percent.

To verify the reasonableness of the Staff's DCF cost of common equity, the Staff performed a CAPM cost-of-common-equity analysis for the comparables. For purposes of this analysis, the risk-free rate the Staff used was the yield on Thirty-Year U.S. Treasury Bonds. The Staff determined the appropriate rate to be the average yield for the month of June 2008. The average yield of 4.69 percent was provided on the St. Louis Federal Reserve website.

For the second variable, beta, the Staff researched Value Line in order to find the betas for the comparable group of companies. Schedule 17 contains the appropriate betas for the comparables. The final term of the CAPM is the market risk premium ($R_m - R_f$). The market risk premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk-free investment.

The first risk premium used was based on the long-term, arithmetic average from 1926 to 2007, which was 6.50 percent. The second risk premium was based on the long-term, geometric average from 1926 to 2007, which was determined to be 4.90 percent. These risk premiums were taken from Ibbotson Associates, Inc.'s *Stocks, Bonds, Bills, and Inflation: 2008 Yearbook*.

Schedule 17 presents the CAPM analysis of the comparables using historical actual return spreads to estimate the required equity risk premium. The CAPM analysis produces an estimated cost of common equity of 11.27 percent for the comparables when using the long-term arithmetic average risk premium period; using the long-term geometric average produces an estimated cost of common equity of 9.65 percent.

The results of the Staff's DCF and CAPM estimated ROE analyses using the comparable company approach are summarized below.

	<u>DCF</u>	<u>CAPM (Historical)</u>
Comparable Companies	9.22% - 10.22%	Historical – 11.27%; 9.65

As noted above, the Staff's DCF analysis resulted in a ROE range of 9.22 percent to 10.22 percent. Because the average credit rating of the comparable companies is A and the credit rating of American Water is BBB+, the Staff increased the lower end and the upper end of the range by 37 basis points to reflect the higher risk implied by this credit rating differential (See Schedule 18). The recent spread between A-rated utility bonds and BBB-rated utility bonds is 55 basis points. This approximately equates into an 18 basis point differential for each notch within the credit rating and because American Water's credit rating is two notches below the average credit rating of the comparable companies, the Staff believes it is appropriate to increase the proxy group cost of common equity estimate up by 37 basis points. Therefore, the Staff's return on common equity results in the range of 9.59 percent to

10.59 percent, with a mid-point of 10.09 percent. Staff rounded its recommended return on equity to 9.60 percent to 10.60 percent, with a mid-point of 10.10 percent for simplicity.

I. Conclusion

The cost of service ratemaking method was adopted in this case. This approach develops the public utility's revenue requirement. The cost of service (revenue requirement) is based on the following components: operating costs, rate base and a return allowed on the rate base (see Schedule 19).

It is the Staff's responsibility to calculate and recommend a rate of return that should be authorized on the Missouri jurisdictional water utility rate base of MAWC. Under the cost of service ratemaking approach, a weighted cost of capital in the range of 7.52 to 7.95 percent was developed for MAWC's water utility operations (see Schedule 20). This rate was calculated by applying an embedded cost of long-term debt of 6.00 percent, an embedded cost of preferred stock of 9.18 percent and a cost of common equity range of 9.60 percent to 10.60, with a mid-point of 10.10 percent to a capital structure consisting of 53.24 percent long-term debt, .32 percent preferred stock, 42.85 percent common equity and 3.58 percent short-term debt. Therefore; from a financial perspective, Staff is recommending to the Commission that MAWC's water utility operations be allowed to earn a return on its original cost rate base in the range of 7.52 to 7.95 percent.

It is Staff's expert opinion that, through its analysis, it has developed a fair and reasonable return, which when applied to MAWC's jurisdictional rate base, will allow MAWC the opportunity to earn the revenue requirement developed in this rate case.

Staff Expert: Matthew J. Barnes

VI. Rate Base

A. Plant in Service and Depreciation Reserve

1. Plant in Service as of March 31, 2008

Accounting Schedule 3, Plant in Service, reflects the rate base value of Missouri-American's plant in service for each district at March 31, 2008, by account. The plant in service for each district includes allocated Corporate plant as discussed in Section VII.

Corporate plant was allocated across the districts according to the Labor Composite Corporate Allocation Factor (the corporate allocation factors are discussed in Section VII.B. and listed in Appendix 3).

Staff Expert: Keith Foster

2. Cedar Hill Plant Capacity Adjustment

In its sewer plant-in-service accounts, Missouri-American Water Company (MAWC) included an expansion project at its Cedar Hill Sand Creek treatment facility. The Staff proposes a disallowance of a portion of this expansion project. This expansion project increased the treatment capacity of the Cedar Hill Sand Creek Plant from 75,000 gallons per day to 150,000 gallons per day. Although the Staff agrees that a plant should be built with enough capacity for anticipated growth due to a particular new housing development, the Staff believes that it is unreasonable for current customers to pay for the entire capital cost of this plant expansion project. Instead, the Staff recommends that the cost of the additional capacity should be recovered when new customers connect to the system through a Contribution-in-aid-of-Construction (CIAC) charge that was created in Case No. WR-2007-0216, and recovery of rate base on a “per new customer” basis. The CIAC charge is \$1,500 per residential customer. The Staff’s recommended disallowance is designed such that the Company would realize full recovery when the plant reaches 85% capacity.

In this proceeding, Staff proposes to disallow \$2,179,907. This amount is \$12,719 less than the \$2,192,626 that MAWC included in its rate base calculation. Staff determined the disallowance in the following manner. At the time of the expansion, there were 185 customers connected to the system. Based on flow information that the Staff determined through visiting the plant, each customer uses approximately 357 gallons per day. This number was derived by taking a measured flow of 66,000 gallons per day (gpd) and dividing it by 185 customers. Based on the Staff’s belief that a 15% excess in plant capacity is reasonable, the capacity limit used for the Staff’s disallowance would be 127,500 gallons per day. This is 85% of the new capacity limit of 150,000 gpd, and dividing the 127,500 by 357 gallons per day per customer means there would be 357 customers on the system at this capacity level. Considering there were 185 customers on the system at the time of the expansion, this plant could serve an additional 172 customers. Taking the cost of the expansion, \$2,192,626 and dividing that by 172, results in

a cost per additional customer of \$12,719. There has been one new customer in this area, therefore, the Staff believes that the cost per one new customer is a reasonable amount to add to rate base. Thus, subtracting the \$12,719 from the total expansion cost of \$2,192,626 results in the Staff's recommended disallowance of \$2,179,907.

Staff Expert: James Merciel

3. Capitalized Fixed Asset System Costs

The Staff made an adjustment of \$168,390 to capitalize costs related to the Service Company fixed asset system. This adjustment recognizes the capitalized amount of the Service Company fixed asset system that should be included in plant in service. The Staff also made an adjustment to depreciation reserve related to the Service Company fixed asset system of \$3,115. This adjustment recognizes the depreciation reserve amount of the fixed asset system.

Staff Expert: Paul R. Harrison

4. Depreciation Reserve as of March 31, 2008

Accounting Schedule 4, Depreciation Reserve, reflects the rate base value of Missouri-American's depreciation reserve for each district as of March 31, 2008, by account. The depreciation reserve for each district includes allocated Corporate accumulated depreciation. Corporate depreciation reserve plant was allocated across the districts according to the Labor Composite Corporate Allocation Factor (the corporate allocation factors are discussed in Section VII.B. and listed in Appendix 3).

Staff Expert: Keith Foster

B. Cash Working Capital (CWC)

The Staff has used the same revenue and expense lag factors that were used in the last rate case proceeding, Case No. WR-2007-0216. The Staff has reviewed material submitted by the Company that indicates nothing has changed that would impact the revenue and expense lags.

Staff Expert: Keith Foster

C. Prepayments, and Materials and Supplies

The Company has utilized shareholder funds for prepaid items such as insurance premiums. The Staff has included these prepayments in rate base at the 13-month average level ending March 2008. The Company also holds a variety of materials and supplies in inventory so as to be readily available in performing its utility operations. The Staff has included in rate base the 13-month average value ending March 2008 of Missouri-American's materials and supplies inventory.

Staff Expert: Keith Foster

D. Other Post Employment Benefit Costs (OPEB's)

1. Pension/OPEB Tracker

The Staff, MAWC and other parties entered into a Stipulation and Agreement in Case Nos. WR-2007-0216 and SR-2007-0217 titled, "Nonunanimous Stipulation and Agreement," which addressed the ratemaking treatment for annual pension and OPEB costs under Financial Accounting Standards (FAS) 87 (Employer's Accounting for Pension) and 106 (Employer's Accountings for Postretirement Benefits Other than Pensions), respectively. The FAS 87 and 106 tracker mechanisms established in this stipulation and agreement represent the difference between the ongoing allocated FAS 87 and 106 expense, as calculated by the Company's actuary, and the allocated FAS 87 and 106 expense included in the last rate case (Case No. WR-2007-0216).

The Staff has calculated the balance of the tracker, as of March 31, 2008 for FAS 87 costs to be (\$259,869). This amount is a regulatory liability, which means that the Company has over-recovered its pension expense in rates since its last Missouri case. The Staff is recommending that 1/5 of this amount (\$51,974) be amortized and subtracted from the FAS 87 expense calculated by the Company's actuary. The tracker balance of (\$259,869) is reflected as a reduction to Staff's rate base.

The Staff has calculated the balance of the tracker as of March 31, 2008 for FAS 106 costs to be \$641,433. This amount is a regulatory asset, which means that the Company has under-recovered its OPEBs expense in rates since its last Missouri rate case. The Staff is recommending that 1/5 of this amount, or \$128,287, be amortized and added to the FAS 106

cost calculated by the Company's actuary. The tracker balance of \$641,433 is an addition to the Staff's rate base.

Staff Expert: Dana E. Eaves

2. Pension Liability

The Company reports an accrual pension liability as of March 31, 2008 in the amount of \$5,619,363. This liability results from MAWC receiving more cash in rates for pension expense than it had to contribute to its pension trust fund during the 1990s and the first years of this decade. Over time, this regulatory liability should be reduced to zero on account of MAWC's trust fund contributions exceeding its cash recovery for pensions in rates. The Staff has calculated a decrease in this liability since the last rate case of approximately \$2.8 million.

Staff Expert: Dana E. Eaves

3. OPEB Asset

The Company records a Prepaid OPEB asset in rate base. The OPEB asset represents contributions the Company made to an external fund in 1993 and 1994, before the implementation of FAS 106 for ratemaking in Missouri. The inclusion of this item in rate base was ordered by the Commission in Case No. WR-95-205. The Staff is proposing that this OPEB asset be amortized over five years. Therefore, one-fifth of this asset balance has been added to the Staff's adjusted level of OPEB expense. This asset only exists for the Missouri-American districts that were owned by Missouri-American Water before 1995.

Staff Expert: Dana. Eaves

E Customer Advances

Customer advances are funds provided by individual customers of the Company to assist in the costs of the provision of water and/or sewer service to them. These funds represent interest-free money to the Company. Therefore, it is appropriate to include these funds as an offset to rate base. No interest is paid to customers for the use of their money, unlike customer deposits. The amount of customer advances reflected on Accounting Schedule 2, Rate Base, represents the balance as of March 31, 2008, the end of the Staff's update period.

Staff Expert: Keith Foster

F. Contributions in Aid of Construction

Contributions in Aid of Construction (CIAC) are similar to customer advances in that CIAC are funds provided by individual customers of the Company to assist in the costs of the provision of water and/or sewer service to them. The difference between customer advances and CIAC is, that in the case of CIAC, no obligation exists for the utility to repay or refund the money. The amount of CIAC reflected on Accounting Schedule 2, Rate Base, represents the balance as of March 31, 2008, the end of the Staff's update period.

Staff Expert: Keith Foster

G. Tank Painting Tracker

In the previous Missouri-American Water Case No. WR-2007-0216, a tank painting tracker was established in the Nonunanimous Stipulation and Agreement. The tracker was to be maintained through the effective date of the rates established in the next regulatory proceeding, (which is this case) with the continuation of the tracker to be addressed and evaluated in such subsequent proceeding. The tracker established a regulatory asset or liability for tank painting and inspection expense which would increase or decrease every year by the same amount that the actual tank painting and inspection expense is either greater than or less than \$1,000,000. The tracker was in effect for the last two months of the test year in this case. As of March 31, 2008, the tracker has produced a regulatory liability of \$401,737. This amount will change during the true-up audit.

Staff Expert: Kimberly Bolin

H. Deferred Income Taxes

Missouri-American's deferred tax reserve represents, in effect, a prepayment of income taxes by MAWC's customers before payment by MAWC. As an example, because MAWC is allowed to deduct depreciation expense on an accelerated basis for income tax purposes, depreciation expense used for income taxes paid by MAWC is considerably higher than depreciation expense used for ratemaking purposes. This results in what is referred to as a "book-tax timing difference," and creates a deferral of income taxes to the future. The net credit balance in the deferred tax reserve represents a source of cost-free funds to MAWC. Therefore,

Missouri-American's rate base is reduced by the deferred tax reserve balance to avoid having customers pay a return on funds that are provided cost-free to the Company. Generally, deferred income taxes associated with all book-tax timing differences that are created through the ratemaking process should be reflected in rate base. The Staff has taken this approach in calculating the deferred income tax rate base offset amount in this case.

Besides accelerated depreciation, the Staff has also included deferred taxes specifically associated with the rate base inclusion of the pension liability, which was discussed previously in Section D, item 1.

Beginning in 1971, the Internal Revenue Code imposed restrictions that prevented the use of Investment Tax Credit (ITC) as a reduction to Rate Base. Since the restrictions do not apply to Pre-71 ITC, it is being provided the same treatment by the Staff as other deferred income taxes that have been funded by the ratepayer.

Staff Expert: Paul R. Harrison

VII. Allocations and Service Company Costs

A. Corporate Allocations

1. Introduction

American Water Works Company, Inc., (American Water), is headquartered in Voorhees, New Jersey, and its subsidiaries serve approximately 17 million customers in 29 states and three Canadian provinces. American Water performs many functions and activities on a consolidated or centralized basis for many of its regulated and unregulated subsidiaries. These consolidated or centralized functions are carried out for the American Water owned subsidiaries by American Water's wholly-owned subsidiary American Water Service Company (Service Company). Through a process of direct assignment and allocation, Service Company employees' time and all other related costs are ultimately charged to the American Water owned utility subsidiaries receiving service. In addition to the Service Company, in 2000, American Water Capital Corporation (AWCC) was created to provide a single source of long and short term debt capital for American Water and its utility subsidiaries. Service agreements exist between MAWC and both the Service Company and AWCC.

The following subsidiaries or affiliated entities currently receive direct or allocated charges from the Service Company:

Regulated Entities

Arizona-American Water	Missouri-American Water
California-American Water	Mount Holly Water Company
Elizabethtown Water Company Inc.	New Jersey-American Water
Hawaii-American Water	New Mexico-American Water
Illinois-American Water	Ohio-American Water
Indiana-American Water	Pennsylvania-American Water
Iowa-American Water	Tennessee American Water
Kentucky-American Water	Texas-American Water
Long Island Water Corporation	Virginia-American Water
Maryland-American Water	Virginia-American Eastern District
Michigan-American Water	West Virginia-American Water

Unregulated Entities

American Water Enterprises (AWE)	Edison Water Company
American Water Capital Corporation (AWCC)	Elizabethtown Services LLC
American Water Resources, Inc. (AWR)	Liberty Water Company
American Water Works (AWK)	

Services performed by the Service Company are grouped into the following cost centers, each with its own list of services provided:

Corporate: provides executive management, finance, human resources, engineering, water quality and operations support and is located in Voorhees, New Jersey.

Shared Services Center: provides financial, accounting, procurement, cash management and human resource benefits coordination and is located in Cherry Hill, New Jersey.

Call Centers: national call centers which handle customer service calls; located in Alton, Illinois and Pensacola, Florida.

Belleville Lab: national trace substance laboratory located in Belleville, Illinois.

Informational Technology Support: two ITS centers which provide information technology support and customer billing for operating companies, located in Haddon Heights, New Jersey, and Hershey, Pennsylvania.

Regional Offices: handle management, rates and revenues, external affairs, loss control, maintenance, legal, human resources, engineering and construction management, water quality and other operations support services for operating companies in their region, as listed below. There are four regions, Northeast, Southeast, Western and Central. The Northeast Region is located in New Jersey and serves the subsidiaries located in New Jersey and New York. The Southeast Region headquartered in West Virginia serves the subsidiaries located in Kentucky, Maryland, Pennsylvania, Tennessee, Virginia, and West Virginia. The Western Region is located in California. The Western Region provides services for the subsidiaries located in Arizona, California, Hawaii and New Mexico. Finally, the Central Region, which is located in St. Louis, serves Missouri-American Water. It also provides services for subsidiaries in Illinois, Indiana, Iowa, Michigan, Ohio and Texas.

Expenses incurred by the service company are allocated to the subsidiaries of American Water. Pursuant to the Company's Cost Allocation Manual (CAM), Service Company expenses are categorized as follows:

Labor: Base pay (salaries) of managerial, professional and technical employees.

Support: Wages and salaries of office support personnel, including secretaries, clerical personnel, telephone operators and mail clerks.

Labor Related Overhead: Employee benefit costs (payroll taxes, medical coverage, pensions, and disability insurance) and other general expenses.

Office Expense: Office rent, equipment leases, telephone, electric, office supplies, property taxes, office maintenance

Vouchers/Journals: Travel expenses incurred by Service Company personnel; other items submitted for reimbursement by employees, including professional association dues; outside service contracts for such items as actuarial services; and various other expenditures, including data center expenses for software licenses and hardware maintenance.

The Service Company employees charge their time and expenses to each one of the affiliate companies either directly or indirectly. According to Missouri-American's Cost Allocation Manual (CAM), Service Company transactions are assigned with certain information so that proper accounting for the service can take place. This information includes the affiliate

company number, (if a direct charge), or a formula number (if a transaction is allocated), the number of hours the employee worked, and the appropriate account number for non-labor items. This method allows for direct charges to both regulated and non-regulated entities when the employee can clearly identify the hours spent providing service to a specific affiliate.

American Water uses a methodology in which both of its regulated and non-regulated companies are allocated costs. This methodology utilizes a time reporting system, in which each employee has the ability to charge hours on their time sheet to billing formula numbers that allocate those hours (or portions of hours) among the group of companies (including regulated and non-regulated) receiving those services when it is not practicable to determine the actual time spent performing that task for each of the companies.

When a Service Company employee provides services that benefit both regulated and non-regulated entities, the employee will choose one of the Tier-One allocation factors to use. An employee who only performs services for regulated companies will utilize a Regulated Formula based on customer counts. An employee providing services to non-regulated companies will use a Non-Regulated Formula based on a combination of revenues, amount of plant and number of employees.

Tier-One Formulas are based on different criteria, such as revenues, employees, plant investment, and others. Some of the formulas are a composite of these criteria, while others are based on only one criterion such as employee numbers. The employee will choose the formula that matches with the service provided. For example, an employee in payroll will most likely choose a formula based on employee numbers.

Regional cost centers can charge other affiliates for costs incurred. This type of charge would occur if a particular regional office has the expertise in a certain area, such as engineering, that is lacking in another region. An employee from that regional office may perform tasks for other regional offices, and directly charge his or her time to the region receiving the expertise. For example, if a certain type of plant project is under construction by California-American Water Company, but the only engineer that is familiar with the specifics of that type of plant is located in the Southeast region office, he will provide services to California-American Water Company and can charge his time directly.

Staff Expert: Paul R. Harrison

2. Service Company Management Fees

The Service Company maintains several types of offices from which it provides services to AW operating companies. These offices are described in detail above. A portion of the Service Company charges are identified as management fees. The Company identified several adjustments that it made for its management fees during its direct filing of this case. The Staff's analysis of the Service Company management fees and the adjustments that were made are identified below.

a. Elimination of One-time Costs

The Company identified costs that passed through the Service Company that were considered to be one-time costs. Included in this amount were costs related to RWE's (American Water's former parent company) divestiture of AW and costs related to complying with the Sarbanes-Oxley Act (SOX). Staff has eliminated these non-recurring allocated costs from MAWC's expenses.

Staff Expert: Paul R. Harrison

b. Annualization of Service Company Payroll

The Staff included an annualized amount of the Service Company's employee wages, which includes wage increases as of April 1, 2008.

Staff Expert: Paul R. Harrison

c. Shift of Service Company Employees

During the test year, several employees were transferred from the service company to MAWC. The Staff included these employees labor and benefits costs in its MAWC cost of service through its payroll annualizations. Therefore, the Staff removed the test year costs associated with these service employees from its service company payroll.

Staff Expert: Paul R. Harrison

d. Rent Expense

In addition to the above mentioned adjustments, during the test year, the service company's rent for its Craig Road office and Call Center decreased by approximately \$27,125 and \$14,964 respectively. Therefore, the Staff removed these costs from MAWC's test year service company management fees.

Staff Expert: Paul R. Harrison

e. Capitalization of Costs Related to Fixed Asset System

During the last case, WR-2007-0216, the Company and the Staff agreed that a portion of the Service Company payroll associated with its fixed asset system should be capitalized. During this case, the Staff reviewed the Staff's testimony, the Staff's work papers and the Company's work papers from the last case and determined that this was an appropriate adjustment that needed to also be made in this case. During the test year for this case, the Company had removed one month of its fixed asset costs from its books and records. Therefore, the Staff made an adjustment to remove the other eleven months of this cost from test year expense. The Staff has also made an adjustment as discussed above to capitalize \$168,390 to the Company's plant in service accounts.

Staff Expert: Paul R. Harrison

f. Call Service Center (CSC), Shared Service Center (SSC) and Information Technology (IT) Costs

This adjustment includes payroll and payroll related costs associated with new hires during the test year and update period for the CSC, SSC and the IT Departments. The Staff included the costs associated with the number of actual positions that the Service Company filled as of March 31, 2008. These new employees' payroll and other labor related costs are included in the Staff's cost of service. The Staff will consider the actual number of employees hired as of September 30, 2008 for the CSC, SSC and the IT Department as part of the true-up process.

Staff Expert: Paul R. Harrison

g. Non-Recurring Write-Off and Credit Balance

In the last MAWC rate case, Case No. WR-2007-0216, a Stipulation and Agreement was filed that called for certain transaction costs associated with plant assets of the Service Company to be removed from the corporate plant and amortized to expense over a 50-year period. During the test year, there was a one time write-off of \$241,147 associated with Service Company engineering fees, and an erroneous booked amortization credit of (\$830,252), in Account No. 575.880, Miscellaneous Charges, and Account No. 531, Contract Services – Engineering, respectively. In order to remove these non-recurring costs from the test year, the Staff made a \$581,104 adjustment, (\$241,147 one time write off plus (\$830,252) credit balance), to eliminate these costs from test year.

Staff Expert: Paul R. Harrison

h. External Affairs Director (Lobbying)

Staff removed a portion of the amount of wages, payroll taxes, and employee benefits associated with the Regional External Affairs Director, given that his job description indicates he performs some lobbying related activities, as well as directing employees that perform lobbying activities. Staff believes that the Company's ratepayers should not bear the cost of lobbying activities.

Staff Expert: Kimberly K. Bolin

B. District Allocations

MAWC is composed of ten different water operating districts and three different sewer operating districts. All corporate rate base, revenues and expenses must be allocated between these districts. The Company proposes allocating most of its corporate costs between these districts based upon the number of customers in each district. In the last several rate cases, the Staff has proposed that the allocated corporate costs should be based upon different allocation factors depending upon the causes that required the costs to be incurred. For example, the Staff proposes that payroll and payroll related benefits should be allocated among the districts based upon a labor allocation factor. Another example would be the Belleville Lab costs; the Staff proposes that these costs be allocated based upon the average number of samples per district. Attached as Appendix 3 is a list of all of the corporate allocation factors that were used in Staff's cost of service and the percentages allocated to each district for each factor.

Staff Expert: Paul R. Harrison

VIII. Income Statement

A. Revenues

1. Introduction

Since the largest component of operating revenues results from the rates charged to Missouri-American's metered and unmetered water service and sewer service customers, a comparison of operating revenues with cost of service is fundamentally a test of the adequacy of the currently effective rates. If the overall cost of providing service to customers exceeds

operating revenues, an increase in the current rates Missouri-American charges its metered and unmetered customers for water or sewer service is required.

One of the major tasks in a rate case is to not merely determine whether a deficiency (or excess) between cost of service and operating revenues exists, but to determine the magnitude of any deficiency (or excess) between cost of service and operating revenues. Once determined, the deficiency (or excess) can only be made up (or otherwise addressed) by adjusting rates (i.e., rate revenues) prospectively.

2. The Development of Rate Revenue in this Case

The objective of this section is to determine annualized, normalized test year sales and revenues by rate classes.

The intent of the Staff's adjustments to test year revenues is to determine the level of revenue that the Company would have collected on an annual and normal basis, based on information "known and measurable" at the end of the update period.

The two major categories of revenue adjustments are known as "normalizations" and "annualizations." Normalizations deal with test year events that are unusual and unlikely to be repeated in the years when the new rates from this case are in effect. Test year weather is an example. Annualizations are adjustments that re-state test year results as if conditions known at the end of the update period had existed throughout the entire test year.

