MISSOURI PUBLIC SERVICE COMMISSION

STAFF REPORT

COST OF SERVICE

FILED
MAR 9 2012
Missouri Public
Service Commission

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2011-0337

Staff Exhibit No. 3
Date 2-21-12 Reporter JL
File No WR-2011-0337

Jefferson City, Missouri
November 17, 2011

COST OF SERVICE REPORT

Table of Contents

COST OF SERVICE REPORT

I. Executive Summary

Staff of the Missouri Public Service Commission (Staff) has conducted a review in Case No. WR-2011-0337 of all cost of service components (capital structure and rate of return, rate base, depreciation expense, and operating expenses) which comprise Missouri-American Water Company's (MAWC or Company) Missouri jurisdictional revenue requirement. This audit was in response to MAWC's application to increase its gross annual water revenues in the amount of $42,233,952 and its gross annual sewer revenues in the amount of $654,760, filed with the Missouri Public Service Commission (Commission) on June 30, 2011.

Staff's recommended increase in revenue requirement is based upon a test year of the twelve months ending December 31, 2010. In some instances, major elements of the revenue requirement calculation for MAWC were measured in Staff's case past December 31, 2010. Staff's recommended revenue requirement for MAWC at the midpoint of its return on equity (ROE) range of 9.90 percent is approximately $23.5 million; this includes an estimated true-up allowance amount of $11.5 million.

The impact of 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 December 12, 2011. The rate design testimony will also go into greater detail concerning Staff's hybrid district consolidation recommendation discussed in some detail in Section X of this Report.

Staff Expert: Kimberly K. Bolin

II. Background of Missouri-American Water Company

MAWC is a Missouri corporation providing water service in and around the cities of Branson, Brunswick, Jefferson City, Joplin, Mexico, Parkville, Sedalia, St. Charles, St. Louis, St. Joseph, Warrensburg and in Warren County, Missouri. MAWC also provides sewer service in and around the cities of Branson, Cedar Hill, Laurie, Parkville, Sedalia, Warsaw, and in Warren County, Missouri. MAWC provides water service to approximately 464,302 customers and sewer service to