3. Regulatory Adjustments to Test Year Sales and Rate Revenue

a. Normalization of Usage

Missouri-American Water Company (Company) provided work papers in response to Staff Data Request No. 0001, that include a history of both residential and commercial water sales and customer numbers for the following service areas: Joplin, St. Charles, St. Joseph, St. Louis, Brunswick, Mexico, Parkville, Warrensburg and Jefferson City. Staff of the Public Service Commission Water and Sewer Department (Staff) utilized the data provided in those work papers to establish normalized water usage for those nine service areas.

The Company submitted a document titled *Weather Normalization and Water Utilization Trend Estimates*, where the Company recommended customer water usages for each service area based upon various prediction methods. The Company proposed a residential and commercial

usage per customer for each of the nine above-mentioned service areas. The St. Louis service area includes usage numbers for two separate classes of commercial customers as some are billed on a monthly basis and others on a quarterly basis. This resulted in the Company proposing water usages for a total of 19 individual customer types. Of those 19 individual water usages, the Company used the prediction method of weather normalization for five, a trend line regression for five, and a six-year average for nine.

For reasons discussed below, the Staff recommends using the six-year average for all 19 individual customer types.

The Company utilizes weather normalization to indicate that customer water usages drop during years of greater precipitation for five of the 19 customer types. Staff concludes the data does not consistently support a definitive correlation between precipitation and customer usage for any given service area. Furthermore, use of a trend line regression relies heavily on the most recent years' data, which can inaccurately amplify a predicted usage high or low, correspondingly.

Therefore, Staff elected to use known usage numbers as provided by the Company to compute an average usage for the years of 2000 through 2007 (excluding 2003 and 2006) to determine an accurate, consistent and timely estimate of water usage per customer for each of the service areas. Data for the years of 2003 and 2006 were excluded from the calculations, as the Company has found the data to be unreliable due to billing method changes that occurred in those years. This prediction method of using the data from the remaining six years is the same method the Company utilized to calculate usages for nine of the 19 individual customer types.

Averaging the actual usage from the current decade accounts for varying rainfall amounts and temperatures, in any given combination, for each service area and is therefore a more reliable prediction method to use. Further, trends in water usage due to conservation practices or lawn size/irrigation practices may be unique to any given service area, and would also be accounted for in an average of actual usages.

Staff's recommended usage per customer for residential and commercial classes for each service area is included in this report as Appendix 4.

Staff Expert: Jerry Scheible

b. Revenues Annualization

Test year rate revenues do not fully reflect the rate changes implemented on October 22, 2007, as a result of Case No. WR-2007-0216. Thus, test year revenues are understated by the difference between the amount that was actually billed to customers and the revenue that would have been realized by the Company if the current rates had been in effect throughout the entire test year. Staff's method of computing annualized revenues for each rate class for each of the operating districts was to multiply the current billing units by current rates. In other words, Staff's annualized revenues for the Company's operating districts is the sum of the minimum charge revenues and the volumetric charge revenues at current rates. The difference between these revenues and those billed during the test year partly under the current rates and prior rates provided the amount for the revenue adjustments.

The minimum charge revenues were developed by first, multiplying the number of customers or meters as of April 30, 2008, in most part, in each meter class by the applicable minimum charge as ordered in Case No. WR-2007-0216. The Staff used customer or meter balances as of April 30, 2008, instead of March 31, 2008, the end of the updated period ordered in this rate case, because of the inability of the Company's billing system's retroactively identify the breakdown of customers, by customer class and meter size. The product of the number of customers or meters multiplied by the applicable minimum charge was then multiplied by the number of billing periods in a year (four (4) for quarterly billed customers or meters and twelve (12) for monthly billed customers), to produce the annualized minimum charge revenues for each customer class.

The annualized and normalized volumetric (consumption) charge revenues were developed based on a normalized usage applied at current volumetric rate per gallons. Staff Witness Jerry Scheible, of the Commission's Water & Sewer Department, developed and provided the normalized average gallon usage per customer per day for residential and commercial customers. For Industrial, Other Public Authority (OPA) and Other Water Utilities (Sale For Resale) customers, the Staff utilized the actual usage recorded for the twelve-month ending April 30, 2008, and based on the billing units developed the average gallon usage per customer. The average gallons usage per customer per day was multiplied by the average days per year (365.25) and the number of customers to determine the total annual usage or consumption. The total normalized usage was then multiplied by the applicable tariff rate per

gallon for each usage block, to determine the normalized volumetric revenues. The Staff relied on the Company's test year usage per block in thousand (1,000) gallons to allocate the total volumes into the various blocks for which it applied the applicable volumetric rate per gallon.

In the absence of adequate and available data, the Staff could not perform a detailed customer growth analysis for any of the districts, by customer class and by meter size. The Staff recommends that MAWC keep adequate customer records by customer classes and by meter sizes, to permit the Staff of the Commission to undertake an analysis of the Company's customers for any reasonable length of period for the purposes of efficient and effective rate making.

Staff has eliminated all unbilled revenues booked by the Company to the test year revenues in its revenue annualization computation.

Again, for the purpose of this rate case, the Staff has removed any impact of the Infrastructure System Replacement Surcharge (ISRS) and the St. Joseph Property Tax Surcharge from its revenue determination, since both of these surcharges will no longer exist as of the effective date of the tariffs that will be produced as a result of this rate case.

Staff Expert: Kofi Boateng

4. Compensation to MAWC for Services Provided to American Water Resources, Inc.

AWR is an unregulated subsidiary of American Water Works Company, Inc. (AWW) and an affiliate of MAWC. AWR has employees located at the Service Company's Call Center site in Alton, Illinois. AWR is in the business of offering water line protection, sewer line protection, and in-home plumbing protection plans to AWW customers throughout the country, as well as to those MAWC customers that are residential property owners. AWR offered its water line protection program to MAWC customers that are residential property owners in all districts, except its St. Louis district. AWR has also offered its sewer line protection program primarily to those MAWC residential property owners who have agreed to participate in the water line protection program. In addition, two municipalities, Fenton and Sunset Hills, located in MAWC's St. Louis district, have requested that the sewer line protection program be offered to its residents. These two municipalities, which receive sewer service from the Metropolitan St. Louis Sewer District, provided AWR with a list of the addresses of its residents. AWR more

recently has offered an in-home plumbing protection plan to those MAWC residential property owners who have elected to participate in both the water and sewer line protection programs.

MAWC residential property owners are encouraged to sign up for the water line protection program for \$5 per month or \$60 per year. In return, under the conditions of the plan, AWR promises to cover the cost of the repair of a water leak of a customer-owned service line that is caused by normal wear and tear. The customer is provided protection of up to \$4,000 per water leak occurrence. If a customer experiences an actual water leak on their service line, they must contact MAWC, which sends an employee to investigate the source of the problem. In the event MAWC determines that the leak is on the customer-owned service line, then a customer covered by the plan must contact AWR, which makes arrangements to have an approved independent contractor perform the repair. MAWC employees are not used to complete repairs to the service lines of customers who are covered by this plan. Instead, AWR dispatches a licensed, independent contractor to perform the necessary repairs. AWR does not compensate MAWC for the use of its employees who were dispatched to determine the source of water leaks.

MAWC customers who have signed up for the water line protection program have also been offered the opportunity to sign up for a sewer protection program. If a customer elects to participate in both programs, the customer is charged \$12 per month or \$144 per year for participation in both programs. Customers that participate only in the sewer line protection plan are charged \$9 per month, or \$108 per year for sewer line protection. Customers in the Fenton and Sunset Hills municipalities in the St. Louis district who are only offered the sewer line protection plan must pay \$9 per month to participate. All customers participating in the sewer line protection program are also assessed a \$50 service fee when a contractor is dispatched to the home. In return, the customer is provided protection of up to \$8,000 per sewer line incident that is caused by a pipe collapse, tree-root invasion, blockage, or normal wear and tear.

AWR has also offered an in-home plumbing protection plan to those MAWC customers who have signed up for the water and wastewater line protection plans. Customers who elect to participate in this program are charged \$3.99 per month or \$47.88 per year. According to the brochure mailed to MAWC customers, this program provides coverage for unexpected events such as “a clogged bathtub drain...leaking washing machine valve...blocked toilet and more...” Again customers participating in the in-home plumbing protection program are also assessed a

\$50 service fee when a contractor is dispatched to the home. In return, the customer is provided up to \$1,500 of coverage for any approved repair work.

AWR originally received MAWC's customer list as part of its initial April 2003 mailing. Prior to every water line program mailing, AWR received an updated list of MAWC customers.

Since April 3, 2003, AWR has mailed letters to MAWC customers urging them to sign up for its water line protection program on 17 different occasions. Six of these 17 mailings included a letter of endorsement from MAWC's then president, Mr. Eric Thornburg. In fact, 429,066 MAWC letters of endorsement were delivered to MAWC customers, as part of AWR's marketing campaign during a period covering April 3, 2003, through March 18, 2004. The following tables summarize the dates and quantities of mailings that AWR has made to MAWC customers with regard to its water line protection program:

Water Line Mailings Endorsed by MAWC:

<u>Date</u>	<u>Quantity</u>
April 3, 2003	83,321
June 13, 2003	80,316
August 11, 2003	76,585
October 15, 2003	75,443
December 4, 2003	74,214
March 18, 2004	<u>39,187</u>
Total	429,066

Water Line Mailings Endorsed by AWR:

<u>Date</u>	<u>Quantity</u>
June 25, 2004	49,413
October 12, 2004	93,911
February 14, 2005	62,319
June 13, 2005	73,936
November 7, 2005	44,879
February 2, 2006	28,394
April 25, 2006	3,438
July 5, 2006	1,470
October 15, 2006	7,520
January 22, 2007	1,911
April 9, 2007	<u>3,332</u>
Total	370,523

<u>Date</u>	<u>Quantity</u>
MAWC Endorsed Mailings	429,066
AWR Endorsed Mailings	<u>370,523</u>
Total Water Line Mailings	799,589

MAWC discontinued its practice of providing letters of endorsement as part of AWR's marketing efforts after March 18, 2004, not long after the Staff had expressed concerns with this and other marketing practices, absent any form of compensation, in its testimony in MAWC's rate case, Case No. WR-2003-0500. Nevertheless, all of the water line protection program mailings occurred only because AWR has been provided with MAWC's very unique and specific, captive customer list. MAWC has stopped providing its customer lists to AWR in June of 2007 after inquiries from the Staff about this practice.

MAWC has never received any compensation from AWR for any of these items. The Staff believes that this is unreasonable. Absent significant compensation, the Staff doubts that MAWC would turn over its customer mailing list, lend its Company name, logo and President's time to provide a full endorsement of the water line protection program, as part of thousands of letters of encouragement, if some external, or outside third party offered the plan.

The following chart details the sewer line mailings that AWR has sent to MAWC customers:

Sewer Line Mailings

<u>Date</u>	<u>Quantity</u>
June 8, 2004	11,042
August 6, 2004	10,051
October 12, 2004	7,801
January 21, 2005	7,748
March 21, 2005	7,518
May 23, 2005	7,050
August 8, 2005	7,059
October 19, 2005	12,732
February 17, 2006	9,046
May 10, 2006	9,094
July 5, 2006	4,445
September 15, 2006	5,254
November 29, 2006	7,546
January 29, 2007	8,740
March 30, 2007	<u>7,026</u>
Total Sewer Line Mailings	122,152

These mailings include those sent at the request of the Fenton and Sunset Hills municipalities located in MAWC's St. Louis district between October 19, 2005 and March 30, 2007.

The chart below details the AWR in-home plumbing program mailings to MAWC customers:

In-Home Plumbing Program Mailings

<u>Date</u>	<u>Quantity</u>
August 12, 2006	4,704
November 29, 2006	1,981
April 20, 2007	<u>2,877</u>
Total In-Home Plumbing Mailings	9,562

As of March 31, 2008, MAWC reported that 5,017 customers had signed up for the water line protection program, and 2,836 customers had signed up for the sewer line protection program. The Company's response to Staff Data Request 132 indicated that, at March 31, 2008, 857 MAWC customers had signed up for the in-home plumbing protection program. Based on the information provided by the Company, the Staff calculates that AWR collects on an annual basis from MAWC customers, \$329,265 from the water line protection program, \$332,154 from the sewer line protection program and \$94,524 from customers who signed up for in-home plumbing protection program, for a total of \$755,943.

The Staff contends that AWR has profited because of the actions MAWC has taken. The Staff believes it is reasonable for MAWC to provide these services only in the event that it is properly compensated by AWR. Staff's Adjustment includes \$67,826 of compensation to MAWC in its determination of revenue requirement.

The Staff believes that these programs benefited from all the support that MAWC provided to AWR for its initial water line protection offering. This support allowed AWR to gain a foothold with MAWC customers that it was able to leverage to offer other services. However, the Staff recognizes that the effect of this support is somewhat less regarding the later product offerings.

In the absence of the objected-to-AWR expense information relevant to MAWC customers, the Staff assumed a 50% profit margin for the water line protection program being offered to MAWC customers. The Staff believes that because of all the services that

MAWC has provided to AWR, that MAWC is entitled to 25% of this profit margin as calculated on the following page.

WATER LINE PROGRAM

Water Line Revenues	\$329,265
Times: Assumed Profit Margin	50%
Estimated Profits	\$164,653
Times: MAWC's share of profits	25%
Compensation to MAWC – Water Line	\$ 41,158

The Staff also assumed a 50% profit margin for the sewer line protection program and in-home plumbing program. The Staff believes that these mailings were made possible because MAWC has provided AWR with a very unique captive customer list. This list cannot be exactly replicated by any outside mailing list provider. The Staff believes that MAWC is entitled to 12.5% of the profit margins associated with these two programs as calculated on the following page.

SEWER LINE PROGRAM

Sewer Line Revenues	\$332,154
Times: Assumed Profit Margin	50%
Estimated Profits	\$164,526
Times: MAWC's share of profits	12.5%
Compensation to MAWC-Sewer Line	\$ 20,760

IN-HOME PLUMBING PROGRAM

In Home Plumbing Revenues	\$ 94,524
Times: Assumed Profit Margin	50%
Estimated Profits	\$ 47,262
Times: MAWC's share of profits	12.5%
Compensation to MAWC- In-Home Plumbing	\$ 5,908

The Staff's Adjustment increases MAWC's revenues by \$67,826 annually. This amount represents an estimate of the AWR profits that should be imputed to MAWC for providing AWR with the services previously discussed. The Staff calculates that \$41,158 of compensation should be imputed to MAWC from the water line protection program, \$20,760 should be imputed to MAWC from the sewer line protection program and \$5,980 should be imputed to MAWC from the in-home plumbing protection plan.

Staff Expert: Paul R. Harrison

B. Depreciation

Staff reviewed the depreciation rates contained in the Stipulation and Agreement in Case Nos. WR-2007-0216 and SR-2007-0217, and recommends the currently ordered depreciation rates be retained. Plant subaccount numbers are slightly modified from those provided in the previous cases to accommodate additional subaccount recognition. However, plant account numbers continue to conform to the Uniform System of Accounts for water and sewer plants.

Staff Expert: Rosella L. Schad

C. Payroll and Benefits

1. FAS 87 and FAS 88 Pension Costs

The Staff has calculated the ongoing allocated FAS 87 cost in the amount of \$3,176,620. The Staff arrived at this amount by subtracting one-fifth of the FAS 87 net tracker position (amount allowed in rates vs. actual level of expense) from the annual 2008 FAS 87 cost calculated by the Company's actuary in the amount of \$3,228,594. See the above discussion in Rate Base Section D, item 1 for the explanation of the FAS 87 tracker mechanism.

Staff Expert: Dana E. Eaves

2. FAS 106 – Other Post-Employment Benefit s (OPEB's)

The Staff has calculated the ongoing FAS 106 cost in the amount of \$1,256,146. The Staff arrived at this amount by adding one-fifth of the FAS 106 net tracker position to the annual 2008 FAS 106 cost calculated by the Company's actuary in the amount of \$977,276. The Staff also added one-fifth of the balance of the Prepaid OPEB asset to annualized expense. See the above discussion in Rate Base Section D, item 1 and Section D, item 3 for the explanation of FAS 106 tracker mechanism and the Prepaid OPEB asset, respectively.

Staff Expert: Dana E. Eaves

3. Payroll, Payroll Taxes, 401(k) and Other Employee Benefit Costs

The Staff has adjusted Missouri-American's test year payroll expense to reflect an annualized level of payroll, payroll taxes, 401(k) and other employee benefit costs as of March 31, 2008, the endpoint of the test year update period ordered for this case by the

Commission. The Staff is proposing an increase of \$3,099,715 to the test year level of payroll costs.

Base payroll was calculated by multiplying employee levels at March 31, 2008, by the then-current appropriate salary or wage rate to derive the annualized payroll cost. Overtime payroll for MAWC was calculated for each district based upon a five-year average of overtime hours actually incurred multiplied by a current average hourly overtime rate. After allocation between expense and construction, the adjustment for payroll was distributed by National Association of Regulatory Utility Commissioners Uniform System of Accounts (NARUC USOA) based upon the actual distribution experienced by Missouri-American for the twelve months ending December 2007.

The Staff calculated payroll taxes based upon March 31, 2008 wage levels and current tax rates. The 401(k) and VEBA (Voluntary Employee Benefit Association) amounts were also based upon actual employee levels at March 31, 2008. All payroll-related expenses reflect the application of an O&M ratio of 57.46% respectively, as calculated by the Company.

Staff Expert: Dana E. Eaves

4. Incentive Compensation

MAWC proposes to offer three incentive compensation plans for its employees; the Annual Incentive Plan (AIP), the Senior Management Incentive Plan (SMIP), and the Business Development Incentive Plan (BDIP). MAWC employees are only eligible for the AIP, while Service Company, AW and Regional Employees may be eligible to participate in one of the three plans depending on their position. The Staff is only aware of payouts being given in the test year for the AIP. All full-time management, professional, and technical employees (exempt from overtime) in American Water are eligible to participate in the 2007 AIP. The total award paid in March 2008 was \$731,645. Incentive compensation from this plan is paid in addition to an employee's annual salary.

There are three basic components to the AIP; financial, operational and individual. The Staff has proposed an adjustment to remove the portion of the award based on the Company achieving financial goals, and percentage-based Customer Satisfaction Survey and Customer Service Quality Survey goals.

The financial goal is based on American Water's operating result (OR), which is American Water's primary measure of trading profitability. Essentially, this is calculated as revenues, less operating expense (e.g. O & M expense, depreciation, marketing and administrative expense). It also incorporates a share of the earnings of affiliates in which the company has an ownership stake, but excludes interest, taxation and certain one-time items. It is the Staff's policy not to allow this portion of incentive compensation to be recovered in rates. The Staff finds no connection between such financial results and any benefits to MAWC's ratepayers. The Staff's approach to incentive compensation is long-standing and reflects previous Commission decisions. In the Report and Order issued in Case Nos. TC-89-14 et al., Southwestern Bell Telephone Company (SWB), the Commission stated:

In the Commission's opinion the results of the parent corporation, unregulated subsidiaries, and non-Missouri portions of SWB, are only remotely related to the quality of service or the performance of SWB in the state of Missouri. Achieving the goals of SBC [the parent company] and unregulated subsidiaries is too remote to be a justifiable cost of service for Missouri ratepayers. Accordingly, the Staff's proposed disallowances in the senior management's long term and short-term incentive plans...should be adopted.

The Staff is also recommending a disallowance for the portion relating to the customer and service quality surveys. Per the Company responses to the Staff's Data Request 47.1, only 119 water customers out of approximately 447,000 customers were contacted via phone. It is the Staff's position that this sampling is too small a sample for such a reward to be granted.

The Staff's adjustment for incentive compensation is contained within the overall payroll adjustment.

Staff Expert: Dana E. Eaves

5. Lobbying Costs

Staff removed the entire amount of wages and the associated payroll tax, employee benefits and incentive compensation associated with the Manager of Government and Regulatory Affairs. In the job description for this position, the primary role is indicated as lobbying activities.

Staff also removed a portion of the amount of wages and associated payroll tax and employee benefits associated with the position of President of MAWC, because his job description indicated that he performs some lobbying duties.

Staff Expert: Kimberly K. Bolin

D. Maintenance Normalization Adjustments

1. Main Break Expense

The Staff is proposing an adjustment in the amount of (\$447,876) which reflects a five-year average of the number of main breaks and a three-year average of costs for the St Louis County District. The St. Louis County District is the only district that tracks main break expenses separately from the general maintenance expenses. A main break occurs when a water pipe (main) breaks and/or separates completely or a leak is detected which requires a portion of the main to be repaired or replaced. After reviewing the frequency and expenses associated with these breaks, the Staff is recommending this averaging annualization method because of the unpredictability of this type of expense.

Staff Expert: Dana E. Eaves.

2. Tank Painting

In the previous Missouri-American Water rate case (No. WR-2007-0216), a tank painting tracker was established in the Nonunanimous Stipulation and Agreement. The tracker was to be maintained through the effective date of the rates established in the next regulatory proceeding (which is this case), with the continuation of the tracker to be addressed and evaluated in that subsequent proceeding. The tracker established a regulatory asset or liability in which the Staff has included in rate base.

In the past, the Staff has used a yearly average to arrive at a level of tank painting expense to be included in the test year. However, with the new tank painting tracker only being in effect for two months of the test year, the Staff would recommend continuing the tracker at the \$1,000,000 annual level. Also, the Staff has reviewed tank painting contracts that are in effect during calendar year 2008 and the Company has four tank painting contracts that are in place for 2008 which, combined, total slightly over \$1,000,000.

Staff Expert: Kimberly K. Bolin

E. Other Non-Labor Expenses

1. Rate Case Expenses

The Staff has included the actual costs incurred by Missouri-American as of June 30, 2008, for this rate case (Case No. WR-2008-0311). The Staff will include rate case expenses on a going forward basis as the actual expenses are incurred by the Company. The Staff's rate case adjustment is based upon a three-year normalization.

The Staff is not recommending the inclusion of prior rate case expenses in the current cost of service for this case. The Staff's policy is to recommend recovery in rates of normalized rate case expenses only on a prospective basis. The Staff believes it is inappropriate to allow specific recovery in rates of amounts related to past rate proceedings. The Staff will work with the Company through the duration of this case to establish a reasonable and ongoing normalized level of rate case expense for inclusion in rates. This means that any additional expenses associated with the processing of this rate filing by Missouri-American will be examined to determine their appropriateness for inclusion in this case. This will allow costs such as consulting fees, employee travel expenditures and legal representation, which are directly associated with the length of the case through the settlement conference and hearing process, to be properly included in this rate case.

The Staff does not agree that rate case expense is an item that should be "amortized" in a rate case, as that implies an obligation to allow recovery of any unamortized costs in the utility's next rate proceeding.

Staff Expert: Dana E. Eaves

2. Dues and Donations

The Staff reviewed the list of membership dues paid, and donations made, to various organizations that Missouri-American charged to its utility accounts during the test year. The Staff proposes adjustments to exclude various dues and donations that were included by MAWC in its above-the-line expense accounts. Such dues and donations were excluded because they were not necessary for the provision of safe and adequate service, and thus do not have any direct benefit to ratepayers. Allowing the Company to recover these expenses through rates causes the ratepayer to involuntarily contribute to these organizations. Examples of dues

excluded from recovery in the rate case are dues paid to the Missouri Chamber of Commerce, Missouri Energy Development Association (MEDA), and Rotary Clubs.

In *Re: Missouri Public Service, a Division of UtiliCorp United, Inc.*, Case Nos. ER-97-394, et al., Report and Order, 7 Mo.P.S.C.3d 178, 212 (1998), the Commission stated:

The Commission has traditionally disallowed donations such as these. The Commission finds nothing in the record to indicate any discernible ratepayer benefit results from the payment of these donations. The Commission agrees with the Staff in that membership in the various organizations involved in this issue is not necessary for the provision of safe and adequate service to the MPS ratepayers.

Staff Expert: Keith Foster

3. Insurance Expense

Insurance expense is the cost of protection obtained from third parties by utilities against the risk of financial loss associated with unanticipated events or occurrences. Utilities, like non-regulated entities, routinely incur insurance expense in order to minimize their liability (and, potentially, that of its customers) associated with unanticipated losses. The Staff proposed an adjustment to annualize Missouri-American's insurance expense to reflect the premiums paid as of March 31, 2008, the end of the update period.

Staff Expert: Dana E. Eaves

4. Property Tax Expense

For property assessment purposes, utility companies are required to file with their respective taxing authorities valuations of their utility property at the beginning of each assessment year, which is January 1st. Several months later, based on the information provided by the utility, the taxing authority will in turn send the company what is known as "assessed values" for every category of the company's property. The taxing authority will issue to the utility company a property tax rate later in the year. The final step in the process is when the taxing authority issues a property tax bill to the company late in each calendar year with a "due date" of December 31. The billed amount of property taxes is based on the property tax rate applied to the previously determined assessed values of the utility's plant in service and materials and supplies inventory balances as of January 1 of the same year.

Staff adjustment annualizes Missouri-American's property tax expense. This adjustment was calculated by developing a property tax rate to be applied to total water and sewer plant in service and materials and supplies inventory at December 31, 2007. To develop the property tax rate, the Staff divided the amount of total property taxes due for calendar year 2007 by the total plant in service and materials and supplies inventory at December 31, 2006. This property tax rate was then applied to total water and sewer plant in service and materials and supplies inventory on December 31, 2007, to arrive at annualized property taxes. The annualized property tax expense was then subtracted from test year property tax expense to derive the adjustment. The Staff believes that the property tax expense arrived at in this manner is the best estimate available of ongoing levels of these taxes, and is consistent with how property taxes have been calculated for rate purposes in the past for Missouri-American and other Missouri utilities.

Staff Expert: Keith Foster

5. Bad Debt Expense

Bad debt expense is the portion of revenues that Missouri-American is unable to collect from customers because of non-payment of customer bills. After a certain period of time has passed, delinquent customer accounts are written off and turned over to collection agencies for collection. The Company's provisions for bad debt are first booked to the Missouri corporate account into Uniform System of Accounts (USOA) account number 904 and then distributed to the districts based on an allocation factor. The Staff recommends that MAWC track actual bad debt write-offs at each operating district, instead of recording the write-offs at the corporate level.

The ongoing or normalized level of uncollectible accounts determined by Staff for each of MAWC's districts reflects the average of the actual amount of net write-offs for five years ending December 31, 2007, with the exception of St. Louis, Warren County Water, and Cedar Hill districts. Staff determined based on its review that a four-average for STL and three-year average for WCW and CDH all for the period ending December 31, 2007 were more reasonable than a five-year average. The average of the actual net write-offs for the last four years for the St. Louis district was more reflective of the ongoing levels than the average of the actual amount of net write-offs for the five-years ending December 31, 2007. In the Warren County and Cedar

Hill districts, Staff used a three-year average to determine the normal ongoing level of bad debt expense since only three years of data was available.

Staff's adjustment, therefore, represents the difference between the normalized level of bad debt expense and the test year level of bad debt expense recorded on the Company's books and records for each of the districts.

Staff Expert: Kofi Boateng

6. Advertising Expense

In forming its recommendation of the allowable level of Missouri-American's advertising expense, the Staff relied on the principles the Commission and upon the 1986 Kansas City Power & Light Company rate case. In *Re: Kansas City Power and Light Company*, Case Nos. EO-85-185, et al., 28 Mo. P.S.C. (N.S.) 228, 269-71 (1986), the Commission adopted an approach that classifies advertisements into five categories and provides separate rate treatment for each category. The five categories of advertisements recognized by the Commission therein are as follows:

1. General: informational advertising that is useful in the provision of adequate service;
2. Safety: advertising which conveys the ways to safely use electricity and to avoid accidents;
3. Promotional: advertising used to encourage or promote the use of electricity;
4. Institutional: advertising used to improve the company's public image;
5. Political: advertising associated with political issues.

The Commission adopted these categories of advertisements because it believed that a utility's revenue requirement should: 1) always include the reasonable and necessary cost of general and safety advertisements; 2) never include the cost of institutional or political advertisements; and 3) include the cost of promotional advertisements only to the extent that the utility can provide cost-justification for the advertisement (Report and Order in KCPL Case Nos. EO-85-185, et al., 28 Mo.P.S.C. (N.S.) 228, 269-271 (April 23, 1986)).

Accordingly, in the current rate case, the Staff has proposed an adjustment to exclude the costs of institutional and promotional advertising from recovery in rates. (The Staff found no evidence that MAWC engaged in any political advertising.) Costs for safety advertising and general advertising directed towards the benefit of existing customers were unadjusted by the Staff.

Staff Expert: Keith Foster

7. Postage Expense

Staff's adjustment represents the annualization of postage expense based on postage rates that became effective May 12, 2008. Staff developed its annualization by using the actual number of large and small meter mailings for the test year ending December 31, 2007, and applying the new postage rates. Staff then allocated the annualized postage expense across the Missouri-American districts based on the Total Number of Bills Corporate Allocation Factor (the corporate allocation factors are discussed in Section VII.B. and listed in Appendix 3). The test year postage expense was then subtracted from allocated postage expense to derive the adjustment.

Staff Expert: Keith Foster

8. Injuries and Damages

The Staff used a three-year average of actual injuries and damages payments to normalize this cost. A three-year average of payments was used as representative of injuries and damages costs because a historical analysis shows a considerable fluctuation in the payments from year to year. Actual injuries and damages payouts were used in the Staff's adjustment and allocated to each district based upon the Staff's proposed allocation factors.

Staff Expert: Dana E. Eaves

9. Franchise Tax Expense

Staff's adjustment annualizes the Franchise Tax Expense by computing the tax based on assets as of the end of the test year, December 31, 2007. The expense was then allocated across the districts using the Labor Composite Corporate Allocation Factor (the corporate allocation

factors are discussed in Section VII.B. and listed in Appendix 3). The test year expense for each district was then subtracted from the allocated expense for each district to derive the adjustment.

Staff Expert: Keith Foster

10. Amortization of Regulatory Assets

This Regulatory Asset was created as part of the Stipulation and Agreement in Case No. WR-2007-0216. The Asset is resulted from expenses associated with the creation of a national call center and shared services center transition costs. The rate treatment of these expenses is explained in the Nonunanimous Stipulation and Agreement in Case No. WR-2007-0216, page 4, item 12: “The Signatories agree that starting with the effective date of the Report and Order approving this Stipulation and Agreement, MAWC shall be authorized to transfer from Utility Plant in Service and Utility Plant Depreciation Reserve to a regulatory asset (in Account 186) the net investment that was made to plan, design and implement the National Call Center and the National Shared Services Center. This asset shall be amortized and recovered in rates over a fifty (50) year period beginning with the effective date of the Final Order in this case. The unamortized balance of the regulatory asset shall not be included in rate base in any future rate proceeding. MAWC will maintain this regulatory asset on its books until such time as the amortization has been completed.”

The Staff is proposing an adjustment amount of \$119,402 to the test year amount of \$39,803. The annualized level of this is \$159,205. Test year level only contained two months of expense. The annualized level of \$159,205 represents only the Missouri allocated portion of the Call Center and National Shared Services Center transition costs 50 year amortization.

Staff Expert: Dana E. Eaves

11. Chemical Expense

The annualized chemical expense for each district was based on a computation that involved a number of factors, such as current cost of chemicals per gallon, an average chemical usage, test year actual water sales and system delivery reported by the Company, as well as the normalized and annualized system delivery determined by the Staff. All of these factors were combined to produce the annualized costs of chemicals that Staff believes the Company requires to utilize in the water treatment process for the provision of water service to customers.

“System delivery” means water sales to customers plus water or line losses or water that are “unaccounted for.” These water losses may result from leaky pipes or substandard metering or inaccurate recordkeeping. It is a general, but unwritten policy of the Commission Staff that utilities take corrective actions to control the amount of water losses in their systems and limits excess line loss to 15 percent, and that rate recovery of the impact of water losses be limited to a 15% loss factor. During the test year, the loss percentage among the Company’s water districts varied from 5.16% to 24.76%. The Staff increased its normalized and annualized water sales, by the lower of either the loss factor exhibited during the test year or 15% to determine the annualized system delivery for the purpose of calculating chemical costs. The Company is currently undertaking some changes to improve and increase the reliability of the water treatment process in its Joplin and St. Louis plant. These improvements are projected to be completed and become operational by the fall and at that time; the Staff will revise its calculations to include all necessary, known and measurable data related to chemical expense.

Staff Expert: Kofi Boateng

12. Waste Disposal

Waste disposal expense is a result of water or wastewater treatment. Certain byproducts are left behind from this activity and must be removed (hauled) or otherwise transported from the treatment facility. The amount, type and frequency of waste and the method of removal also varies by treatment facility. Therefore, the Staff analyzed each district individually and determined the appropriate level of expense. The Staff utilized a two-year average to normalize the waste disposal expense for the St. Louis and St. Joseph districts. A two-year average was used because information obtained from the Company in Case no. WR-2007-0217 indicated that these districts utilize a two-year cycle for waste disposal. Due to generally upward-trending costs, a test year level was used for the Mexico district. Warren County Sewer district only reported costs for the test year, and the amount in the test year appeared to be reasonable; therefore, the Staff chose to make no adjustment to this level of expense. A three-year average was used for Joplin’s normalized level, because only three years of historical data was provided by the Company. A three-year average was utilized for Brunswick and for Parkville Sewer, because of the volatility of costs during these periods. In Case No. WR-2007-0216, the Staff received information from the Company that indicated the substantial removal of Cedar Hill

waste experienced in the test year, would not need to be done again for 15 to 20 years. The Staff proposed to normalize these expenses over a 17.5 year period (average of 15 and 20 years) for that period. In this case, the Staff is proposing to use a two-year average including the test year amount as well as this normalized level.

Staff Expert: Dana E. Eaves

13. Electricity

Staff's adjustment annualizes fuel and power costs for each district based on the current cost of electricity and the normalized system delivery. The test year electric cost was increased to reflect electric rate increases that occurred during, and subsequent to, the test year as follows:

Supplier	Districts Impacted*	Rate Case	Effective Date	Percent Increase**
AmerenUE	JFC, MEX, SCH, STL, CDH	ER-2007-0002	6/4/2007	2.07%
Aquila	SJO, STL, WAR	ER-2007-0004	5/31/2007	11.89%
Aquila (Fuel Adjustment)	SJO, STL, WAR	EO-2008-0216	3/1/2008	2.93%
KCP&L	BRU, PKW, CORP	ER-2007-0291	1/1/2008	6.50%

* BRU = Brunswick, CDH = Cedar Hill, JFC = Jefferson City, MEX = Mexico, PKW = Parkville Water, SCH = St. Charles, STL = St. Louis County, WAR = Warrensburg, CORP = Missouri Corporate

** Percentage increases were provided by the MoPSC's Energy – Economic Analysis Department.

The average power cost per 1,000 gallons of water production was developed for each district based on the adjusted cost and test year system delivery. Each district specific average cost per gallon was multiplied by the annualized system delivery to calculate the annualized fuel and power cost for each district. The annualized system delivery reflects an estimated water loss of 15% for those districts that had an actual water loss greater than 15%. The test year fuel and power costs were then subtracted from the annualized expense to derive the adjustment.

Staff Expert: Keith Foster

14. Purchased Water

Staff's adjustment annualizes purchased water in the St. Louis County and Parkville water operating districts, which purchase water from the City of St. Louis and from Kansas City, respectively. The purchased water adjustment reflects the annualization of the purchased water cost in the two operating districts based on the annualized system delivery for St. Louis County

and Parkville districts. The annualized system delivery reflects an estimated water loss of 15% for those districts that had an actual water loss greater than 15%.

Staff Expert: Keith Foster

15. Telephone

Staff's adjustment annualizes telephone expenses by removing any non-telephone related expenses from the test year data.

Staff Expert: Keith Foster

16. Leases

Since the St. Louis headquarters (Craig Road Building) is shared by MAWC personnel and American Water Works, Inc., personnel. It is necessary to allocate common space between MAWC and American Water Works, Inc. (AWW). Based upon this allocation, AWW retains 78.24% of this cost, which is not directly charged to Missouri operations. The remaining 21.76% is MAWC's portion. Since all districts benefit from activities associated with these shared services, the Staff has proposed that the appropriate portion of building lease expense (rent) be allocated to the districts.

Staff Expert: Dana E. Eaves

17. Transportation Expense

Transportation expense is the cost associated with vehicles (trucks and cars) and other power operated equipment (backhoes, tractors and forklifts, etc.). The Staff reviewed the effective dates of these leases to determine which leases would be ongoing and which would expire before the expected True-up date. Once the on-going leases were determined, the Staff annualized the cost of these leases. Since these vehicles are directly assigned to each district, it is not necessary to use allocation factors. However, an O&M factor is applied to determine the overall amount charged to expense.

Staff Expert: Dana E. Eaves

18. PSC Assessment

The Staff used the most current PSC Assessment to determine an annualized level of PSC Assessment expense.

Staff Expert Kimberly Bolin

19. Belleville Lab Expense

All Belleville Lab Service Company costs are allocated to MAWC based on a ratio of the number of MAWC customers to the total number of customers of all operating companies taking service from Belleville Labs. For the test year, MAWC received only an indirect cost allocation based on a customer allocation, ratio that was approximately 14.08%.

The Staff Adjustment reduces MAWC's expense to reallocate the indirect portion of Belleville Lab Service Company costs based on an average of the number of test analyses performed on all samples that were submitted to the Belleville Lab over the last five calendar years ending December 31, 2007, in order to smooth out the fluctuation of test analyses for purposes of setting rates. MAWC's portion of test analyses, when compared to all other operating companies, during this five year time period, represented a ratio of approximately 6.85%. The Staff believes that test analysis is a more appropriate allocation method for cost distribution than using customer numbers and recommends that Belleville Lab costs be distributed using test analyses as the basis.

The function of the Belleville Labs facility is exclusively for water sample testing to comply with required regulations. Therefore, test analysis represents a better basis of allocation than the number of customers, because it represents the work that is actually being performed at Belleville Labs. Furthermore, the amount of testing required for a company is dependant upon the type of facilities operated and the environment of the service area, more so than the number of customers that are served. For example, even though MAWC has more customers than New Jersey-American (MAWC 464,365 customers versus New Jersey-American 398,606 customers), on average, Belleville Labs processes almost five times as many test analyses for New Jersey-American than for MAWC (MAWC 2,359 test analysis versus New Jersey-American 11,253 test analysis, during 2007). Staff's proposed allocation method will more accurately match cost-causers to costs.

Staff Expert: Paul R. Harrison

F. Current and Deferred Income Tax

1. Current Income Tax

Current income tax has been calculated generally consistent with the methodology used in the most recent Missouri-American rate case, Case No. WR-2007-0216. A “tax timing difference” occurs when the timing used in reflecting a cost (or revenue) for financial reporting purposes is different from the timing required by the Internal Revenue Service (IRS) in determining taxable income. Current income tax reflects timing differences consistent with the timing required by the IRS. The tax timing differences used in calculating taxable income for computing current income tax are as follows:

- Add Back to Operating Income Before Taxes:
- Book Depreciation Expense
- Miscellaneous Non-deductible Expenses
- Subtractions from Operating Income:
- Interest Expense – Weighted Cost of Debt X Rate Base
- Tax Straight-Line Depreciation
- Tax Depreciation-Excess

In Missouri-American’s last rate case, (No. WR-2007-0216), and in this case, the Company’s and Staff’s book depreciation and tax straight-line depreciation are the same. The Staff adjusted deferred income tax expense to reflect the normalization of the timing differences related to excess depreciation. The Staff also recognized the deferred income taxes related to the amortization of prior year deferrals associated with depreciation and investment tax credit.

Staff Expert: Paul R. Harrison

2. Deferred Income Tax Expense:

When a tax timing difference is reflected for ratemaking purposes consistent with the timing used in determining taxable income for current income tax due the Internal Revenue Code (IRC), the timing difference is given “flow-through” treatment. When a current year timing difference is deferred and recognized for ratemaking purposes consistent with the timing used in calculating pre-tax operating income in the financial statements, then that timing difference is

given “normalization” treatment for ratemaking purposes. Deferred income tax expense for a regulated utility reflects the tax impact of “normalizing” tax timing differences for ratemaking purposes. IRS rules for regulated utilities require normalization treatment for the timing difference related to accelerated tax depreciation. The Staff also recognized the deferred income taxes related to the amortization of prior year deferred associated with the depreciation and investment tax credit (ITC).

Staff Expert: Paul R. Harrison

Appendices

Appendix 1: Staff Credentials

Appendix 2: Support for Staff Cost of Capital Recommendation

Appendix 3: Allocation Factors Used

Appendix 4: Usage Per Customer for Residential and Commercial Classes

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-2008-0311

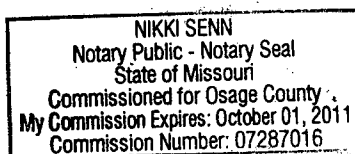
AFFIDAVIT OF MATTHEW J. BARNES

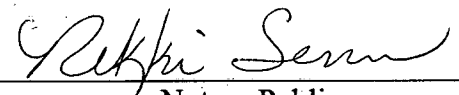
STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

Matthew J. Barnes, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 5-15; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.


Matthew J. Barnes

Subscribed and sworn to before me this 15th day of August, 2008.




Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION

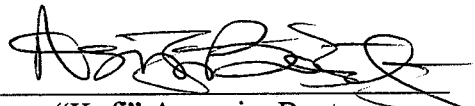
OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water)
Company's request for authority to implement) Case No. WR-2008-0311
a general rate increase for water and sewer)
service provided in Missouri Service Areas)

AFFIDAVIT OF 'KOFI' AGYENIM BOATENG, CPA, CIA

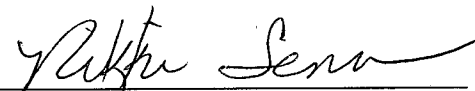
STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

"Kofi" Agyenim Boateng, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 30-31, 43-44, and 46-47; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.


"Kofi" Agyenim Boateng

Subscribed and sworn to before me this 18th day of August, 2008.




Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water)
Company's request for authority to implement) Case No. WR-2008-0311
a general rate increase for water and sewer)
service provided in Missouri Service Areas)

AFFIDAVIT OF KIM BOLIN

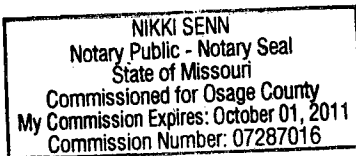
STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

Kim Bolin, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Staff Report in pages 1-5, 20, 27, 39-40, and 50 ; that she has knowledge of the matters set forth in such Report; and that such matters are true to the best of her knowledge and belief.



Kim Bolin

Subscribed and sworn to before me this 18th day of August, 2008.





Notary Public

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-2008-0311

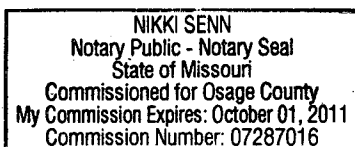
AFFIDAVIT OF DANA E. EAVES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Dana E. Eaves, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 18-19, 37-42, 46-48, and 49; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.


Dana E. Eaves

Subscribed and sworn to before me this 18th day of August, 2008.




Notary Public

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-2008-0311

AFFIDAVIT OF KEITH D. FOSTER

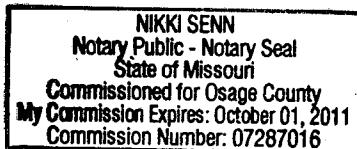
STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Keith D. Foster, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 15-20, 41-46, and 49; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.



Keith D. Foster

Subscribed and sworn to before me this 13th day of August, 2008.



Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

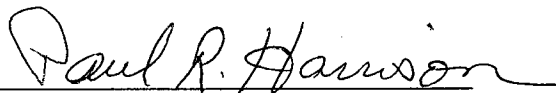
In the Matter of Missouri-American Water)
Company's request for authority to implement)
a general rate increase for water and sewer)
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Case No. WR-2008-0311

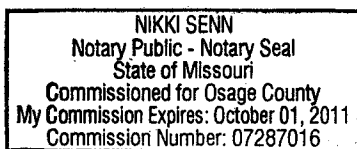
AFFIDAVIT OF PAUL R. HARRISON

STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

Paul R. Harrison, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 17, 20-27, 31-36, and 50-53; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.


Paul R. Harrison

Subscribed and sworn to before me this 18th day of August, 2008.




Notary Public

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-2008-0311

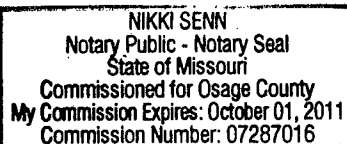
AFFIDAVIT OF JAMES A. MERCIEL, JR., P.E.

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

James A. Merciel, Jr., of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 16-17; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.


James A. Merciel, Jr.

Subscribed and sworn to before me this 15th day of August, 2008.




Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water)
Company's request for authority to implement) Case No. WR-2008-0311
a general rate increase for water and sewer)
service provided in Missouri Service Areas)

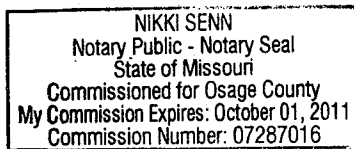
AFFIDAVIT OF ROSELLA L. SCHAD, PE, CPA

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Rosella L. Schad, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Staff Report in page 37; that she has knowledge of the matters set forth in such Report; and that such matters are true to the best of her knowledge and belief.

Rosella L. Schad
Rosella L. Schad

Subscribed and sworn to before me this 18th day of August, 2008.



Nikki Senn
Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

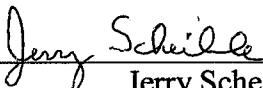
In the Matter of Missouri-American Water)
Company's request for authority to implement)
a general rate increase for water and sewer)
service provided in Missouri Service Areas)

Case No. WR-2008-0311

AFFIDAVIT OF JERRY SCHEIBLE

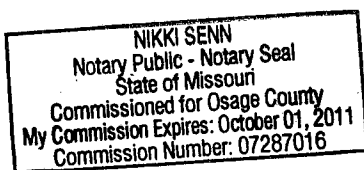
STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Jerry Scheible, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report in pages 28-29; that he has knowledge of the matters set forth in such Report; and that such matters are true to the best of his knowledge and belief.



Jerry Scheible

Subscribed and sworn to before me this 13th day of August, 2008.





Notary Public

APPENDIX 1

STAFF CREDENTIALS

Matthew J. Barnes.....	1
Kofi Agyenim Boateng, CPA, CIA.....	3
Kim Bolin.....	6
Dana E. Eaves.....	12
Keith Foster.....	17
Paul R. Harrison.....	18
James A. Merciel, Jr., P.E.....	27
Rosella L. Schad, PE, CPA.....	31
Jerry Scheible.....	34

MATTHEW J. BARNES

I am currently employed as a Utility Regulatory Auditor III for the Missouri Public Service Commission (Commission). I accepted the position of Utility Regulatory Auditor I in June 2003 and have since been promoted.

Previously, I was employed by the Missouri Department of Natural Resources (MDNR). Prior to MDNR I was employed by the Missouri Department of Conservation as an Auditor Aide.

I have earned a Bachelor of Science degree in Business Administration with an emphasis in Accounting from Columbia College in December 2002. I earned a Masters in Business Administration with an emphasis in Accounting from William Woods University in May 2005.

SUMMARY OF CASE PARTICIPATION

Date Filed	Issue	Case Number	Exhibit	Case Name
10/6/2006	Rate of Return/ Cost of Capital	ER-2006-0314	Surrebuttal	Kansas City Power & Light Company
9/8/2006	Rate of Return	ER-2006-0314	Rebuttal	Kansas City Power & Light Company
9/13/2006	Rate of Return	GR-2006-0387	Direct	Atmos Energy Corporation
10/15/2004	Rate of Return	TC-2002-1076	Supplemental Direct	BPS Telephone Company
11/7/2006	Rate of Return	ER-2006-0314	True-Up	Kansas City Power & Light Company
11/7/2006	Cost of Capital	ER-2006-0314	True-Up	Kansas City Power & Light Company

Date Filed	Issue	Case Number	Exhibit	Case Name
8/8/2006	Rate of Return	ER-2006-0314	Direct	Kansas City Power & Light Company
11/13/2006	Rate of Return	GR-2006-0387	Surrebuttal	Atmos Energy Corporation
3/8/2006	Transaction Structure	TM-2006-0272	Rebuttal	Alltel Missouri, Inc.
1/12/2007	Rate of Return	WR-2006-0425	Surrebuttal	Algonquin Water Resources of Missouri LLC
12/28/2006	Rate of Return	WR-2006-0425	Rebuttal	Algonquin Water Resources of Missouri LLC
12/1/2006	Rate of Return	WR-2006-0425	Direct	Algonquin Water Resources of Missouri LLC
11/15/2005	Transaction Structure	IO-2006-0086	Rebuttal	Sprint Nextel Corporation
11/13/2006	Rate of Return	GR-2006-0387	Rebuttal	Atmos Energy Corporation
05/04/07	Rate of Return	GR-2007-0208	Direct	Laclede Gas Company

KOFI AGYENIM BOATENG, CPA, CIA

EDUCATIONAL BACKGROUND AND EXPERIENCE

I graduated from Ho Polytechnic, Ghana in September 2000, and received a Higher National Diploma (HND) in Accountancy. In May 2004, I received a Master's of Business Administration (MBA) degree with emphasis in Accounting from Lincoln University in Jefferson City, Missouri. In September of 2004, I commenced employment with the Missouri Public Service Commission Staff (Staff) in my current position of Utility Regulatory Auditor. Prior to employment with the Commission, I held the position of Accountant with the Controller & Accountant General's Dept., Ghana; Accountant with ACS-BPS (Ghana) Limited; Payroll Account Technician with Scholastic Book Club, Inc., Jefferson City; and Account Officer II with the Missouri Department of Revenue, Jefferson City. In 2006, I passed the Certified Public Accountant (CPA) examination and, in January 2007, received a license to practice as a professional accountant in the state of Missouri. On August 4, 2008, I completed all of the requirements for the Certified Internal Auditor program and earned the Certified Internal Auditor (CIA) designation. I hold professional membership with the American Institute of Certified Public Accountants (AICPA), Missouri Society of Certified Public Accountants (MSCPA), and The Institute of Internal Auditors-Central Missouri Chapter.

I have actively participated and assisted with audits and examinations of the books and records of utility companies operating under the Commission's jurisdiction within the state of Missouri in both formal and informal rate cases. I have also filed and given testimony before the Missouri Public Service Commission.

CASE PROCEEDING PARTICIPATION

“KOFI” AGYENIM BOATENG, CPA, CIA

PARTICIPATION		
COMPANY	CASE NO.	FILING TYPE/ISSUES
Laclede Gas Company	GR-2007-0208	Testimony: Customer Deposits, Payroll & Payroll Taxes, Incentive Compensation, Dues & Donations, Miscellaneous Expenses, Lobbying, Equity Plan, Directors’ Fees, and Customer Deposit Interest
Roy-L Utilities, Inc.	QS-2008-0001 QW-2008-0002	Staff Memorandum
Bilyeu Water Co. LLC	WA-2007-0270	Certificate Case: No Staff Memorandum
Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P	ER-2007-0004	Testimony: Materials and Supplies, Prepayments, Customer Deposits, Advertising, Dues & Donations, Postage, PSC Assessment, Rate Case Expense, Customer Deposit Interest Expense
Gladlo Water & Sewer Company	QS-2007-0001 QW-2007-0002	Staff Memorandum (Case Still Pending)
Algonquin Water Resources of Missouri, LLC	WR-2006-0425	Testimony: Revenues, Electric Expense, Office Rents, Postage, Telephone Expense, Rate Case Expense
The Empire District Electric Company	ER-2006-0315	Testimony: Plant and Depreciation, Reserve, Cash Working Capital, Property Taxes, Advertising, Dues and Donations, Outside Services, Banking Fees, Promotional Giveaways, Transmission Billing Adjustment, Maintenance
New Florence Telephone Company	TC-2006-184	Stipulation and Agreement
Suburban Water and Sewer Company	WR-2005-0455	Staff Memorandum
Noel Water Company, Inc.	WR-2005-0452	Staff Memorandum
Aquila, Inc., d/b/a Aquila Networks-L&P	HR-2005-0450	Testimony: Materials and Supplies, Prepayments, Customer Deposits, Customer Deposits Interests, Customer Advances, PSC Assessments, Rate Case Expense

CASE PROCEEDING PARTICIPATION

“KOFI” AGYENIM BOATENG, CPA, CIA

PARTICIPATION		
COMPANY	CASE NO.	FILING TYPE/ISSUES
Aquila, Inc., d/b/a Aquila Networks-MPS and Aquila Networks-L&P	ER-2005-0436	Testimony: Materials and Supplies, Prepayments, PSC Assessments, Rate Case Expense
Public Service Commission of the State of Missouri v. Cass County Telephone Company Limited Partnership	TC-2005-0357	Stipulation and Agreement
Southtown Utilities, Inc.	WA-2005-0268	Staff Memorandum
Aqua Missouri Company, Inc. (Water and Sewer)	QS-2005-0008 QW-2005-0009 QS-2005-0010 QW-2005-0011	Staff Memorandum
Missouri Gas Utility	GR-2008-0060	Testimony: Materials & Supplies, Gas Inventory, Prepayments, Customer Deposits, Payroll, Advertising, Property Taxes, Rate Case Expense.

Kimberly K. Bolin
Utility Regulatory Auditor IV

EDUCATION

Bachelors of Business Administration
Central Missouri State University, Warrensburg, MO – May 1993

PROFESSIONAL EXPERIENCE

Missouri Public Service Commission
Utility Regulatory Auditor V
January 2008-Present
Utility Regulatory Auditor IV
November 2006 – January 2008
Utility Regulatory Auditor III
March 2006 – November 2006
Accountant I
April 2005 – February 2006

Missouri Office of the Public Counsel
Public Utility Accountant
September 1994 – April 2005

Missouri Department of Revenue, Taxation
Tax Processing Technician
July 1993 – August 1994

I graduated from Central Missouri State University in Warrensburg, Missouri, with a Bachelor of Science in Business Administration, major emphasis in Accounting, in May 1993. Before coming to work at the Missouri Public Service Commission, I was employed by the Missouri Office of the Public Counsel as a Public Utility Accountant from September 1994 to April 2005. I commenced employment with the Missouri Public Service Commission in April 2005.

I am responsible for performing audits and examinations of the books and records of public utilities operating within the state of Missouri. Please refer to Schedule KKB 1, for a list of the cases in which I have filed testimony before the Missouri Public Service Commission.

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Missouri-American Water Company & Cedar Hill Utility Company, Inc.	SM-2004-0275	<u>Direct</u> - Acquisition Premium	Settled
Missouri Gas Energy	GR-2004-0209	<u>Direct</u> - Safety Line Replacement Program; Environmental Response Fund; Dues & Donations; Payroll; Customer & Governmental Relations Department Disallowance; Outside Lobbyist Costs <u>Rebuttal</u> - Customer Service; Incentive Compensation; Environmental Response Fund; Lobbying/Legislative Costs <u>True-Up</u> - Rate Case Expense	Contested
Osage Water Company	ST-2003-0562 / WT-2003-0563	<u>Direct</u> - Payroll <u>Rebuttal</u> - Payroll; Lease Payments to Affiliated Company; Alleged Legal Requirement of a Reserve	Case Dismissed
Missouri-American Water Company	WR-2003-0500	<u>Direct</u> - Acquisition Adjustment; Water Treatment Plant Excess Capacity; Retired Treatment Plan; Affiliated Transactions; Security AAO; Advertising Expense; Customer Correspondence	Settled
The Empire District Electric Company	ER-2002-424	<u>Direct</u> - Dues & Donations; Memberships; Payroll; Security Costs <u>Rebuttal</u> - Energy Traders' Commission <u>Surrebuttal</u> - Energy Traders' Commission	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Laclede Gas Company	GR-2002-356	<u>Direct</u> - Advertising Expense; Safety Replacement Program and the Copper Service Replacement Program; Dues & Donations; Rate Case Expense <u>Rebuttal</u> - Gas Safety Replacement Program / Deferred Income Taxes for AAOs	Settled
Missouri-American Water Company	WO-2002-273	<u>Rebuttal</u> - Accounting Authority Order <u>Cross-Surrebuttal</u> - Accounting Authority Order	Contested
Environmental Utilities, LLC	WA-2002-65	<u>Direct</u> - Water Supply Agreement <u>Rebuttal</u> - Certificate of Convenience & Necessity	Contested
Warren County Water & Sewer Company	WC-2002-160 / SC-2002-155	<u>Direct</u> - Clean Water Act Violations; DNR Violations; Customer Service; Water Storage Tank; Financial Ability; Management Issues <u>Surrebuttal</u> - Customer Complaints; Poor Management Decisions; Commingling of Regulated & Non-Related Business	Contested
Laclede Gas Company	GR-2001-629	<u>Direct</u> - Advertising Expense; Safety Replacement Program; Dues & Donations; Customer Correspondence	Settled
Gateway Pipeline Company	GM-2001-585	<u>Rebuttal</u> - Acquisition Adjustment; Affiliated Transactions; Company's Strategic Plan	Contested
The Empire District Electric Company	ER-2001-299	<u>Direct</u> - Payroll; Merger Expense <u>Rebuttal</u> - Payroll <u>Surrebuttal</u> - Payroll	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Osage Water Company	SR-2000-556/ WR-2000-557	<u>Direct</u> - Customer Service	Contested
St. Louis County Water Company	WR-2000-844	<u>Direct</u> - Main Incident Expense	Settled
Missouri-American Water Company	WR-2000-281/ SR-2000-282	<u>Direct</u> - Water Plant Premature Retirement; Rate Case Expense <u>Rebuttal</u> - Water Plant Premature Retirement <u>Surrebuttal</u> - Water Plant Premature Retirement	Contested
Laclede Gas Company	GR-99-315	<u>Direct</u> - Advertising Expense; Dues & Donations; Miscellaneous Expense; Items to be Trued-up	Contested
St. Joseph Light & Power Company	HR-99-245	<u>Direct</u> - Advertising Expense; Dues & Donations; Miscellaneous Expense; Items to be Trued-up <u>Rebuttal</u> - Advertising Expense <u>Surrebuttal</u> - Advertising Expense	Settled
St. Joseph Light & Power Company	ER-99-247	<u>Direct</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs <u>Rebuttal</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs <u>Surrebuttal</u> - Merger Expense; Rate Case Expense; Deferral of the Automatic Mapping/Facility Management Costs	Settled

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Laclede Gas Company	GR-98-374	<u>Direct</u> - Advertising Expense; Gas Safety Replacement AAO; Computer System Replacement Costs	Settled
Missouri Gas Energy	GR-98-140	<u>Direct</u> - Payroll; Advertising; Dues & Donations; Regulatory Commission Expense; Rate Case Expense	Contested
Gascony Water Company, Inc.	WA-97-510	<u>Rebuttal</u> - Rate Base; Rate Case Expense; Cash Working Capital	Settled
Union Electric Company	GR-97-393	<u>Direct</u> - Interest Rates for Customer Deposits	Settled
St. Louis County Water Company	WR-97-382	<u>Direct</u> - Interest Rates for Customer Deposits, Main Incident Expense	Settled
Associated Natural Gas Company	GR-97-272	<u>Direct</u> - Acquisition Adjustment; Interest Rates for Customer Deposits <u>Rebuttal</u> - Acquisition Adjustment; Interest Rates for Customer Deposits <u>Surrebuttal</u> - Interest Rates for Customer Deposits	Contested
Missouri-American Water Company	WA-97-45	<u>Rebuttal</u> - Waiver of Service Connection Charges	Contested
Imperial Utility Corporation	SC-96-427	<u>Direct</u> - Revenues, CIAC <u>Surrebuttal</u> - Payroll; Uncollectible Accounts Expense; Rate Case Expense, Revenues	Settled
St. Louis County Water Company	WR-96-263	<u>Direct</u> -Main Incident Repairs <u>Rebuttal</u> - Main Incident Repairs <u>Surrebuttal</u> - Main Incident Repairs	Contested

**CASE PARTICIPATION
OF
KIMBERLY K. BOLIN**

<u>Company Name</u>	<u>Case Number</u>	<u>Testimony/Issues</u>	<u>Contested or Settled</u>
Steelville Telephone Exchange, Inc.	TR-96-123	<u>Direct</u> - Depreciation Reserve Deficiency	Settled
Missouri-American Water Company	WR-95-205/ SR-95-206	<u>Direct</u> - Property Held for Future Use; Premature Retirement of Sewer Plant; Depreciation Study Expense; Deferred Maintenance <u>Rebuttal</u> - Property Held for Future Use; Premature Retirement of Sewer Plant; Deferred Maintenance <u>Surrebuttal</u> - Property Held for Future Use; Premature Retirement of Sewer Plant	Contested
St. Louis County Water Company	WR-95-145	<u>Rebuttal</u> - Tank Painting Reserve Account; Main Repair Reserve Account <u>Surrebuttal</u> - Main Repair Reserve Account	Contested

DANA EAVES
CAREER EXPERIENCE

Missouri Public Service Commission, Jefferson City, Missouri

Utility Regulatory Auditor III April 23, 2003– Present

Utility Regulatory Auditor II April, 2002 – April, 2003

Utility Regulatory Auditor I April, 2001 – April, 2002

Perform rate audits and prepare miscellaneous filings as ordered by the Commission. Review all exhibits and testimony on assigned issues from the most recent previous case and the current case. Develop accounting adjustments and issue positions which are supported by workpapers and written testimony. Prepare Staff Recommendation Memorandum for filings that do not require prepared testimony. Act as Lead Auditor for small to middle size rate cases and certificate cases as assigned by management. I have testified under cross-examination as an expert witness for litigated rate cases.

Midwest Block and Brick, Jefferson City, Missouri

Accountant December 2000 – March 2001

CIS/Accounting Assistant July 2000 – December 2000

Practice Management Plus, Inc., Jefferson City, Missouri

Vice President Operations October 1998 – May 2000

Capital City Medical Associates (CCMA), Jefferson City, Missouri

Director of Finance March, 1995-October, 1998

EDUCATION

Bachelor of Science, Business Administration; Emphasis Accounting (1995)

COLUMBIA COLLEGE, JEFFERSON CITY, MO

CASE PROCEEDING PARTICIPATION**DANA E. EAVES**

PARTICIPATION		TESTIMONY
COMPANY	CASE NO.	ISSUES
The Empire District Electric Company	ER-2008-0093	Staff Report - Fuel and Purchased Power, Fuel Inventories, FAS 87 (pension), FAS 106 (OPEBS), Expenses and Regulatory Assets, Off System Sales, Transmission Revenue, SO2 Allowances, Maintenance Expense
Laclede Gas Company	GR-2007-0208	Accounting Schedules Reconciliation
The Empire District Electric Company	ER-2006-0315	Direct - Jurisdictional Allocations Factors, Revenue, Uncollectible Expense, Pensions, Prepaid Pension Asset, Other Post-Employment Benefits Rebuttal - Updated: Pension Expense, Updated Prepaid Pension Asset, OPEB's Tracker, Minimum Pension Liability
Missouri Gas Energy (Gas)	GR-2004-0209	Direct – Cash Working Capital, Payroll, Payroll Taxes, Incentive Compensation, Bonuses, Materials and Supplies, Customer Deposits and Interest, Customer Advances and Employee Benefits Surrebuttal – Incentive Compensation
Aquila, Inc. d/b/a Aquila Networks-MPS & L&P (Natural Gas)	GR-2004-0072	Direct - Payroll Expense, Employee Benefits, Payroll Taxes Rebuttal – Payroll Expense, Incentive Compensation, Employer Health, Dental and Vision Expense
Aquila, Inc. d/b/a Aquila Networks-MPS (Electric)	ER-2004-0034	Direct - Payroll Expense, Employee Benefits, Payroll Taxes Rebuttal – Payroll Expense, Incentive Compensation, Employer Health, Dental and Vision Expense
Aquila, Inc. d/b/a Aquila Networks-L&P (Electric & Steam)	HR-2004-0024	Direct - Payroll Expense, Employee Benefits, Payroll Taxes

CASE PROCEEDING PARTICIPATION

DANA E. EAVES

PARTICIPATION		TESTIMONY
COMPANY	CASE NO.	ISSUES
The Empire District Electric Company	ER-2002-0424	Direct - Cash Working Capital, Property Tax, Tree Trimming, Injuries and Damages, Outside Services, Misc. Adjustments
Citizens Electric Corporation	ER-2002-0297	Direct - Depreciation Expense, Accumulated Depreciation, Customer Deposits, Material & Supplies, Prepayments, Property Tax, Plant in Service, Customer Advances in Aid of Construction
UtiliCorp United, Inc., d/b/a Missouri Public Service	ER-2001-672	Direct - Advertising, Customer Advances, Customer Deposits, Customer Deposit Interest Expense, Dues and Donations, Material and Supply, Prepayments, PSC Assessment, Rate Case Expense

PROCEEDING PARTICIPATION

DANA E. EAVES

Schedule 2

PARTICIPATION – No testimony filed or NON-Case (Informal) proceeding		
COMPANY	CASE or Tracking No.	ISSUES
Roy L. Utilities, Inc.	QS-2008-0001 and QW-2008-0002	General Informal Rate Case
W.P.C. Sewer Company	QS-2007-0005	Rate Case Lead Auditor
West 16 th Street Sewer Company, Inc.	QS-2007-0004	Rate Case Lead Auditor
Gladlo Water & Sewer Company, Inc.	QS-2007-0001 and QW-2007-0002	Rate Case Lead Auditor Supervised: Kofi Boateng
Taneycomo Highlands, Inc.	QS-2006-0004	Rate Case Lead Auditor
Cass County Telephone Company	TO-2005-0237	Cash Flow Analysis, LEC Invoices, Bank Reconciliations, Expense Analysis
LTA Water Company	WM-2005-0058	Merger Case with Missouri American Main Issue: Plant Valuation Lead Auditor
Noel Water Company, Inc.	QW-2005-0002	Rate Case Lead Auditor Supervised: Kofi Boateng
Suburban Water and Sewer Company, Inc.	QW-2005-0001	Rate Case Lead Auditor Supervised: Kofi Boateng
Osage Water Company	WC-2003-0134	Customer Refund Review

PROCEEDING PARTICIPATION

DANA E. EAVES

Schedule 2

PARTICIPATION – No testimony filed or NON-Case (Informal) proceeding		
COMPANY	CASE or Tracking No.	ISSUES
Noel Water Company, Inc.	QW-2003-0022	Rate Case Lead Auditor Supervised: Trisha Miller
AquaSource	WR-2003-0001 and SR-2003-0002	Plant in Service, Construction Work in Progress, Payroll, Depreciation Expense
Warren County Water and Sewer Company	WC-2002-155	General
Environmental Utilities, LLC	WA-2002-65	General
Meadows Water Company	WR-2001-966 and SR-2001-967	Expense Items

Keith D. Foster

Educational and Employment Background and Credentials

I am currently employed as a Utility Regulatory Auditor I for the Missouri Public Service Commission (Commission). I was employed by the Commission in January 2008. After a 27-year career in the Information Systems (IS) industry, I returned to college and earned a Bachelor of Science degree in Business Administration, major in Accounting from Columbia College. I graduated summa cum laude in October 2007.

Most recently, I was employed by IBM as a Project Manager from March 1991 to December 1998 and as a Project Executive from January 1999 until April 2002. In my capacity as Project Executive, I managed the development and implementation of welfare reform and other system enhancements, ongoing operations and maintenance activities, warranty support, application help desk, and system turnover for the Missouri Automated Child Support System (MACSS), a statewide integrated financial and case management system. I managed all budget, revenue, and profit objectives; developed and maintained detailed spreadsheets to prepare project budgets and revenue projections, to track and manage project costs and revenue daily, and to reconcile with corporate accounting.

I am a member of the Institute of Internal Auditors (IIA) as well as the Project Management Institute (PMI) including the local chapters. In addition, I am a PMI-certified Project Management Professional (PMP), a credential originally earned in January 2000.

As a Utility Regulatory Auditor, I perform rate audits and prepare miscellaneous filings as ordered by the Commission. In addition, I review all exhibits and testimony on assigned issues, develop accounting adjustments and issue positions which are supported by workpapers and written testimony. For cases that do not require prepared testimony, I prepare Staff Recommendation Memorandums.

Another case I have been assigned is: Case No. QW-2008-0010, Tri-States Utilities, Inc.

Background, Education and Credentials

Paul R. Harrison

I am a Utility Regulatory Auditor IV with the Missouri Public Service Commission (PSC or Commission).

I graduated from Park College, Kansas City, Missouri, where I earned a Bachelor of Science degree in both Accounting and Management in July of 1995. I also earned an Associate degree in Missile Maintenance Technology from the Community College of the Air Force in June 1990.

Prior to coming to work at the Commission, I was the manager for Tool Warehouse Inc. for four and one-half years. As the manager, I supervised eight sales representatives and managed merchandise and inventory in excess of \$1.5 million.

Prior to that, I was in the United States Air Force (USAF) for 23 years. During my career in the USAF, I was assigned many different duty positions with varying levels of responsibility. I retired from active duty on May 1, 1994 as Superintendent of the 321st Strategic Missile Wing Missile Mechanical Flight. In that capacity, I supervised 95 missile maintenance technicians and managed assets valued in excess of \$50 million.

My duties at the Commission include performing audits of the books and records of regulated public utilities under the jurisdiction of the PSC, in conjunction with other Commission Staff (Staff) members. Acting in that capacity, I am also required to prepare testimony and serve as a Staff expert witness on cases involving the ratemaking issues that I am assigned.

In conjunction with other members of the Staff, I examine information provided by the Company in response to Staff data requests, portions of the Company's general ledger, other Company financial and statistical reports, as well as workpapers supplied by utilities to support their case filing.

I have performed duties as a Utility Regulatory Auditor within the Auditing Department at the Commission since January 18, 2000. In addition to acquiring general knowledge of these topics through my education, I've acquired experience in prior rate cases before the Commission as well as through formal and informal training.

I attended the National Association Regulatory Utilities Commissioner's (NARUC) Water Rate School in San Diego, California in May of 2000. I also attended NARUC's "On The Missouri" 2003 seminar conducted in Jefferson City, Missouri in January 2003.

I have successfully completed each of my assigned issues, as listed in the Schedule 1, attached to this report and have had the opportunity to interact with other auditors concerning these and other issues that have involved the Auditing Department of the Commission.

I have attended in-house training classes, reviewed Auditing Department position papers, training manuals and technical manuals pertaining to the ratemaking issues in this and other cases.

I have reviewed the Commission's Report and Orders, testimony and transcripts of cases filed by this and other utilities within the jurisdiction of this Commission.

CASE PROCEEDING/PARTICIPATION

PAUL R. HARRISON

COMPANY	CASE NO.	TESTIMONY/ISSUES
SUMMARY OF FORMAL CASES ASSIGNED		
Missouri-American Water Company	WR-2008-0311	In Progress Cost of Service Report- Corporate Allocations; Service Company Management Fees; Belleville Lab Costs; AWR Protection Plan Revenues; Current Income Taxes and Deferred Income Taxes
Missouri Gas Utility, Inc.	GR-2008-0060	January 2008 Cost of Service Report- Revenue Requirement Run (EMS) Merger & Acquisition Costs (Start-Up Costs); Corporate Allocations; Income Taxes & Deferred Taxes
Missouri Gas Energy	GU-2007-0480	June 2008 Rebuttal-Testimony Manufactured Gas Plant Litigated- Manufactured Gas Plant
Missouri Gas Energy	GU-2007-0480	September 2007 Memorandum – AAO Manufactured Gas Plant
Laclede Gas Company		In Progress Investigation of Affiliated Transactions, Corporate Allocations & Appropriate Time Charges Between Laclede Regulated & Unregulated Subsidiaries
Laclede Gas Company	GR-2007-0208	May 2007 Direct- Affiliated Operations; HVAC and Home Sale Inspections; Injuries and Damages; Insurance; 401(k) Expenses; Pensions and OPEBS; Non-Qualified Pension Plan Expenses; and Income Taxes True Up – Pensions& OPEBS; Non -Qualified Pension Plan Expense; Income Taxes

COMPANY	CASE NO.	TESTIMONY/ISSUES
Missouri Gas Energy	GR-2006-0422	<p>November 2006</p> <p>Rebuttal- Environmental Response Fund, Manufactured Gas Plant</p> <p>Litigated- Manufactured Gas Plant</p>
Missouri Gas Energy	GR-2006-0422	<p>October 2006</p> <p>Direct- Revenues; Purchased Gas Adjustments; Bad Debt Expense; ECWR AAO Bad Debt: Rent; Pensions & OPEBS; Income Taxes; Franchise Taxes; Manufactured Gas Plant, and Case Reconciliation</p> <p>Litigated- Emergency Cold Weather Rule</p> <p>True-Up - Revenues; Bad Debt Expense; Pensions & OPEBS; Income Taxes</p>
The Empire District Electric Company	ER-2006-0315	<p>July 2006</p> <p>Rebuttal- Storm Damage Tracker</p>
The Empire District Electric Company	ER-2006-0315	<p>June 2006</p> <p>Direct- Tree Trimming Expense and Construction Over-Run Costs</p>
Missouri Pipeline & Missouri Gas Company LLC	GC-2006-0378	<p>November 2006</p> <p>Plant in Service, Depreciation Reserve, Depreciation Expense, Transactions & Acquisition Costs and Income Taxes</p>
New Florence Telephone Company	TC-2006-0184	<p>October 2006</p> <p>Plant in Service; Depreciation Reserve; Depreciation Expense; Plant Overage; and Materials & Supplies</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
Cass County Telephone Company	TC-2005-0357	July 2006 Plant in Service; Depreciation Reserve; Depreciation Expense; Plant Overage; Plant Held for Future Use and Missouri Universal Service Fund
Cass County Telephone Company & New Florence Telephone Company Fraud Investigation Case	TO-2005-0237	May 2006 Fraud Investigation case involving Cass County Telephone and New Florence Telephone
Missouri Gas Energy	GR-2004-0209	June 2004 Surrebuttal - Revenues and Bad Debt Expense True-Up - Revenues; Bad Debt Expense; Income Taxes
Missouri Gas Energy	GR-2004-0209	May 2004 Rebuttal - Revenues; Bad Debt Expense; and Manufactured Gas Plant Litigated- Manufactured Gas Plant
Missouri Gas Energy	GR-2004-0209	April 2004 Direct – Revenues; Purchased Gas Adjustments; Bad Debt Expense; Medical Expense; Rents; and Income Taxes
Union Electric Company, d/b/a AmerenUE (Gas)	GR-2003-0517	October 2003 Direct – Corporate Allocations; UEC Missouri Gas Allocations; CILCORP Allocations; Rent Expense; Maintenance of General Plant Expense; Lease Agreements; and Employee Relocation Expense
Union Electric Company, d/b/a AmerenUE	EC-2002-1	June 2002 Surrebuttal - Coal Inventory; Venice Power Plant Fire; Tree Trimming Expense; and Automated Meter Reading Service

COMPANY	CASE NO.	TESTIMONY/ISSUES
Laclede Gas Company	GR-2002-356	<p align="center">June 2002</p> <p>Direct - Payroll; Payroll Taxes; 401k Pension Plan; Health Care Expenses; Pension Plan Trustee Fees; and Clearing Account:</p> <p>True- Up – Payroll; Payroll Taxes; and Clearing Accounts</p>
Union Electric Company, d/b/a AmerenUE (2 nd period, 3 rd EARP)	EC-2002-1025	<p align="center">April 2002</p> <p>Direct - Revenue Requirement Run; Plant in Service; Depreciation Reserve; Other Rate Base items; Venice Power Plant Fire expenditures; Tree Trimming Expense; and Coal Inventory</p>
<p>2nd Complaint Case, Union Electric Company d/b/a AmerenUE</p> <p>New Test Year ordered by the Commission.</p>	EC-2002-1	<p align="center">March 2002</p> <p>Direct - Materials and Supplies; Prepayments; Fuel Inventory; Customer Advances for Construction; Customer Deposits; Plant in Service; Depreciation Reserve; Venice Power Plant Fire Expenditures; Tree-Trimming Expense; Automated Meter Reading Expense; Customer Deposit Interest Expense; Year 2000 Computer Modification Expense; Regulatory Advisor's Consulting Fees; and Property Taxes</p> <p>Deposition – April 11, 2002</p>
1 st Complaint Case, Union Electric Company, d/b/a AmerenUE	EC-2002-1	<p align="center">July 2001</p> <p>Direct - Materials and Supplies; Prepayments; Fuel Inventory; Customer Advances for Construction; Customer Deposits; Plant in Service; Depreciation Reserve; Power Plant Maintenance Expense; Tree-Trimming Expense; Automated Meter Reading Expense; Customer Deposit Interest Expense; Year 2000 Computer Modification Expense; Computer Software Expense; Regulatory Advisor's Consulting Fees; Board of Directors Advisor's Fees and Property Taxes.</p> <p>Deposition – November 27 2001</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
Union Electric Company, d/b/a AmerenUE (2 nd period, 2 nd EARP)	EC-2001-431	February 2001 Coal Inventory
Union Electric Company, d/b/a AmerenUE (Gas)	GR-2000-512	August 2000 Direct - Cash Working Capital; Advertising Expense; Missouri PSC Assessment; Dues and Donations; Automated Meter Reading Expenses; Computer System Software Expenses (CSS); Computer System Software Expenses (Y2K); Computer System Software Expenses (EMPRV); Generation Strategy Project Expenses; Regulatory Advisor's Consulting fees; Board of Directors Advisor's fees
Tri-States Utility, Inc.	QW-2008-0010	In Progress Payroll; Payroll Taxes; Employee Benefits; Rate Case Expense; Rate Base Items; Income Statement Items; & Income Taxes Lead Auditor
Big Island Water & Sewer Company, Inc.	WA-2006-0480 SA-2006-0482	January 2007 Direct - Certificate of Necessitate Application Case; Cost of Service; All Revenues & Expenses related to Big Island Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items Lead Auditor
Aqua Missouri, Inc. (Water and Sewer)	QS-2005-0008 QW-2005-009 QS-2005-0010 QW-2005-0011	October 2006 All Revenues & Expenses related to Aqua MO Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items Lead Auditor

COMPANY	CASE NO.	TESTIMONY/ISSUES
Lake Region Water and Sewer Co. Certificate Case	WA-2005-0463	<p>October 2006</p> <p>Certificate of Necessitate Application Case</p> <p>Lead Auditor</p>
Tri-State Utility Inc.	WA-2006-0241	<p>May 2006</p> <p>Certificate of Necessitate Application Case</p> <p>Lead Auditor</p>
Osage Water Company, Environmental Utilities, LLC, and Missouri-American Water Company	WO-2005-0086	<p>February 2005</p> <p>Rate Base; Cost of Service; Income Statement Items; Pre-Post Sale of OWC, Sale of EU Assets to MAWC</p>
North Suburban Public Utility, Inc.(Water & Sewer)	WF-2005-0164	<p>December 2004</p> <p>Sale of All Stocks of Lake Region Water & Sewer to North Suburban Water & Sewer, Value of Rate Base Assets, Acquisition Premium</p> <p>Lead Auditor</p>
Mill Creek Sewers, Inc.	SR-2005-0116	<p>December 2004</p> <p>Cost of Service; All Revenues & Expenses related to Roark Water & Sewer; Plant in Service; Depreciation Reserve & other Rate Base Items.</p> <p>Lead Auditor</p>
Roark Water and Sewer Company	<p>WR-2005-0153</p> <p>SR-2005-0154</p>	<p>September 2004</p> <p>Plant In Service: Rate Base: Revenues: and Expenses.</p> <p>Lead Auditor</p>

COMPANY	CASE NO.	TESTIMONY/ISSUES
Osage Water Company	WT-2003-0583 SR-2003-0584	December 2003 Cost of Service; All Expenses related to Osage Water; Plant in Service; Depreciation Reserve & other Rate Base Items
SUMMARY OF NON-CASE RELATED AUDITS ASSIGNED		
January 2006 – Environmental Utilities and Osage Water Company Audit Concerning Provision of Service to Eagle Woods Subdivision and Disconnect Notice		
November 2004 - Internal Audit of Public Service Commission (PSC) Fixed Assets, Physical Inventory Control Process and Location of Assets		

Qualifications of
James A. Merciel, Jr., P.E.

My name is James A. Merciel, Jr. I am employed by the Missouri Public Service Commission as a Utility Regulatory Engineering Supervisor, in the Water and Sewer Department. My duties include reviewing and making recommendations with regard to certification of new water and sewer utilities, sales of utility systems to other utilities, formal complaint cases, and technical issues associated with water and sewer utility rate cases. In addition to formal case work, I handle customer complaints that are of a technical nature, conduct inspections and evaluations of water and sewer utility systems, and informally assist water and sewer utility companies with respect to day-to-day operations, planning, and customer service issues. In the past, I have supervised engineers and technicians in the water and sewer department working on the above-described type of case work and informal matters. I served on the American Water Works Association Small Systems Committee for three years, and for approximately the past twelve years have served on the National Association of Regulatory Utility Commissioners Staff Subcommittee on Water.

I graduated from the University of Missouri at Rolla in 1976 with a Bachelor of Science degree in Civil Engineering. I am a Registered Professional Engineer in the State of Missouri. I worked for a construction company in 1976 as an engineer and surveyor, began employment with the Commission in the Water and Sewer Department in 1977, and have held my current position since approximately 1979.

Cases with Testimony by James A. Merciel, Jr.

(not all inclusive)

A partial list of cases in which I have provided written or live testimony follows.

Commission Case Number	Utility Company Name
SO-2008-0289	Stoddard County Sewer Co
WC-2007-0452	Suburban Water and Sewer Co
WO-2007-0277	Big Island – Folsom Ridge
WR-2007-0216	Missouri American Water Company
SC-2007-0044	Aqua Missouri, Inc.
Injunction hearing, Circuit Court in Boone County 07BA-CV02632, June 2007	Suburban Water and Sewer Co
WR-2006-0425	Algonquin Water Resources
WC-2006-0345	Missouri American Water Company
WR-2003-0500	Missouri American Water Company
WR-2000-281	Missouri American Water Company
WR-99-326	United Water Missouri
Proceeding by MO Attorney General in Circuit court in St. Louis County, Cause No. 611261, 1998	Mill Creek Sewer System, Inc.
WA-97-510	Gascony Water Company, Inc.
WR-97-382	St. Louis County Water Company
WR-97-237	Missouri American Water Company
WT-97-227 / WA-97-45 / WC-96-441 consolidated cases	Missouri American Water Company
Circuit court case in Warren County CV597-134CC, September 1997	Warren County Water and Sewer Co.
WR-96-263	St. Louis County Water Company
WM-95-423	Finley Valley Water Company / Public Funding Corporation, City of Ozark
WR-95-205	Missouri American Water Company
WR-95-174	Missouri American Water Company
WR-95-172	Missouri Cities Water Company
WR-95-145	St. Louis County Water Company
WR-94-297	Capital City Water Co.
WR-94-166	St. Louis County Water Company

Cases with Testimony by James A. Merciel, Jr.

(not all inclusive)

Commission Case Number	Utility Company Name
WR-93-212	Missouri American Water Company
WR-93-204	St. Louis County Water Company
WR-92-207 Proceeding in Circuit Court in Audrain County, CV192-40SCC approx 1992	Missouri Cities Water Company
WR-92-85 / WR-92-88	Raytown Water Company
WR-91-361	St. Louis County Water Company
WR-91-211	Missouri American Water Company
WR-91-172	Missouri Cities Water Company
WC-91-18 and/or WC-91-268	Merriam Woods Water Company
WR-90-236	Missouri Cities Water Company
WR-90-118	Capital City Water Co.
WR-89-265	Missouri American Water Company
WO-89-187	Southwest Village Water Company
WR-89-178	Missouri Cities Water Company
WC-89-138 (included testimony in Circuit Court in Greene County)	Southwest Village Water Company
WO-89-76	Capital City Water Co.
WA-89-1	Camelot Utility Co.
WC-88-288 (including Circuit Court in Wayne County)	Davis Water Company
WC-88-280	Missouri Cities Water Company
WR-88-215	Capital City Water Co.
WR-88-5	St. Louis County Water Company
Circuit court lawsuit case in Jefferson County, approx 1988	West Elm Place Corporation
WR-87-177	Missouri American Water Company
WC-87-125	Davis Water Company
WR-87-2	St. Louis County Water Company
WR-86-111	Missouri Cities Water Company
WA-86-58	Villa Park Heights Water Co
WC-86-20	Missouri Cities Water Company
WR-85-243	St. Louis County Water Company

Cases with Testimony by James A. Merciel, Jr.

(not all inclusive)

Commission Case Number	Utility Company Name
WR-85-157	Missouri Cities Water Company
WR-85-16	Missouri American Water Company
WR-84-51	Missouri Cities Water Company
WC-84-29	St. Louis County Water Company
WC-84-19	Suburban Water and Sewer Co.
WR-83-264	St. Louis County Water Company
WR-83-165	Capital City Water Co.
WR-83-15	Missouri Cities Water Company
WR-82-249	St. Louis County Water Company
WC-79-251	St. Louis County Water Company
SC-78-257 Proceeding in Circuit Court in St. Charles County, approx 1980 or 1981	Lake Saint Louis Sewer Co.

ROSELLA SCHAD, PE, CPA



Education

University of Missouri-Columbia
The Gordon E. Crosby, Jr., MBA Program
Emphasis: Finance
Candidate for Master's of Business Administration, May 2008

Columbia College
27-hours Accounting

University of Missouri-Columbia
The Truman School of Public Affairs
Master's of Public Administration, May 2004
Emphasis: Public Management

University of Missouri-Columbia
Bachelor's of Science in Mechanical Engineering, Honors Scholar, May 1978

Professional Experience

- 3/99 to Present *Engineer, Missouri Public Service Commission, Jefferson City, Missouri*
- Perform depreciation reserve studies using statistical analysis techniques, engineering judgment, familiarity of the regulated industries, and knowledge of company specific operations and maintenance resulting in equitable utility rates for the Missouri consumers
 - Prepare recommendations and provide written and oral testimony supporting staff regulated utility depreciation rates
 - Facilitate engineering "quality of service" inspections and audits
 - Review other staff depreciation analyses, including auditing documentation
 - Develop a telecommunications industry seminar to address technical issues for legislators, regulators, businesses, educators, and other state agencies
- 6/78 to 11/80 *Engineer, Union Electric, Callaway Nuclear Plant, Fulton, Missouri*
- Evaluated procurement contracts with construction contractors and equipment and material suppliers resulting in substantial savings for the construction project.
 - Audited construction projects for adherence to applicable standards and codes
 - Surveyed equipment and materials specifications for manufacturing, distribution, and installation requirements and criteria

Certification

Missouri Professional Engineer (P.E.)
Missouri Certified Public Accountant (C.P.A.)

Professional Membership

National/Missouri Society of Professional Engineers
Missouri Society of Certified Public Accountants
Society of Depreciation Professionals

CASE PROCEEDING PARTICIPATION

ROSELLA L. SCHAD, PE, CPA

COMPANY	CASE NO./ FILING	ISSUES
Missouri Gas Utility, Inc.	GR-2008-0060 Direct	Report - Depreciation
Aquila, Inc. d/b/a Aquila Networks-MPS and Aquila Networks-L&P	ER-2007-0004 Direct	Depreciation
Algonquin Water Resources of Missouri, LLC	WR-2006-0425 & SR-2006-0426 (Consolidated) Direct, Rebuttal, Surrebuttal	Depreciation
Kansas City Power & Light Company	ER-2006-0314 Direct and Surrebuttal	Depreciation
Silverleaf Resorts, Inc. and Algonquin Water Resources of Missouri, LLC	WO-2005-0206 Rebuttal	Depreciation
Laclede Gas Company	GR-99-315 Supplemental Rebuttal	Depreciation, Cost of Removal, and Net Salvage
Laclede Gas Company	GR-99-315 Supplemental Direct	Depreciation, Cost of Removal, and Net Salvage
Aquila, Inc. d/b/a Aquila Networks-MPS (Electric) and Aquila Networks-L&P (Electric and Steam)	ER-2004-0034 and HR-2004-0024 (Consolidated) Surrebuttal	Production Plant Retirement Dates; Accumulated Depreciation; Cost of Removal and Depreciation
Aquila, Inc. d/b/a Aquila Networks-MPS and Aquila Networks-L&P	GR-2004-0072 Rebuttal	Depreciation; Accumulated Depreciation; Cost of Removal and Production Plant Retirement Dates
Aquila, Inc. d/b/a Aquila Networks-MPS (Electric) and Aquila Networks-L&P (Electric and Steam)	ER-2004-0034 and HR-2004-0024 (Consolidated) Rebuttal	Production Plant Retirement Dates; Accumulated Depreciation Reserve Balances; Cost of Removal and Depreciation
Aquila, Inc. d/b/a Aquila Networks-MPS and Aquila Networks-L&P	GR-2004-0072 Direct	Depreciation and Accumulated Depreciation Reserve

CASE PROCEEDING PARTICIPATION**ROSELLA L. SCHAD, PE, CPA**

COMPANY	CASE NO./ FILING	ISSUES
Aquila, Inc. d/b/a Aquila Networks-MPS and Aquila Networks-L&P	ER-2004-0034 and HR-2004-0024 (Consolidated) Direct	Depreciation and Accumulated Depreciation Reserve
Laclede Gas Company	GR-2002-356 Rebuttal	Decommissioning
Laclede Gas Company	GR-2002-356 Direct	Depreciation
Union Electric Company d/b/a AmerenUE	EC-2002-1 Surrebuttal	Depreciation; Steam Production Plant Retirement Dates; Decommissioning Costs; Callaway Interim Additions
Laclede Gas Company	GR-2001-629 Direct	Depreciation
Ozark Telephone Company	TC-2001-402 Direct	Depreciation Rates
Northeast Missouri Rural Telephone Company	TR-2001-344 Direct, Surrebuttal	Depreciation Rates
Oregon Farmers Mutual Telephone Company	TT-2001-328 Rebuttal	Depreciation Rates
KLM Telephone Company	TT-2001-120 Rebuttal	Depreciation Rates
Holway Telephone Company	TT-2001-119 Rebuttal	Depreciation Rates
Peace Valley Telephone Company	TT-2001-118 Rebuttal	Depreciation Rates
Iamo Telephone Company	TT-2001-116 Rebuttal	Depreciation Rates
Osage Water Company	WR-2000-557 Direct	Depreciation
Osage Water Company	SR-2000-556 Direct	Depreciation

Jerry Scheible, P.E.

Education

Bachelor of Science Degree in Agricultural Engineering
University of Missouri – Columbia, 1995

Associate of Arts Degree in General Studies
East Central College – Union, MO 1991

Courses toward a Masters Degree in Public Administration
University of Missouri – Columbia

Professional Experience

Utility Regulatory Engineer, Water and Sewer Department - Missouri Public Service Commission (October 2001 – Present)

Environmental Engineer II, Water Pollution Control Program - Missouri Department of Natural Resources - Land Application Unit (May 2001 – October 2001)

Environmental Engineer II, Water Pollution Control Program - Missouri Department of Natural Resources - State Revolving Fund Unit (February 1998 – May 2001)

Environmental Engineer I & II, Water Pollution Control Program - Missouri Department of Natural Resources - Concentrated Animal Feeding Operations (October 1994 - February 1998)

Farm Manager/Custom Cabinet Design and Construction - (May 1987-August 1995)

Professional Certification

Registered Professional Engineer in the State of Missouri
Registration Number: 2001018805

Missouri Department of Natural Resources Public Drinking Water Program
Drinking Water Treatment- Certification Level D

Missouri Department of Natural Resources Clean Water Commission
Wastewater Treatment- Certification Level D

Previous Testimony Before the Commission

Case Number WC-2007-0303: Plant Capacity - Evidentiary Hearing/Live Testimony
Case Number WC-2006-0248: Billing Complaint - Evidentiary Hearing/Live Testimony

AN ANALYSIS OF THE COST OF CAPITAL

FOR

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2008-0311

SCHEDULES

BY

MATTHEW J. BARNES

UTILITY SERVICES DIVISION

MISSOURI PUBLIC SERVICE COMMISSION

AUGUST 2008

Missouri-American Water Company
WR-2008-0311

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Missouri-American Water Company
WR-2008-0311

Federal Reserve Discount Rate Changes and Federal Reserve Funds Rate Changes

Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate	Date	Federal Reserve Discount Rate	Federal Reserve Funds Rate
01/01/83	8.50%		06/30/99	4.50%	5.00%
12/31/83	8.50%		08/24/99	4.75%	5.25%
04/09/84	9.00%		11/16/99	5.00%	5.50%
11/21/84	8.50%		02/02/00	5.25%	5.75%
12/24/84	8.00%		03/21/00	5.50%	6.00%
05/20/85	7.50%		05/19/00	6.00%	6.50%
03/07/86	7.00%		01/03/01	5.75%	6.00%
04/21/86	6.50%		01/04/01	5.50%	6.00%
07/11/86	6.00%		01/31/01	5.00%	5.50%
08/21/86	5.50%		03/20/01	4.50%	5.00%
09/04/87	6.00%		04/18/01	4.00%	4.50%
08/09/88	6.50%		05/15/01	3.50%	4.00%
02/24/89	7.00%		06/27/01	3.25%	3.75%
07/13/90		8.00% *	08/21/01	3.00%	3.50%
10/29/90		7.75%	09/17/01	2.50%	3.00%
11/13/90		7.50%	10/02/01	2.00%	2.50%
12/07/90		7.25%	11/06/01	1.50%	2.00%
12/18/90		7.00%	12/11/01	1.25%	1.75%
12/19/90	6.50%		11/06/02	0.75%	1.25%
01/09/91		6.75%	01/09/03	2.25%**	1.25%
02/01/91	6.00%	6.25%	06/25/03	2.00%	1.00%
03/08/91		6.00%	06/30/04	2.25%	1.25%
04/30/91	5.50%	5.75%	08/10/04	2.50%	1.50%
08/06/91		5.50%	09/21/04	2.75%	1.75%
09/13/91	5.00%	5.25%	11/10/04	3.00%	2.00%
10/31/91		5.00%	12/14/04	3.25%	2.25%
11/06/91	4.50%	4.75%	02/02/05	3.50%	2.50%
12/06/91		4.50%	03/22/05	3.75%	2.75%
12/20/91	3.50%	4.00%	05/03/05	4.00%	3.00%
04/09/92		3.75%	06/30/05	4.25%	3.25%
07/02/92	3.00%	3.25%	08/09/05	4.50%	3.50%
09/04/92		3.00%	09/20/05	4.75%	3.75%
01/01/93			11/01/05	5.00%	4.00%
12/31/93	No Changes	No Changes	12/13/05	5.25%	4.25%
02/04/94		3.25%	01/31/06	5.50%	4.50%
03/22/94		3.50%	03/28/06	5.75%	4.75%
04/18/94		3.75%	05/10/06	6.00%	5.00%
05/17/94	3.50%	4.25%	06/29/06	6.25%	5.25%
08/16/94	4.00%	4.75%	08/17/07	5.75%	5.25%
11/15/94	4.75%	5.50%	09/18/07	5.25%	4.75%
02/01/95	5.25%	6.00%	10/31/07	5.00%	4.50%
07/06/95		5.75%	12/11/07	4.75%	4.25%
12/19/95		5.50%	01/22/08	4.00%	3.50%
01/31/96	5.00%	5.25%	01/30/08	3.50%	3.00%
03/25/97		5.50%	03/16/08	3.25%	
12/12/97	5.00%		03/18/08	2.50%	2.25%
01/09/98	5.00%		04/30/08	2.25%	2.00%
03/06/98	5.00%				
09/29/98		5.25%			
10/15/98	4.75%	5.00%			
11/17/98	4.50%	4.75%			

* Staff began tracking the Federal Funds Rate.

**Revised discount window program begins. Reflects rate on primary credit. This revised discount window policy results in incomparability of the discount rates after January 9, 2003 to discount rates before January 9, 2003.

Source:

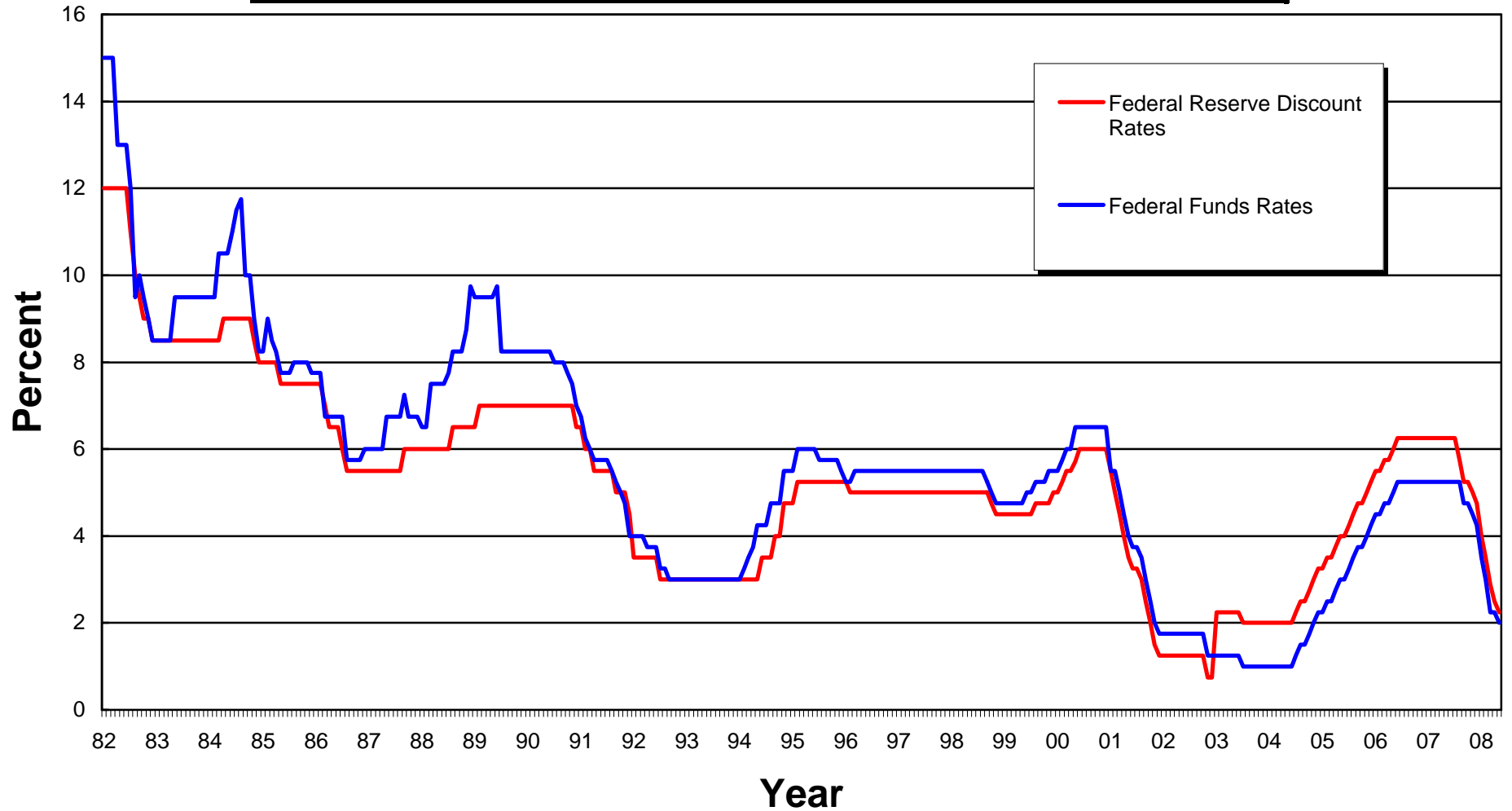
Federal Reserve Discount rate <http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html>

Federal Reserve Funds rate <http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html>

Note: Interest rates as of December 31 for each year are underlined.

Federal Reserve Discount Rates and Federal Funds Rates

1982 - 2008

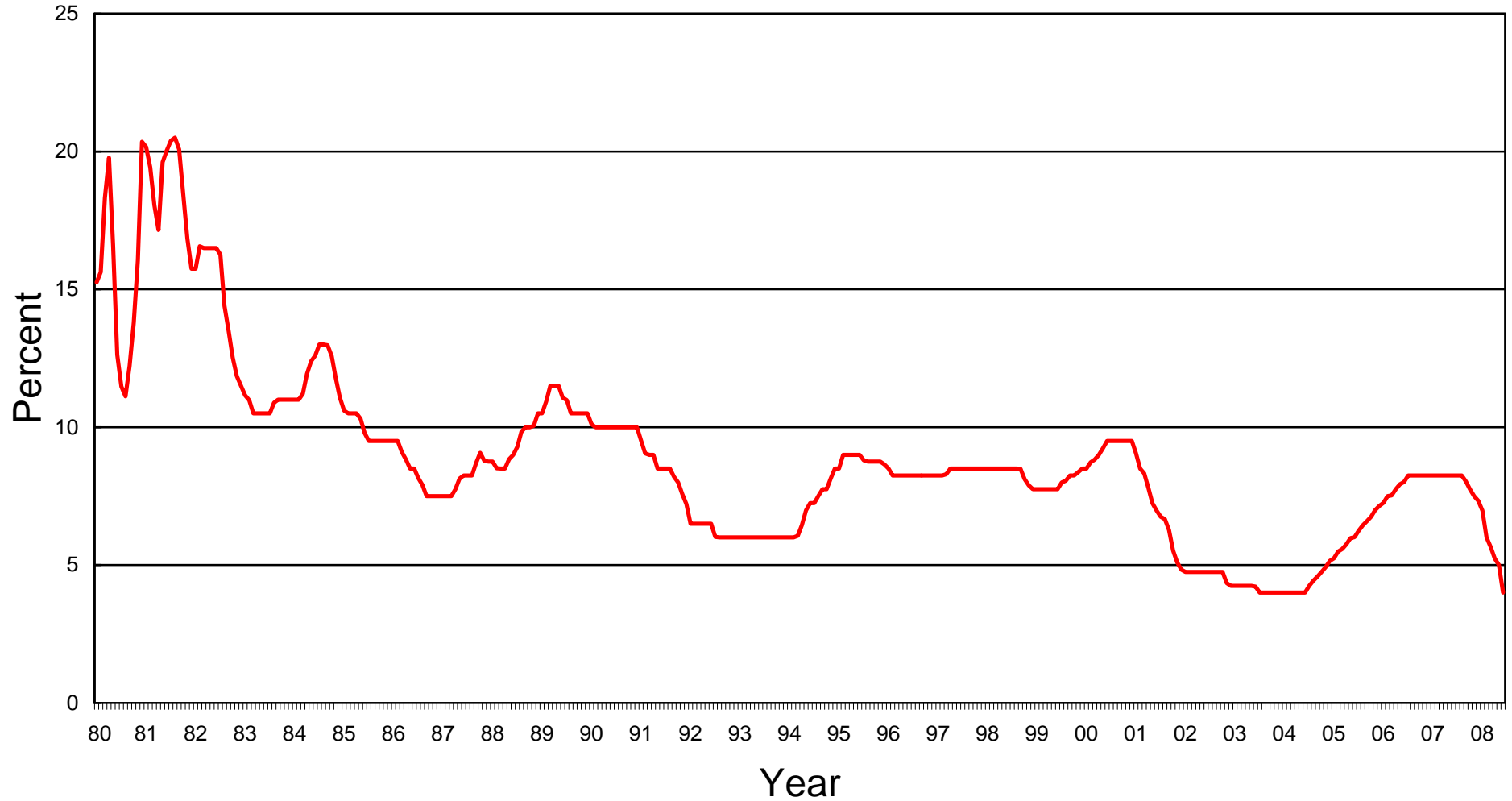


Missouri-American Water Company
WR-2008-0311
Average Prime Interest Rates

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	15.25	Jan 1984	11.00	Jan 1988	8.75	Jan 1992	6.50	Jan 1996	8.50	Jan 2000	8.50	Jan 2004	4.00	Jan 2008	6.98
Feb	15.63	Feb	11.00	Feb	8.51	Feb	6.50	Feb	8.25	Feb	8.73	Feb	4.00	Feb	6.00
Mar	18.31	Mar	11.21	Mar	8.50	Mar	6.50	Mar	8.25	Mar	8.83	Mar	4.00	Mar	5.66
Apr	19.77	Apr	11.93	Apr	8.50	Apr	6.50	Apr	8.25	Apr	9.00	Apr	4.00	Apr	5.24
May	16.57	May	12.39	May	8.84	May	6.50	May	8.25	May	9.24	May	4.00	May	5.00
Jun	12.63	Jun	12.60	Jun	9.00	Jun	6.50	Jun	8.25	Jun	9.50	Jun	4.00	Jun	4.00
Jul	11.48	Jul	13.00	Jul	9.29	Jul	6.02	Jul	8.25	Jul	9.50	Jul	4.25		
Aug	11.12	Aug	13.00	Aug	9.84	Aug	6.00	Aug	8.25	Aug	9.50	Aug	4.43		
Sep	12.23	Sep	12.97	Sep	10.00	Sep	6.00	Sep	8.25	Sep	9.50	Sep	4.58		
Oct	13.79	Oct	12.58	Oct	10.00	Oct	6.00	Oct	8.25	Oct	9.50	Oct	4.75		
Nov	16.06	Nov	11.77	Nov	10.05	Nov	6.00	Nov	8.25	Nov	9.50	Nov	4.93		
Dec	20.35	Dec	11.06	Dec	10.50	Dec	6.00	Dec	8.25	Dec	9.50	Dec	5.15		
Jan 1981	20.16	Jan 1985	10.61	Jan 1989	10.50	Jan 1993	6.00	Jan 1997	8.26	Jan 2001	9.05	Jan 2005	5.25		
Feb	19.43	Feb	10.50	Feb	10.93	Feb	6.00	Feb	8.25	Feb	8.50	Feb	5.49		
Mar	18.05	Mar	10.50	Mar	11.50	Mar	6.00	Mar	8.30	Mar	8.32	Mar	5.58		
Apr	17.15	Apr	10.50	Apr	11.50	Apr	6.00	Apr	8.50	Apr	7.80	Apr	5.75		
May	19.61	May	10.31	May	11.50	May	6.00	May	8.50	May	7.24	May	5.98		
Jun	20.03	Jun	9.78	Jun	11.07	Jun	6.00	Jun	8.50	Jun	6.98	Jun	6.01		
Jul	20.39	Jul	9.50	Jul	10.98	Jul	6.00	Jul	8.50	Jul	6.75	Jul	6.25		
Aug	20.50	Aug	9.50	Aug	10.50	Aug	6.00	Aug	8.50	Aug	6.67	Aug	6.44		
Sep	20.08	Sep	9.50	Sep	10.50	Sep	6.00	Sep	8.50	Sep	6.28	Sep	6.59		
Oct	18.45	Oct	9.50	Oct	10.50	Oct	6.00	Oct	8.50	Oct	5.53	Oct	6.75		
Nov	16.84	Nov	9.50	Nov	10.50	Nov	6.00	Nov	8.50	Nov	5.10	Nov	7.00		
Dec	15.75	Dec	9.50	Dec	10.50	Dec	6.00	Dec	8.50	Dec	4.84	Dec	7.15		
Jan 1982	15.75	Jan 1986	9.50	Jan 1990	10.11	Jan 1994	6.00	Jan 1998	8.50	Jan 2002	4.75	Jan 2006	7.26		
Feb	16.56	Feb	9.50	Feb	10.00	Feb	6.00	Feb	8.50	Feb	4.75	Feb	7.50		
Mar	16.50	Mar	9.10	Mar	10.00	Mar	6.06	Mar	8.50	Mar	4.75	Mar	7.53		
Apr	16.50	Apr	8.83	Apr	10.00	Apr	6.45	Apr	8.50	Apr	4.75	Apr	7.75		
May	16.50	May	8.50	May	10.00	May	6.99	May	8.50	May	4.75	May	7.93		
Jun	16.50	Jun	8.50	Jun	10.00	Jun	7.25	Jun	8.50	Jun	4.75	June	8.02		
Jul	16.26	Jul	8.16	Jul	10.00	Jul	7.25	Jul	8.50	Jul	4.75	July	8.25		
Aug	14.39	Aug	7.90	Aug	10.00	Aug	7.51	Aug	8.50	Aug	4.75	Aug	8.25		
Sep	13.50	Sep	7.50	Sep	10.00	Sep	7.75	Sep	8.49	Sep	4.75	Sep	8.25		
Oct	12.52	Oct	7.50	Oct	10.00	Oct	7.75	Oct	8.12	Oct	4.75	Oct	8.25		
Nov	11.85	Nov	7.50	Nov	10.00	Nov	8.15	Nov	7.89	Nov	4.35	Nov	8.25		
Dec	11.50	Dec	7.50	Dec	10.00	Dec	8.50	Dec	7.75	Dec	4.25	Dec	8.25		
Jan 1983	11.16	Jan 1987	7.50	Jan 1991	9.52	Jan 1995	8.50	Jan 1999	7.75	Jan 2003	4.25	Jan 2007	8.25		
Feb	10.98	Feb	7.50	Feb	9.05	Feb	9.00	Feb	7.75	Feb	4.25	Feb	8.25		
Mar	10.50	Mar	7.50	Mar	9.00	Mar	9.00	Mar	7.75	Mar	4.25	Mar	8.25		
Apr	10.50	Apr	7.75	Apr	9.00	Apr	9.00	Apr	7.75	Apr	4.25	Apr	8.25		
May	10.50	May	8.14	May	8.50	May	9.00	May	7.75	May	4.25	May	8.25		
Jun	10.50	Jun	8.25	Jun	8.50	Jun	9.00	Jun	7.75	Jun	4.22	Jun	8.25		
Jul	10.50	Jul	8.25	Jul	8.50	Jul	8.80	Jul	8.00	Jul	4.00	Jul	8.25		
Aug	10.89	Aug	8.25	Aug	8.50	Aug	8.75	Aug	8.06	Aug	4.00	Aug	8.25		
Sep	11.00	Sep	8.70	Sep	8.20	Sep	8.75	Sep	8.25	Sep	4.00	Sep	8.03		
Oct	11.00	Oct	9.07	Oct	8.00	Oct	8.75	Oct	8.25	Oct	4.00	Oct	7.74		
Nov	11.00	Nov	8.78	Nov	7.58	Nov	8.75	Nov	8.37	Nov	4.00	Nov	7.50		
Dec	11.00	Dec	8.75	Dec	7.21	Dec	8.65	Dec	8.50	Dec	4.00	Dec	7.33		

Source:
<http://research.stlouisfed.org/fred2/data/MPRIME.txt>

Average Prime Interest Rates
1980 - 2008



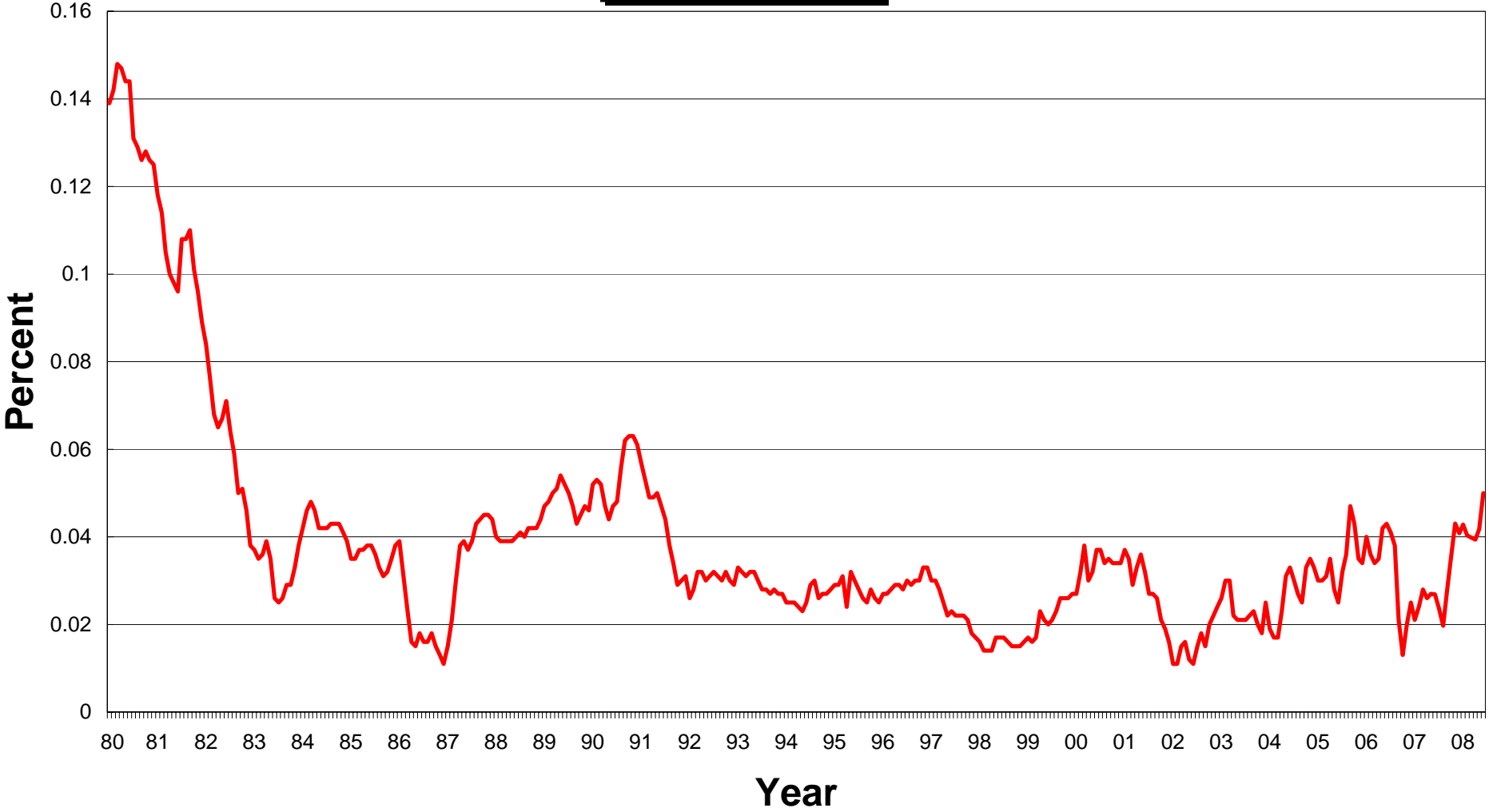
**Missouri-American Water Company
WR-2008-0311**

Rate of Inflation

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	13.90	Jan 1984	4.20	Jan 1988	4.00	Jan 1992	2.60	Jan 1996	2.70	Jan 2000	2.70	Jan 2004	1.90	Jan 2008	4.30
Feb	14.20	Feb	4.60	Feb	3.90	Feb	2.80	Feb	2.70	Feb	3.20	Feb	1.70	Feb	4.00
Mar	14.80	Mar	4.80	Mar	3.90	Mar	3.20	Mar	2.80	Mar	3.70	Mar	1.70	Mar	4.00
Apr	14.70	Apr	4.60	Apr	3.90	Apr	3.20	Apr	2.90	Apr	3.00	Apr	2.30	Apr	3.90
May	14.40	May	4.20	May	3.90	May	3.00	May	2.90	May	3.20	May	3.10	May	4.20
Jun	14.40	Jun	4.20	Jun	4.00	Jun	3.10	Jun	2.80	Jun	3.70	Jun	3.30	Jun	5.00
Jul	13.10	Jul	4.20	Jul	4.10	Jul	3.20	Jul	3.00	Jul	3.70	Jul	3.00		
Aug	12.90	Aug	4.30	Aug	4.00	Aug	3.10	Aug	2.90	Aug	3.40	Aug	2.70		
Sep	12.60	Sep	4.30	Sep	4.20	Sep	3.00	Sep	3.00	Sep	3.50	Sep	2.50		
Oct	12.80	Oct	4.30	Oct	4.20	Oct	3.20	Oct	3.00	Oct	3.40	Oct	3.30		
Nov	12.60	Nov	4.10	Nov	4.20	Nov	3.00	Nov	3.30	Nov	3.40	Nov	3.50		
Dec	12.50	Dec	3.90	Dec	4.40	Dec	2.90	Dec	3.30	Dec	3.40	Dec	3.30		
Jan 1981	11.80	Jan 1985	3.50	Jan 1989	4.70	Jan 1993	3.30	Jan 1997	3.00	Jan 2001	3.70	Jan 2005	3.00		
Feb	11.40	Feb	3.50	Feb	4.80	Feb	3.20	Feb	3.00	Feb	3.50	Feb	3.00		
Mar	10.50	Mar	3.70	Mar	5.00	Mar	3.10	Mar	2.80	Mar	2.90	Mar	3.10		
Apr	10.00	Apr	3.70	Apr	5.10	Apr	3.20	Apr	2.50	Apr	3.30	Apr	3.50		
May	9.80	May	3.80	May	5.40	May	3.20	May	2.20	May	3.60	May	2.80		
Jun	9.60	Jun	3.80	Jun	5.20	Jun	3.00	Jun	2.30	Jun	3.20	Jun	2.50		
Jul	10.80	Jul	3.60	Jul	5.00	Jul	2.80	Jul	2.20	Jul	2.70	Jul	3.20		
Aug	10.80	Aug	3.30	Aug	4.70	Aug	2.80	Aug	2.20	Aug	2.70	Aug	3.60		
Sep	11.00	Sep	3.10	Sep	4.30	Sep	2.70	Sep	2.20	Sep	2.60	Sep	4.70		
Oct	10.10	Oct	3.20	Oct	4.50	Oct	2.80	Oct	2.10	Oct	2.10	Oct	4.30		
Nov	9.60	Nov	3.50	Nov	4.70	Nov	2.70	Nov	1.80	Nov	1.90	Nov	3.50		
Dec	8.90	Dec	3.80	Dec	4.60	Dec	2.70	Dec	1.70	Dec	1.60	Dec	3.40		
Jan 1982	8.40	Jan 1986	3.90	Jan 1990	5.20	Jan 1994	2.50	Jan 1998	1.60	Jan 2002	1.10	Jan 2006	4.00		
Feb	7.60	Feb	3.10	Feb	5.30	Feb	2.50	Feb	1.40	Feb	1.10	Feb	3.60		
Mar	6.80	Mar	2.30	Mar	5.20	Mar	2.50	Mar	1.40	Mar	1.50	Mar	3.40		
Apr	6.50	Apr	1.60	Apr	4.70	Apr	2.40	Apr	1.40	Apr	1.60	Apr	3.50		
May	6.70	May	1.50	May	4.40	May	2.30	May	1.70	May	1.20	May	4.20		
Jun	7.10	Jun	1.80	Jun	4.70	Jun	2.50	Jun	1.70	Jun	1.10	June	4.30		
Jul	6.40	Jul	1.60	Jul	4.80	Jul	2.90	Jul	1.70	Jul	1.50	July	4.10		
Aug	5.90	Aug	1.60	Aug	5.60	Aug	3.00	Aug	1.60	Aug	1.80	Aug	3.80		
Sep	5.00	Sep	1.80	Sep	6.20	Sep	2.60	Sep	1.50	Sep	1.50	Sep	2.10		
Oct	5.10	Oct	1.50	Oct	6.30	Oct	2.70	Oct	1.50	Oct	2.00	Oct	1.30		
Nov	4.60	Nov	1.30	Nov	6.30	Nov	2.70	Nov	1.50	Nov	2.20	Nov	2.00		
Dec	3.80	Dec	1.10	Dec	6.10	Dec	2.80	Dec	1.60	Dec	2.40	Dec	2.50		
Jan 1983	3.70	Jan 1987	1.50	Jan 1991	5.70	Jan 1995	2.90	Jan 1999	1.70	Jan 2003	2.60	Jan 2007	2.10		
Feb	3.50	Feb	2.10	Feb	5.30	Feb	2.90	Feb	1.60	Feb	3.00	Feb	2.40		
Mar	3.60	Mar	3.00	Mar	4.90	Mar	3.10	Mar	1.70	Mar	3.00	Mar	2.80		
Apr	3.90	Apr	3.80	Apr	4.90	Apr	2.40	Apr	2.30	Apr	2.20	Apr	2.60		
May	3.50	May	3.90	May	5.00	May	3.20	May	2.10	May	2.10	May	2.70		
Jun	2.60	Jun	3.70	Jun	4.70	Jun	3.00	Jun	2.00	Jun	2.10	Jun	2.70		
Jul	2.50	Jul	3.90	Jul	4.40	Jul	2.80	Jul	2.10	Jul	2.10	Jul	2.40		
Aug	2.60	Aug	4.30	Aug	3.80	Aug	2.60	Aug	2.30	Aug	2.20	Aug	2.00		
Sep	2.90	Sep	4.40	Sep	3.40	Sep	2.50	Sep	2.60	Sep	2.30	Sep	2.80		
Oct	2.90	Oct	4.50	Oct	2.90	Oct	2.80	Oct	2.60	Oct	2.00	Oct	3.50		
Nov	3.30	Nov	4.50	Nov	3.00	Nov	2.60	Nov	2.60	Nov	1.80	Nov	4.30		
Dec	3.80	Dec	4.40	Dec	3.10	Dec	2.50	Dec	2.70	Dec	1.90	Dec	4.10		

Source: U.S. Dept of Labor, Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers,
Change for 12-Month Period, Bureau of Labor Statistics,
http://www.bls.gov/schedule/archives/cpi_nr.htm

Rate of Inflation
1980 - 2008



**Missouri-American Water Company
WR-2008-0311**

Average Yields on Mergent's Public Utility Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	12.12	Jan 1984	13.40	Jan 1988	10.75	Jan 1992	8.67	Jan 1996	7.20	Jan 2000	8.22	Jan 2004	6.23	Jan 2008	6.08
Feb	13.48	Feb	13.50	Feb	10.11	Feb	8.77	Feb	7.37	Feb	8.10	Feb	6.17	Feb	6.28
Mar	14.33	Mar	14.03	Mar	10.11	Mar	8.84	Mar	7.72	Mar	8.14	Mar	6.01	Mar	6.29
Apr	13.50	Apr	14.30	Apr	10.53	Apr	8.79	Apr	7.88	Apr	8.14	Apr	6.38	Apr	6.36
May	12.17	May	14.95	May	10.75	May	8.72	May	7.99	May	8.55	May	6.68	May	6.38
Jun	11.87	Jun	15.16	Jun	10.71	Jun	8.64	Jun	8.07	Jun	8.22	Jun	6.53	Jun	6.50
Jul	12.12	Jul	14.92	Jul	10.96	Jul	8.46	Jul	8.02	Jul	8.17	Jul	6.34		
Aug	12.82	Aug	14.29	Aug	11.09	Aug	8.34	Aug	7.84	Aug	8.05	Aug	6.18		
Sep	13.29	Sep	14.04	Sep	10.56	Sep	8.32	Sep	8.01	Sep	8.16	Sep	6.01		
Oct	13.53	Oct	13.68	Oct	9.92	Oct	8.44	Oct	7.76	Oct	8.08	Oct	5.95		
Nov	14.07	Nov	13.15	Nov	9.89	Nov	8.53	Nov	7.48	Nov	8.03	Nov	5.97		
Dec	14.48	Dec	12.96	Dec	10.02	Dec	8.36	Dec	7.58	Dec	7.79	Dec	5.93		
Jan 1981	14.22	Jan 1985	12.88	Jan 1989	10.02	Jan 1993	8.23	Jan 1997	7.79	Jan 2001	7.76	Jan 2005	5.80		
Feb	14.84	Feb	13.00	Feb	10.02	Feb	8.00	Feb	7.68	Feb	7.69	Feb	5.64		
Mar	14.86	Mar	13.66	Mar	10.16	Mar	7.85	Mar	7.92	Mar	7.59	Mar	5.86		
Apr	15.32	Apr	13.42	Apr	10.14	Apr	7.76	Apr	8.08	Apr	7.81	Apr	5.72		
May	15.84	May	12.89	May	9.92	May	7.78	May	7.94	May	7.88	May	5.60		
Jun	15.27	Jun	11.91	Jun	9.49	Jun	7.68	Jun	7.77	Jun	7.75	Jun	5.39		
Jul	15.87	Jul	11.88	Jul	9.34	Jul	7.53	Jul	7.52	Jul	7.71	Jul	5.50		
Aug	16.33	Aug	11.93	Aug	9.37	Aug	7.21	Aug	7.57	Aug	7.57	Aug	5.51		
Sep	16.89	Sep	11.95	Sep	9.43	Sep	7.01	Sep	7.50	Sep	7.73	Sep	5.54		
Oct	16.76	Oct	11.84	Oct	9.37	Oct	6.99	Oct	7.37	Oct	7.64	Oct	5.79		
Nov	15.50	Nov	11.33	Nov	9.33	Nov	7.30	Nov	7.24	Nov	7.61	Nov	5.88		
Dec	15.77	Dec	10.82	Dec	9.31	Dec	7.33	Dec	7.16	Dec	7.86	Dec	5.83		
Jan 1982	16.73	Jan 1986	10.66	Jan 1990	9.44	Jan 1994	7.31	Jan 1998	7.03	Jan 2002	7.69	Jan 2006	5.77		
Feb	16.72	Feb	10.16	Feb	9.66	Feb	7.44	Feb	7.09	Feb	7.62	Feb	5.83		
Mar	16.07	Mar	9.33	Mar	9.75	Mar	7.83	Mar	7.13	Mar	7.83	Mar	5.98		
Apr	15.82	Apr	9.02	Apr	9.87	Apr	8.20	Apr	7.12	Apr	7.74	Apr	6.28		
May	15.60	May	9.52	May	9.89	May	8.32	May	7.11	May	7.76	May	6.39		
Jun	16.18	Jun	9.51	Jun	9.69	Jun	8.31	Jun	6.99	Jun	7.67	June	6.39		
Jul	16.04	Jul	9.19	Jul	9.66	Jul	8.47	Jul	6.99	Jul	7.54	July	6.37		
Aug	15.22	Aug	9.15	Aug	9.84	Aug	8.41	Aug	6.96	Aug	7.34	Aug	6.20		
Sep	14.56	Sep	9.42	Sep	10.01	Sep	8.65	Sep	6.88	Sep	7.23	Sep	6.03		
Oct	13.88	Oct	9.39	Oct	9.94	Oct	8.88	Oct	6.88	Oct	7.43	Oct	6.01		
Nov	13.58	Nov	9.15	Nov	9.76	Nov	9.00	Nov	6.96	Nov	7.31	Nov	5.82		
Dec	13.55	Dec	8.96	Dec	9.57	Dec	8.79	Dec	6.84	Dec	7.20	Dec	5.83		
Jan 1983	13.46	Jan 1987	8.77	Jan 1991	9.56	Jan 1995	8.77	Jan 1999	6.87	Jan 2003	7.13	Jan 2007	5.96		
Feb	13.60	Feb	8.81	Feb	9.31	Feb	8.56	Feb	7.00	Feb	6.92	Feb	5.91		
Mar	13.28	Mar	8.75	Mar	9.39	Mar	8.41	Mar	7.18	Mar	6.80	Mar	5.87		
Apr	13.03	Apr	9.30	Apr	9.30	Apr	8.30	Apr	7.16	Apr	6.68	Apr	6.01		
May	13.00	May	9.82	May	9.29	May	7.93	May	7.42	May	6.35	May	6.03		
Jun	13.17	Jun	9.87	Jun	9.44	Jun	7.62	Jun	7.70	Jun	6.21	June	6.34		
Jul	13.28	Jul	10.01	Jul	9.40	Jul	7.73	Jul	7.66	Jul	6.54	July	6.28		
Aug	13.50	Aug	10.33	Aug	9.16	Aug	7.86	Aug	7.86	Aug	6.78	Aug	6.28		
Sep	13.35	Sep	11.00	Sep	9.03	Sep	7.62	Sep	7.87	Sep	6.58	Sep	6.24		
Oct	13.19	Oct	11.32	Oct	8.99	Oct	7.46	Oct	8.02	Oct	6.50	Oct	6.17		
Nov	13.33	Nov	10.82	Nov	8.93	Nov	7.40	Nov	7.86	Nov	6.44	Nov	6.04		
Dec	13.48	Dec	10.99	Dec	8.76	Dec	7.21	Dec	8.04	Dec	6.36	Dec	6.23		

Source:
Mergent Bond Record

**Missouri-American Water Company
WR-2008-0311**

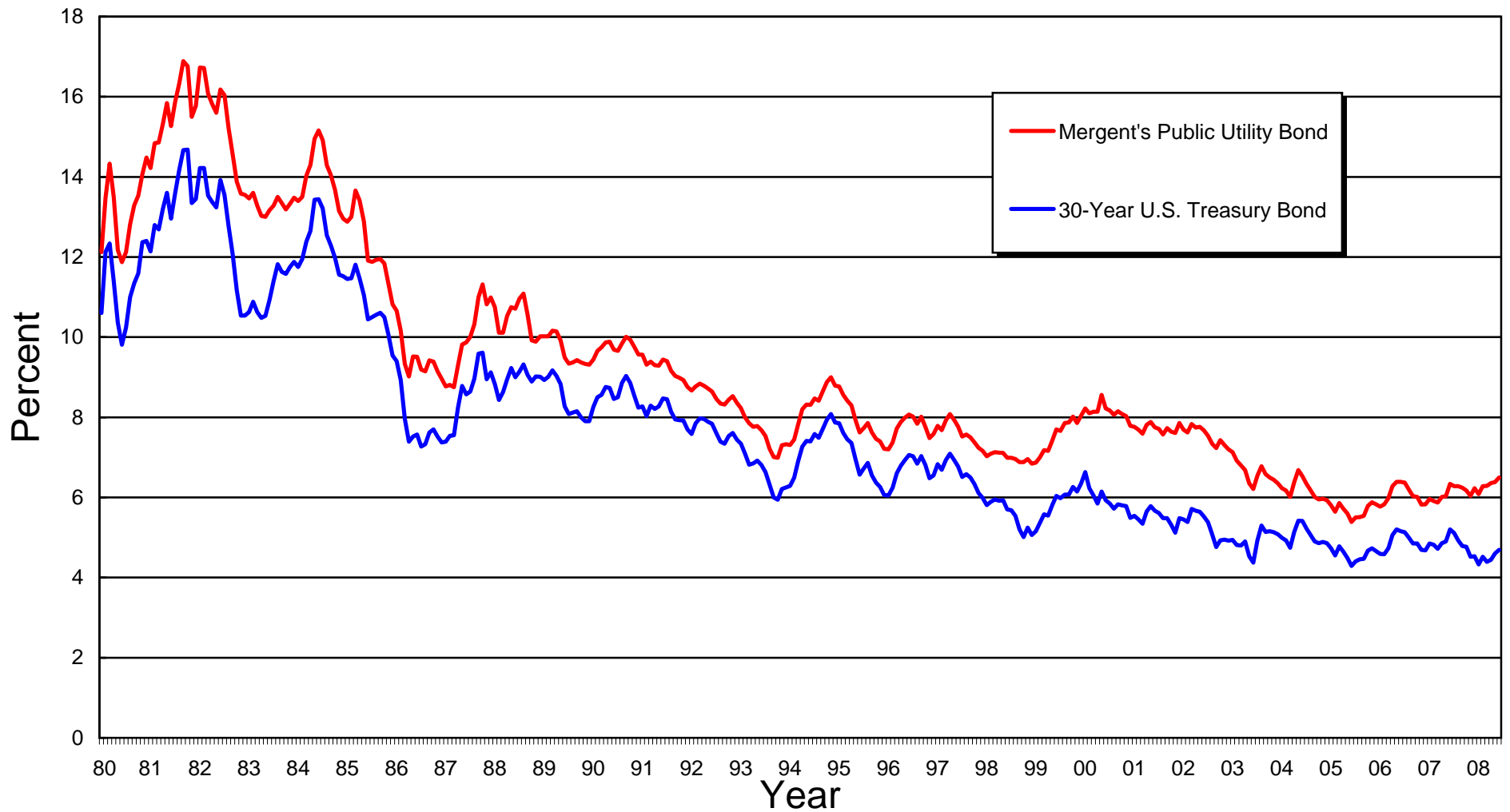
Average Yields on Thirty-Year U.S. Treasury Bonds

Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)	Mo/Year	Rate (%)
Jan 1980	10.60	Jan 1984	11.75	Jan 1988	8.83	Jan 1992	7.58	Jan 1996	6.05	Jan 2000	6.63	Jan 2004	4.99	Jan 2008	4.33
Feb	12.13	Feb	11.95	Feb	8.43	Feb	7.85	Feb	6.24	Feb	6.23	Feb	4.93	Feb	4.52
Mar	12.34	Mar	12.38	Mar	8.63	Mar	7.97	Mar	6.60	Mar	6.05	Mar	4.74	Mar	4.39
Apr	11.40	Apr	12.65	Apr	8.95	Apr	7.96	Apr	6.79	Apr	5.85	Apr	5.14	Apr	4.44
May	10.36	May	13.43	May	9.23	May	7.89	May	6.93	May	6.15	May	5.42	May	4.60
Jun	9.81	Jun	13.44	Jun	9.00	Jun	7.84	Jun	7.06	Jun	5.93	Jun	5.41	Jun	4.69
Jul	10.24	Jul	13.21	Jul	9.14	Jul	7.60	Jul	7.03	Jul	5.85	Jul	5.22		
Aug	11.00	Aug	12.54	Aug	9.32	Aug	7.39	Aug	6.84	Aug	5.72	Aug	5.06		
Sep	11.34	Sep	12.29	Sep	9.06	Sep	7.34	Sep	7.03	Sep	5.83	Sep	4.90		
Oct	11.59	Oct	11.98	Oct	8.89	Oct	7.53	Oct	6.81	Oct	5.80	Oct	4.86		
Nov	12.37	Nov	11.56	Nov	9.02	Nov	7.61	Nov	6.48	Nov	5.78	Nov	4.89		
Dec	12.40	Dec	11.52	Dec	9.01	Dec	7.44	Dec	6.55	Dec	5.49	Dec	4.86		
Jan 1981	12.14	Jan 1985	11.45	Jan 1989	8.93	Jan 1993	7.34	Jan 1997	6.83	Jan 2001	5.54	Jan 2005	4.73		
Feb	12.80	Feb	11.47	Feb	9.01	Feb	7.09	Feb	6.69	Feb	5.45	Feb	4.55		
Mar	12.69	Mar	11.81	Mar	9.17	Mar	6.82	Mar	6.93	Mar	5.34	Mar	4.78		
Apr	13.20	Apr	11.47	Apr	9.03	Apr	6.85	Apr	7.09	Apr	5.65	Apr	4.65		
May	13.60	May	11.05	May	8.83	May	6.92	May	6.94	May	5.78	May	4.49		
Jun	12.96	Jun	10.44	Jun	8.27	Jun	6.81	Jun	6.77	Jun	5.67	Jun	4.29		
Jul	13.59	Jul	10.50	Jul	8.08	Jul	6.63	Jul	6.51	Jul	5.61	Jul	4.41		
Aug	14.17	Aug	10.56	Aug	8.12	Aug	6.32	Aug	6.58	Aug	5.48	Aug	4.46		
Sep	14.67	Sep	10.61	Sep	8.15	Sep	6.00	Sep	6.50	Sep	5.48	Sep	4.47		
Oct	14.68	Oct	10.50	Oct	8.00	Oct	5.94	Oct	6.33	Oct	5.32	Oct	4.67		
Nov	13.35	Nov	10.06	Nov	7.90	Nov	6.21	Nov	6.11	Nov	5.12	Nov	4.73		
Dec	13.45	Dec	9.54	Dec	7.90	Dec	6.25	Dec	5.99	Dec	5.48	Dec	4.66		
Jan 1982	14.22	Jan 1986	9.40	Jan 1990	8.26	Jan 1994	6.29	Jan 1998	5.81	Jan 2002	5.44	Jan 2006	4.59		
Feb	14.22	Feb	8.93	Feb	8.50	Feb	6.49	Feb	5.89	Feb	5.39	Feb	4.58		
Mar	13.53	Mar	7.96	Mar	8.56	Mar	6.91	Mar	5.95	Mar	5.71	Mar	4.73		
Apr	13.37	Apr	7.39	Apr	8.76	Apr	7.27	Apr	5.92	Apr	5.67	Apr	5.06		
May	13.24	May	7.52	May	8.73	May	7.41	May	5.93	May	5.64	May	5.20		
Jun	13.92	Jun	7.57	Jun	8.46	Jun	7.40	Jun	5.70	Jun	5.52	Jun	5.16		
Jul	13.55	Jul	7.27	Jul	8.50	Jul	7.58	Jul	5.68	Jul	5.38	July	5.13		
Aug	12.77	Aug	7.33	Aug	8.86	Aug	7.49	Aug	5.54	Aug	5.08	Aug	5.00		
Sep	12.07	Sep	7.62	Sep	9.03	Sep	7.71	Sep	5.20	Sep	4.76	Sep	4.85		
Oct	11.17	Oct	7.70	Oct	8.86	Oct	7.94	Oct	5.01	Oct	4.93	Oct	4.85		
Nov	10.54	Nov	7.52	Nov	8.54	Nov	8.08	Nov	5.25	Nov	4.95	Nov	4.69		
Dec	10.54	Dec	7.37	Dec	8.24	Dec	7.87	Dec	5.06	Dec	4.92	Dec	4.68		
Jan 1983	10.63	Jan 1987	7.39	Jan 1991	8.27	Jan 1995	7.85	Jan 1999	5.16	Jan 2003	4.94	Jan 2007	4.85		
Feb	10.88	Feb	7.54	Feb	8.03	Feb	7.61	Feb	5.37	Feb	4.81	Feb	4.82		
Mar	10.63	Mar	7.55	Mar	8.29	Mar	7.45	Mar	5.58	Mar	4.80	Mar	4.72		
Apr	10.48	Apr	8.25	Apr	8.21	Apr	7.36	Apr	5.55	Apr	4.90	Apr	4.86		
May	10.53	May	8.78	May	8.27	May	6.95	May	5.81	May	4.53	May	4.90		
Jun	10.93	Jun	8.57	Jun	8.47	Jun	6.57	Jun	6.04	Jun	4.37	Jun	5.20		
Jul	11.40	Jul	8.64	Jul	8.45	Jul	6.72	Jul	5.98	Jul	4.93	July	5.11		
Aug	11.82	Aug	8.97	Aug	8.14	Aug	6.86	Aug	6.07	Aug	5.30	Aug	4.93		
Sep	11.63	Sep	9.59	Sep	7.95	Sep	6.55	Sep	6.07	Sep	5.14	Sep	4.79		
Oct	11.58	Oct	9.61	Oct	7.93	Oct	6.37	Oct	6.26	Oct	5.16	Oct	4.77		
Nov	11.75	Nov	8.95	Nov	7.92	Nov	6.26	Nov	6.15	Nov	5.13	Nov	4.52		
Dec	11.88	Dec	9.12	Dec	7.70	Dec	6.06	Dec	6.35	Dec	5.08	Dec	4.53		

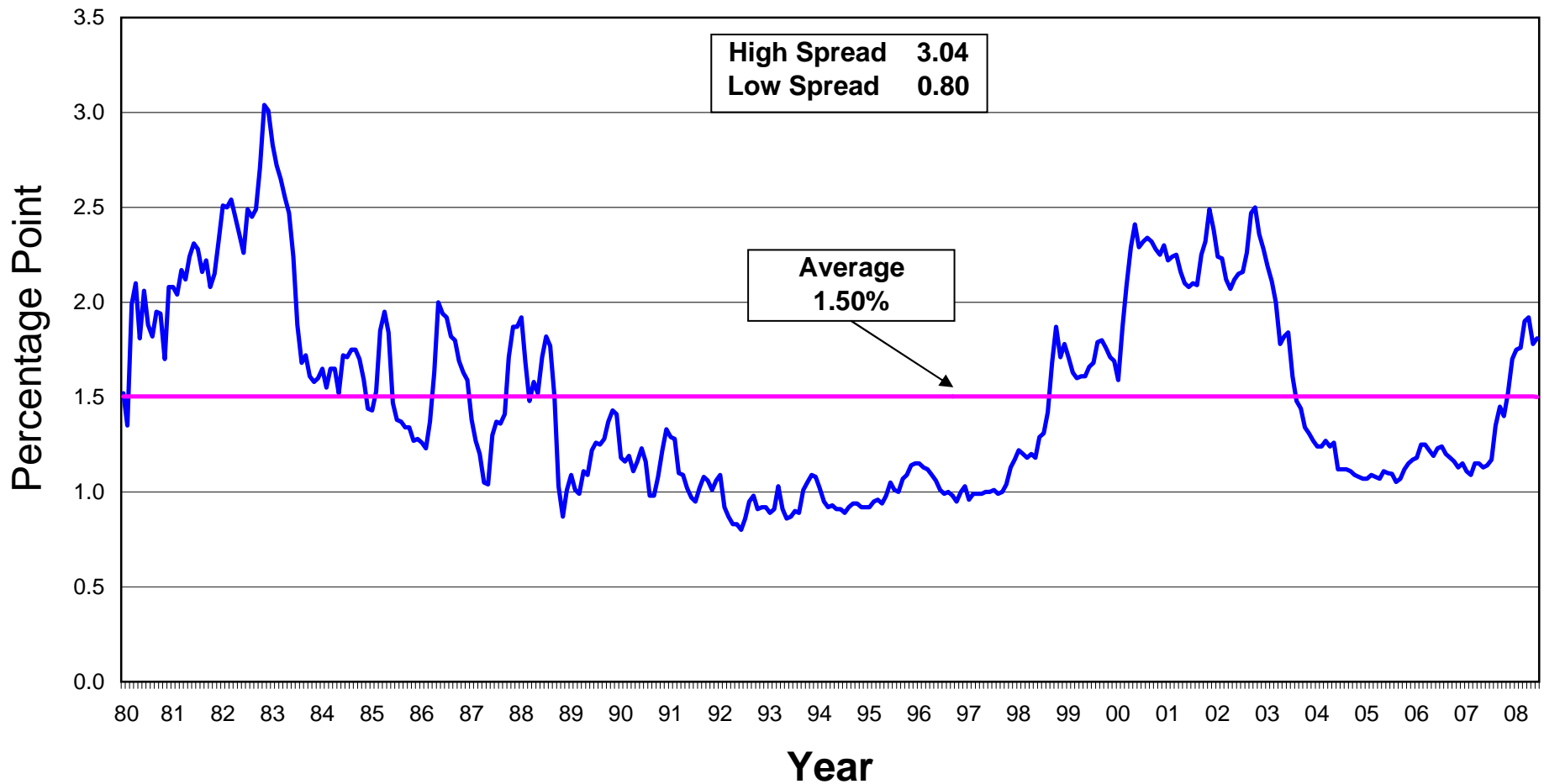
Sources:

<http://finance.yahoo.com/q/hp?s=^TYX>

**Average Yields on Mergent's Public Utility Bonds and
Thirty-Year U.S. Treasury Bonds (1980 - 2008)**



Monthly Spreads Between Yields on Mergent's Public Utility Bonds
and
Thirty-Year U.S. Treasury Bonds (1980 - 2008)



**Missouri-American Water Company
WR-2008-0311**

Economic Estimates and Projections, 2008 - 2010

Source	Inflation Rate			Real GDP			Unemployment			3-Mo. T-Bill Rate			Long-Term Treasury Bond Rate		
	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
Value Line Investment Survey -- Selection & Opinion (05-23-08, page 4123)	3.30%	2.40%	2.40%	1.30%	1.50%	3.00%	5.20%	5.70%	5.70%	4.60%	2.30%	3.00%	4.00%	4.20%	5.10%
The Budget and Economic Outlook FY2008-2018	2.90%	2.30%	2.20%	1.70%	2.80%	3.50%	5.10%	5.40%	5.10%	3.20%	4.20%	4.60%	N.A.	N.A.	N.A.
Current rate	4.20%			1.90%			5.70%			1.90%			4.53%		

Notes: N.A. = Not Available.

Sources of Current Rates:

Inflation: The Bureau of Labor Statistics, Consumer Price Index - All Urban Consumers, 12-Month Period Ending, June 30, 2008.

<http://www.bls.gov/cpi/home.htm>

GDP: U.S. Department of Commerce, Bureau of Economic Analysis for the Quarter Ending June 30, 2008 (see first paragraph).

<http://www.bea.gov/newsreleases/national/gdp/gdpnewsrelease.htm>

Unemployment: The Bureau of Labor Statistics, Economy Situation Summary - Unemployment Rate, July 2008.

<http://www.bls.gov/news.release/empsit.nr0.htm>

3-Month Treasury: St. Louis Federal Reserve website for June 30, 2008

<http://research.stlouisfed.org/fred2/data/DGS3MO.txt>

30-Yr. T-Bond: St. Louis Federal Reserve website for June 30, 2008

<http://research.stlouisfed.org/fred2/data/DGS30.txt>

Other Sources (2008 - 2010): ValueLine Investment Survey Selection & Opinion, May 23, 2008, page 4123.

The Congressional Budget Office, The Budget and Economic Outlook: Fiscal Years 2008-2018, August 2007, Table C-1.

MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311

**Historical Consolidated Capital Structures for
American Water Company**
(Dollars in thousands)

Capital Components	1998	1999	2000	2001	2002
Common Equity	\$1,239,174.0	\$1,634,798.0	\$1,669,677.0	\$1,758,018.0	\$1,801,921.0
Preferred Stock	97,089.0	93,811.0	52,693.0	49,415.0	33,858.0
Long-Term Debt	2,159,332.0 ¹	2,431,452.0 ¹	2,432,560.0 ¹	2,716,106.0 ¹	3,668,589.0 ¹
	<u>\$3,495,595.0</u>	<u>\$4,160,061.0</u>	<u>\$4,154,930.0</u>	<u>\$4,523,539.0</u>	<u>\$5,504,368.0</u>
Capital Components	2003	2004	2005	2006	2007
Common Equity	\$3,009,396.0	\$2,888,896.0	\$2,609,458.0	\$2,613,696.0	\$4,542,046.0
Preferred Stock	1,782,610.0	1,779,875.0 ²	1,779,795.0 ^{2 3}	1,779,088.0 ^{2 3}	\$28,864.0
Long-Term Debt	3,822,885.0 ¹	3,952,172.0 ¹	4,366,629.0 ¹	4,352,691.0 ¹	\$4,771,292.0 ¹
	<u>\$8,614,891.0</u>	<u>\$8,620,943.0</u>	<u>\$8,755,882.0</u>	<u>\$8,745,475.0</u>	<u>\$9,342,202.0</u>

**Historical Consolidated Capital Structures for
Missouri-American Water Company**
(Dollars in thousands)

Capital Components	1998	1999	2000	2001	2002
Common Equity	\$45,687.4	\$47,632.4	\$65,203.0	\$196,249.3	\$210,515.0
Preferred Stock	2,768.0	2,742.0	2,716.0	2,704.0	2,692.0
Long-Term Debt	65,475.9 ¹	65,010.0 ¹	93,495.0 ¹	234,146.4 ¹	290,130.0 ¹
Total	<u>\$113,931.3</u>	<u>\$115,384.4</u>	<u>\$161,414.0</u>	<u>\$433,099.7</u>	<u>\$503,337.0</u>
Capital Components	2003	2004	2005	2006	2007
Common Equity	\$215,245.0	\$214,999.0	\$219,543.0	\$222,961.6	\$298,926.0
Preferred Stock	2,680.0	2,668.0	2,664.0	2,704.0	\$2,620.0
Long-Term Debt	290,005.0 ¹	289,985.0 ¹	284,245.0 ¹	286,901.0 ¹	\$316,037.0 ¹
Total	<u>\$507,930.0</u>	<u>\$507,652.0</u>	<u>\$506,452.0</u>	<u>\$512,566.6</u>	<u>\$617,583.0</u>

Note: 1. Includes current maturities on long-term debt.
2. Includes redeemable preferred stock.
3. Includes current maturities on preferred stock.

Sources: Missouri-American Water Company's response to Staff Data Request No 0149.
Schedule 1 attached to Staff witness David Murray's surrebuttal testimony in Case No. WR-2003-0500.

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Historical Consolidated Capital Structures for
American Water Company
(In Percentages)**

Capital Structure	1998	1999	2000	2001	2002	
Common Equity	35.45%	39.30%	40.19%	38.86%	32.74%	
Preferred Stock	2.78%	2.26%	1.27%	1.09%	0.62%	
Long-Term Debt	61.77% ¹	58.45% ¹	58.55% ¹	60.04% ¹	66.65% ¹	
Total	100.00%	100.00%	100.00%	100.00%	100.00%	
Capital Structure	2003	2004	2005	2006	2007	Average
Common Equity	34.93%	33.51%	29.80%	29.89%	48.62%	35.35%
Preferred Stock	20.69%	20.65% ²	20.33% ^{2 3}	20.34%	0.31%	16.46%
Long-Term Debt	44.38% ¹	45.84% ¹	49.87% ¹	49.77% ¹	51.07% ¹	48.19%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

**Historical Consolidated Capital Structures for
Missouri-American Water Company
(In Percentages)**

Capital Structure	1998	1999	2000	2001	2002	
Common Equity	40.10%	41.28%	40.39%	45.31%	41.82%	
Preferred Stock	2.43%	2.38%	1.68%	0.62%	0.53%	
Long-Term Debt	57.47% ¹	56.34% ¹	57.92% ¹	54.06% ¹	57.64% ¹	
Total	100.00%	100.00%	100.00%	100.00%	100.00%	
Capital Structure	2003	2004	2005	2006	2007	Average
Common Equity	42.38%	42.35%	43.35%	43.50%	48.40%	44.00%
Preferred Stock	0.53%	0.53%	0.53%	0.53%	0.42%	0.51%
Long-Term Debt	57.10% ¹	57.12% ¹	56.12% ¹	55.97% ¹	51.17% ¹	55.50%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Note: 1. Includes current maturities on long-term debt.
2. Includes redeemable preferred stock.
3. Includes current maturities on preferred stock.

Sources: Missouri-American Water Company's response to Staff Data Request 0068.

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Capital Structure as of March 31, 2008
for American Water Company**

Capital Component	Amount in Dollars	Percentage of Capital
Common Stock Equity	\$3,809,423,000 ¹	42.85%
Preferred Stock	28,864,000 ²	0.32%
Long-Term Debt	4,732,503,000 ³	53.24%
Short-Term Debt	318,514,512 ⁴	3.58%
Total Capitalization	\$8,889,304,512	100.00%

Source: 1. MAWC's response to Staff Data Request No. 0149.
2. MAWC's response to Staff Data Request No. 0149.
3. MAWC's response to Staff Data Request No. 0149.
4. MAWC's response to Staff Data Request Nos. 0149 and 0161. The amount of Short-term debt outstanding on a consolidated basis was \$368,137,000. The amount of CWIP outstanding for Missouri-American was \$49,622,488. The amount of CWIP outstanding on a consolidated basis was not available per company Data Request No. 0161.

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Embedded Cost of Long-Term Debt as of March 31, 2008
for American Water Company (Excluding Debt Held at American Water's Subsidiaries Besides MAWC)**

Total Annual Cost:	\$178,439,173	
Total Carrying Value:	\$2,973,109,300	
Embedded Cost = Total Annual Cost/Total Carrying Value		6.00%

Sources: Missouri-American Water Company's response to Staff's Data Information Request No. 0150.

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Embedded Cost of Preferred Stock as of June 30, 2008 for American Water Company
(Excluding Preferred Stock Held at American Water's Subsidiaries Besides MAWC)**

Total Annual Cost: \$238,658

Total Carrying Value: \$2,598,678

Embedded Cost = Total Annual Cost/Total Carrying Value 9.18%

Sources: Missouri-American Water Company's response to Staff's Data Information Request No. 0150.

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

Criteria for Selecting Comparable Water Utility Companies

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Water Utility Companies(Ticker)	Stock Publicly Traded	Information Printed In Value Line	10-Years of Data Available	At Least Investment Grade Credit Rating	Projected Growth Rate Available from Value Line or I/B/E/S	>80% of Revenues from Water Operations	Comparable Company Met All Criteria
American States Water Company (AWR)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Aqua America Inc. (WTR)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Artesian Resources Corporation (ARTNA)	Yes	No					
BIW Ltd. (BIW)	Yes	No					
California Water Service Group (CWT)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Connecticut Water Service, Inc. (CTWS)	Yes	Yes	Yes	Yes	No		
Middlesex Water Company (MSEX)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pennichuck Corporation (PNNW)	Yes	No					
SJW Corporation (SJW)	Yes	Yes	Yes	N.R.			
Southwest Water Company (SWWC)	Yes	Yes	Yes	N.R.			
York Water Company (YORW)	Yes	Yes	No				

Sources: Columns 1 and 2 = Edward Jones Water Utility Industry Summary Quarterly Financial and Common Stock Information for March 31, 2008.
Columns 3, 4 and 6 = The Value Line Investment Survey: Ratings & Reports, July 25, 2008.
Column 5 = Standard & Poor's RatingsDirect.
Column 6 = April 2007 Earnings Guide and I/B/E/S Inc.'s Institutional Brokers Estimate System, July 17, 2008.

Notes: N.R.=Not Rated by Standard and Poor's

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

Four Comparable Water Utility Companies

	Ticker Symbol	Company Name
1	AWR	American States Water Company
2	WTR	Aqua America Inc.
3	CWT	California Water Service Group
4	MSEX	Middlesex Water Company

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Ten-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates
for the Four Comparable Water Utility Companies**

	----- 10-Year Annual Compound Growth Rates -----				
<u>Company Name</u>	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>	<u>Average of 10 Year Annual Compound Growth Rates</u>	
American States Water Company	1.00%	3.00%	4.50%	2.83%	
Aqua America Inc.	7.00%	8.50%	10.00%	8.50%	
California Water Service Group	1.00%	-0.50%	3.50%	1.33%	
Middlesex Water Company	2.08%	2.12%	4.93%	3.05%	
Average	<u>2.77%</u>	<u>3.28%</u>	<u>5.73%</u>	<u>3.93%</u>	
Standard Deviation	2.48%	3.28%	2.52%	2.72%	

Source: The Value Line Investment Survey: Ratings & Reports, July 25, 2008.

MISSOURI-AMERICAN WATER COMPANY
WR-2008-0311

**Five-Year Dividends Per Share, Earnings Per Share & Book Value Per Share Growth Rates
for the Four Comparable Water Utility Companies**

	----- 5-Year Annual Compound Growth Rates -----				Average of 5 Year Annual Compound Growth Rates
<u>Company Name</u>	<u>DPS</u>	<u>EPS</u>	<u>BVPS</u>		<u>Growth Rates</u>
American States Water Company	1.50%	1.50%	4.50%		2.50%
Aqua America Inc.	7.50%	7.00%	10.50%		8.33%
California Water Service Group	0.50%	4.50%	6.00%		3.67%
Middlesex Water Company	2.00%	5.00%	6.00%		4.33%
Average	<u>2.88%</u>	<u>4.50%</u>	<u>6.75%</u>		<u>4.71%</u>
Standard Deviation	2.72%	1.97%	2.25%		2.19%

Source: The Value Line Investment Survey: Ratings & Reports, July 25, 2008.

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Average of Ten- and Five-Year Dividends Per Share, Earnings Per Share &
Book Value Per Share of Growth Rates for the Four Comparable Water Utility Companies**

Company Name	10-Year Average DPS, EPS & BVPS	5-Year Average DPS, EPS & BVPS	Average of 5-Year & 10-Year Averages
American States Water Company	2.83%	2.50%	2.67%
Aqua America Inc.	8.50%	8.33%	8.42%
California Water Service Group	1.33%	3.67%	2.50%
Middlesex Water Company	3.05%	4.33%	3.69%
Average	<u>3.93%</u>	<u>4.71%</u>	<u>4.32%</u>

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Historical and Projected Growth Rates
for the Four Comparable Water Utility Companies**

	(1)	(2)	(3)	(4)	(5)
Company Name	Historical Growth Rate (DPS, EPS and BVPS)	Projected 5-Year EPS Growth IBES (Mean)	Projected 3-5 Year EPS Growth Value Line	Average Projected Growth	Average of Historical & Projected Growth
American States Water Company	2.67%	7.63%	10.00%	8.82%	5.74%
Aqua America Inc.	8.42%	8.95%	9.00%	8.98%	8.70%
California Water Service Group	2.50%	8.60%	8.50%	8.55%	5.53%
Middlesex Water Company	3.69%	8.00%	N.A.	8.00%	5.85%
Average	<u>4.32%</u>	<u>8.30%</u>	<u>9.17%</u>	<u>8.59%</u>	<u>6.45%</u>

Proposed Range of Growth for Comparables: 5.95% - 6.95%

Sources: Column 1 = Average of 10-Year and 5-Year Annual Compound Growth Rates from Schedule 13-3.

Column 2 = I/B/E/S Inc.'s Institutional Brokers Estimate System, July 17, 2008.

Column 4 = The Value Line Investment Survey: Ratings and Reports, July 25, 2008.

Column 5 = [(Column 2 + Column 3 + Column 4) / 3]

Column 6 = [(Column 1 + Column 5) / 2]

Note: N.A. = Not Available. *Value Line* does not provide projections for Middlesex Water Company.

The projected 5-Year EPS Growth Rate from IBES is based on the average for 1 month as of July 2008. IBES no longer publishes 5-Year growth rates for Middlesex Water Company.

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Average High / Low Stock Price for March 2008 through June 2008
for the Four Comparable Water Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	-- March 2008 --		-- April 2008 --		-- May 2008 --		-- June 2008 --		Average High/Low Stock Price (3/08 - 6/08)
Company Name	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	High Stock Price	Low Stock Price	
American States Water Company	\$37.940	\$31.980	\$38.770	\$34.650	\$36.070	\$33.160	\$36.600	\$33.090	\$35.283
Aqua America Inc.	\$19.360	\$18.110	\$19.780	\$17.750	\$19.480	\$16.530	\$18.180	\$15.760	\$18.119
California Water Service Group	\$40.980	\$36.510	\$41.230	\$37.950	\$38.700	\$35.070	\$37.250	\$31.480	\$37.396
Middlesex Water Company	\$18.730	\$17.510	\$18.550	\$18.070	\$19.230	\$18.180	\$18.960	\$16.590	\$18.228

Notes:

Column 9 = [(Column 1 + Column 2 + Column 3 + Column 4 + Column 5 + Column 6 + Column 7 + Column 8) / 8].

Source: Standard and Poor's Stock Guide for April, May, June, and July 2008.

MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311

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

	(1)	(2)	(3)	(4)	(5)
Company Name	Expected Dividend	Average High/Low Stock Price	Projected Dividend Yield	Average of Historical & Projected Growth	Estimated Cost of Common Equity
American States Water Company	\$1.04	\$35.283	2.95%	5.74%	8.69%
Aqua America Inc.	\$0.53	\$18.119	2.93%	8.70%	11.62%
California Water Service Group	\$1.18	\$37.396	3.14%	5.53%	8.67%
Middlesex Water Company	\$0.74 *	\$18.228	4.06%	5.85%	9.90%
Average			<u>3.27%</u>	<u>6.45%</u>	<u>9.72%</u>

Proposed Dividend Yield: 3.27%

Proposed Range of Growth: 5.95%-6.95%

Estimated Proxy Cost of Common Equity 9.22%-10.22%

Notes: Column 1 = Average of 2008 and 2009 Estimated Dividends Declared per share 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 25, 2008.

Column 2 = Schedule 15.

Column 4 = Schedule 14.

Note *Middlesex was calculated by taking the 2007 dividend of \$0.69 times the average historical 5-year and 10-year dividend growth rate. The result was \$.72 for 2008. The 2009 expected dividend was calculated by taking the 2008 expected dividend of \$.72 times the average historical 5-year and 10-year dividend growth rate. The result of the expected 2009 dividend is \$.75. The expected 2008 and 2009 dividend was then averaged to be \$.735 or rounded to \$.74.

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Capital Asset Pricing Model (CAPM) Costs of Common Equity Estimates
Based on Historical Return Differences Between Common Stocks and Long-Term U.S. Treasuries
for the Four Comparable Water Utility Companies**

	(1)	(2)	(3)	(4)	(5)	(6)
			Arithmetic Average Market Risk Premium (1926-2007)	Geometric Average Market Risk Premium (1926-2007)	Arithmetic CAPM Cost of Common Equity (1926-2007)	Geometric CAPM Cost of Common Equity (1926-2007)
Company Name	Risk Free Rate	Company's Value Line Beta				
American States Water Company	4.69%	1.05	6.50%	4.90%	11.52%	9.84%
Aqua America Inc.	4.69%	0.95	6.50%	4.90%	10.87%	9.35%
California Water Service Group	4.69%	1.15	6.50%	4.90%	12.17%	10.33%
Middlesex Water Company	4.69%	0.90	6.50%	4.90%	10.54%	9.10%
Average		1.01			11.27%	9.65%

Sources:

Column 1 = The appropriate yield is equal to the average 30-year U.S. Treasury Bond yield for June 2008 which was obtained from the St. Louis Federal Reserve website at <http://research.stlouisfed.org/fred2/series/GS30/22>.

Column 2 = Beta is a measure of the movement and relative risk of an individual stock to the market as a whole as reported by the Value Line Investment Survey: Ratings & Reports, July 25, 2008.

Column 3 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2007 was determined to be 6.50% based on an arithmetic average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2008 Yearbook.

Column 4 = The Market Risk Premium represents the expected return from holding the entire market portfolio less the expected return from holding a risk free investment. The appropriate Market Risk Premium for the period 1926 - 2007 was determined to be 4.90% based on a geometric average as calculated in Ibbotson Associates, Inc.'s Stocks, Bonds, Bills, and Inflation: 2008 Yearbook.

Column 5 = (Column 1 + (Column 2 * Column 3)).

Column 6 = (Column 1 + (Column 2 * Column 4)).

MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311

Selected Financial Ratios for the Four Comparable Water Utility Companies

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Company Name	2007 Common Equity Ratio	2007 Long-Term Debt Ratio	Funds From Operations Interest Coverage	Funds From Operations to Total Debt	Market- to-Book Value	2007 Return on Common Equity	2008 Projected Return on Common Equity	Bond Rating
American States Water Company	53.10%	46.90%	3.00 x	14.0%	2.05 x	9.50%	11.00%	A
Aqua America Inc.	44.60%	55.40%	3.00 x	15.0%	2.32 x	9.70%	11.00%	A+
California Water Service Group	56.60%	42.90%	3.50 x	18.0%	1.97 x	8.10%	8.50%	A+
Middlesex Water Company	50.00%	50.00%	3.50 x	13.0%	1.87 x	8.60%	N.A.	A-
Average	51.08%	48.80%	3.25 x	15.0%	2.05 x	8.98%	10.17%	A

Sources:

The Value Line Investment Survey Ratings & Reports, July 25, 2008: for columns (1), (2), (6) and (7).

Standard & Poor's article, "U.S. Investor-Owned Water Companies Stay Out of Hot Water", July 9, 2008 for columns (3), (4), and (8).

AUS Utility Reports, July 2008 for column (5).

Note: 2008 projected return on common equity is not available for Middlesex Water Company.

Public Utility Revenue Requirement
or
Cost of Service

The formula for the revenue requirement of a public utility may be stated as follows :

Equation 1 : **Revenue Requirement = Cost of Service**

or

Equation 2 : **$R R = O + (V - D) R$**

The symbols in the second equation are represented by the following factors :

$R R$	=	Revenue Requirement
O	=	Prudent Operating Costs, including Depreciation and Taxes
V	=	Gross Valuation of the Property Serving the Public
D	=	Accumulated Depreciation
$(V - D)$	=	Rate Base (Net Valuation)
$(V - D) R$	=	Return Amount (\$\$) or Earnings Allowed on Rate Base
R	=	$i L + d P + k E$ or Overall Rate of Return (%)
i	=	Embedded Cost of Debt
L	=	Proportion of Debt in the Capital Structure
d	=	Embedded Cost of Preferred Stock
P	=	Proportion of Preferred Stock in the Capital Structure
k	=	Required Return on Common Equity (ROE)
E	=	Proportion of Common Equity in the Capital Structure

**MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311**

**Weighted Cost of Capital as of March 31, 2008
for Missouri-American Water Company**

Capital Component	Percentage of Capital	Embedded Cost	Weighted Cost of Capital Using Common Equity Return of:		
			9.60%	10.10%	10.60%
Common Stock Equity	42.85%	-----	4.11%	4.33%	4.54%
Preferred Stock	0.32%	9.18%	0.03%	0.03%	0.03%
Long-Term Debt	53.24%	6.00%	3.20%	3.20%	3.20%
Short-Term Debt	3.58%	5.03%	0.18%	0.18%	0.18%
	<u>100.00%</u>		<u>7.52%</u>	<u>7.73%</u>	<u>7.95%</u>

Notes:

See Schedule 8 for the Capital Structure Ratios.

See Schedule 9 for the Embedded Cost of Long-Term Debt.

See Schedule 10 for the Embedded Cost of Preferred Stock.

Embedded Cost of Short-Term Debt was provided by MOAWC in Data Request No. 0151.

Missouri-American Water Company
Case No. WR-2008-0311
Staff's Corporate Allocation Factors

Total Customers Allocation Factor

(Source: Company's Test Year Numbers)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
Monthly	448	10,761	24,006	4,931	5,622	29,570	32,472	196,126	417	7,120	589	103	396	312,561
Qtrly								144,494						144,494
Total	448	10,761	24,006	4,931	5,622	29,570	32,472	340,620	417	7,120	589	103	396	457,055
Factor	0.098%	2.354%	5.252%	1.079%	1.230%	6.470%	7.105%	74.525%	0.091%	1.558%	0.129%	0.023%	0.087%	100.000%

Staff applied the Total Customer Allocation Factor to the following Corporate Accounts:

Account 469 - Other Revenues
Account 601 - Labor and Expense Operation - Labor & Miscellaneous
Account 602 - Purchased Water

Total Number of Bills Factor

(Source: Customer Annual Billing based upon Company's Test Year Number of Customers)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	5,376	129,132	288,072	59,172	67,464	354,840	389,664	2,931,488	5,004	85,440	7,068	1,236	4,752	4,328,708
Factor	0.124%	2.983%	6.655%	1.367%	1.559%	8.197%	9.002%	67.722%	0.116%	1.974%	0.163%	0.029%	0.110%	100.000%

Staff applied the Total Number of Bills Allocation Factor to the following Corporate Accounts:

Account 903 - Customer Records and Collection Expense - Labor
Account 904 Uncollectible Accounts

Missouri-American Water Company
Case No. WR-2008-0311
Staff's Corporate Allocation Factors

Corporate Customer Accounting Composite

(Source: Test Year Numbers)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	6,049	155,710	157,211	59,071	51,560	306,177	326,837	1,961,141	1,179	51,161	760	0	154	3,077,010
Factor	0.197%	5.060%	5.109%	1.920%	1.676%	9.950%	10.622%	63.735%	0.038%	1.663%	0.025%	0.000%	0.005%	100.000%

Staff applied the Corporate Customer Accounting Composite Allocation Factor to the following Corporate Accounts:

Account 905 Miscellaneous Customer Accounts - Labor and Accounting

Length of Mains (feet)

(Source: 2007 PSC Annual Report, Page W-15)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	65,058	777,248	2,214,655	445,504	428,005	2,317,833	3,240,597	19,884,416	58,577	549,541				29,981,434
Factor	0.217%	2.592%	7.387%	1.486%	1.428%	7.731%	10.809%	66.322%	0.195%	1.833%	0.000%	0.000%	0.000%	100.000%

Staff applied the Length of Mains Allocation Factor to the following Corporate Accounts:

Account 660 - Supervision and Engineering Operations
Account 662 - Transmission and Distribution Line Expense
Account 665.1 - Miscellaneous Expense - Labor and Miscellaneous
Account 673 - Transmission and Distribution Main - Labor and Maintenance
Account 676 - Meters
Account 678 - Miscellaneous Plant Maintenance - Labor and Maintenance
Materials and Supplies

Missouri-American Water Company
Case No. WR-2008-0311
Staff's Corporate Allocation Factors

Labor Composite

(Source: Staff's Payroll Annualization as of March 31, 2008)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
Total \$	101,868	\$ 791,323	\$ 1,472,254	\$ 306,263	\$ 252,321	\$ 868,486	\$ 1,672,295	\$ 16,985,637	\$ 35,826	\$ 284,248	\$ 96,555	\$ 3,303	\$ 31,550	\$ 22,901,929
Corp A&G \$	1,027	\$ 24,134	\$ 53,916	\$ 11,091	\$ 12,632	\$ 66,445	\$ 72,916	\$ 765,407	\$ 924	\$ 16,021	\$ 1,335	\$ 205	\$ 924	\$ 1,026,977
	\$ 100,841	\$ 767,189	\$ 1,418,338	\$ 295,172	\$ 239,689	\$ 802,041	\$ 1,599,379	\$ 16,220,230	\$ 34,902	\$ 268,227	\$ 95,220	\$ 3,098	\$ 30,626	\$ 21,874,952
Factor	0.461%	3.507%	6.484%	1.349%	1.096%	3.666%	7.311%	74.150%	0.160%	1.226%	0.435%	0.014%	0.140%	100.000%

Staff applied the Labor Composite Allocation Factor to the following Corporate Accounts:

Account 920 - Administrative and General Salaries
Account 921.1, Account 921.2 and Account 921.3 -General Office Expense
Account 923.1, Account 923.2, Account 923.3 and Account 923.4 - Outside Services
Account 924.1 and 924.2 - Insurance
Account 925 - Injuries and Damages
Account 926.1 - Group Insurance
Account 926.2 and Account 926.3- Employee Pension & Benefits
Account 927 - Franchise Requirement
Account 928.1 and Account 928.2 - Regulatory Expense
Account 930.1, Account 930.2 and Account 930.3 - Miscellaneous General Expense
Account 931 - Rent
Account 932 - Maintenance of General Plant
Prepayments
Plant and Depreciation Reserve

Water Revenue

(Source: Staff's Annualized Revenues)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
\$	198,756	\$ 4,113,898	\$ 8,845,314	\$ 2,706,307	\$ 3,202,090	\$ 9,652,075	\$ 17,988,939	\$ 130,133,367	\$ 123,851	\$ 2,563,969	\$ -	\$ -	\$ -	\$ 179,528,566
Factor	0.111%	2.292%	4.927%	1.507%	1.784%	5.376%	10.020%	72.486%	0.069%	1.428%	0.000%	0.000%	0.000%	100.000%

Staff applied the Water Revenue Allocation Factor to the following Corporate Accounts:

Account 408 - PSC Assessment - Water

Missouri-American Water Company
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Staff's Corporate Allocation Factors

Sewer Revenue

(Source: Staff's Annualized Revenues)

<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 208,051	\$ 49,857	\$ 88,933	\$ 346,841
0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	59.985%	14.375%	25.641%	100.000%

Staff applied the Sewer Revenue Allocation Factor to the following Corporate Accounts:

Account 408 - PSC Assessment - Sewer

Net Plant

(Source: Staff's March 31, 2008 Net Plant)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	\$ 2,084,403	\$ 18,815,682	\$ 67,507,028	\$ 16,056,909	\$ 24,450,684	\$ 63,002,705	\$ 96,371,274	\$ 610,936,343	\$ 1,406,704	\$ 18,410,495	\$ 2,601,764	\$ 49,282	\$ 3,215,568	\$ 924,908,841
Factor	0.225%	2.034%	7.299%	1.736%	2.644%	6.812%	10.420%	66.054%	0.152%	1.991%	0.281%	0.005%	0.348%	100.000%

Staff applied the Net Plant Allocation Factor to the following Corporate Accounts:

Account 408 - Property Taxes

Net Normalized Timing Difference

(Source: Staff's EMS Schedules in Case WR-2007-0216)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	\$ (36,096.00)	\$ 58,265.00	\$ 84,968.00	\$ 31,554.00	\$ 75,485.00	\$ (64,856.00)	\$ 830,588.00	\$ 4,124,634.00	\$ (8,310.00)	\$ 50,727.00	\$ (18,530.00)	\$ 407.00	\$ (37,950.00)	\$ 5,090,886.00
Factor	-0.709%	1.144%	1.669%	0.620%	1.483%	-1.274%	16.315%	81.020%	-0.163%	0.996%	-0.364%	0.008%	-0.745%	100.000%

Staff applied the Net Normalized Timing Difference Factor to the following Corporate Accounts:

Deferred Income Tax Expense

Missouri-American Water Company
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Net Book to Net Tax Basis Plant Difference

(Source: Staff's EMS Schedules in Case WR-2007-0216)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	\$ 146,657	\$ 1,490,832	\$ 3,092,515	\$ 1,205,848	\$ 875,252	\$ 1,321,452	\$ 3,891,193	\$ 18,693,834	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,717,583
Factor	0.477%	4.853%	10.068%	3.926%	2.849%	4.302%	12.668%	60.857%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%

Staff applied the Net Book to Net Tax Basis Difference Factor to the following Corporate Accounts:

Deferred Income Tax Balances

Labor Excluding STL, Warren County, Cedar Hill & JC - TYE as Updated:

(Source: Staff's Payroll Annualization as of March 31, 2008)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	\$ 100,841	\$ -	\$ 1,418,338	\$ 295,172	\$ 239,689	\$ 802,041	\$ 1,599,379	\$ -	\$ -	\$ 268,227	\$ -	\$ 3,098	\$ -	\$ 4,726,785
Factor	2.133%	0.000%	30.006%	6.245%	5.071%	16.968%	33.837%	0.000%	0.000%	5.675%	0.000%	0.066%	0.000%	100.000%

Staff applied the Labor Excluding STL, WCW, CDH & JC Factor to the following Corporate Accounts:

OPEB Asset and Amortization

ITC Amortization - (Bases: Direct assigned ITC balances)

(Source: ITC Balances filed in Case No. WR-2007-0216)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	\$ -	\$ -	\$ 15,097	\$ -	\$ -	\$ -	\$ 36,742	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,839
Factor	0.000%	0.000%	29.123%	0.000%	0.000%	0.000%	70.877%	0.000%	0.000%	0.000%	0.000%	0.000%	0.000%	100.000%

Staff applied the ITC Amortization Factor to the following Corporate Accounts:

Corporate ITC Amortization

Missouri-American Water Company
Case No. WR-2008-0311
Staff's Corporate Allocation Factors

Water Test Analyses Performed

(Source: Test Year Number of Samples performed by the Belleville Lab by district)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	169	199	370	215	301	0	179	862	81	260				2,636
Factor	6.411%	7.549%	14.036%	8.156%	11.419%	0.000%	6.791%	32.701%	3.073%	9.863%	0.000%	0.000%	0.000%	100.000%

Staff applied the Water Test Analyses Performed Factor to the following Corporate Accounts:

Belleville Lab Indirect Costs/Expenses

Annualized Chemical Expense

(Source: Staff's Annualized Chemical Expense)

	<u>BRU</u>	<u>JFC</u>	<u>JOP</u>	<u>MEX</u>	<u>PKW</u>	<u>SCH</u>	<u>SJO</u>	<u>STL</u>	<u>WCW</u>	<u>WAR</u>	<u>CDH</u>	<u>PKS</u>	<u>WCS</u>	<u>Total</u>
	\$ 6,979	\$ 244,352	\$ 270,446	\$ 60,221	\$ 127,414	\$ -	\$ 810,273	\$ 6,622,789	\$ 2,080	\$ 30,774	\$ -	\$ -	\$ -	\$ 8,175,328
Factor	0.085%	2.989%	3.308%	0.737%	1.559%	0.000%	9.911%	81.009%	0.025%	0.376%	0.000%	0.000%	0.000%	100.000%

Staff applied the Annualized Chemical Expense Performed Factor to the following Corporate Accounts:

Account 640 - Supervision & Engineering Operations
Account 642 - Operation Labor & Expense
Account 643.3 - Miscellaneous Operation Expense
Account 650 - Supervision & Engineering Maintenance
Account 652 - Water Treatment Equipment Maintenance & Labor

MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2008-0311

Usage Per Customer

Residential

(1,000 Gallons)

	Joplin	St. Charles	St. Joseph	St. Louis	Brunswick	Mexico	Parkville	Warrensburg	Jefferson City
per day	0.193	0.272	0.172	0.269	0.123	0.150	0.285	0.172	0.161
per month	5.880	8.289	5.230	8.178	3.754	4.561	8.680	5.230	4.913
per year	70.554	99.470	62.762	98.131	45.048	54.727	104.157	62.762	58.951

Commercial

(1,000 Gallons)

	Joplin	St. Charles	St. Joseph	St. Louis- Quarterly	St. Louis- Monthly	Brunswick	Mexico	Parkville	Warrensburg	Jefferson City
per day	0.945	1.277	0.841	1.115	15.022	0.202	0.620	0.979	0.783	0.811
per month	28.774	38.864	25.608	33.933	457.237	6.148	18.876	29.798	23.817	24.697
per year	345.283	466.363	307.297	407.193	5486.846	73.781	226.516	357.580	285.808	296.364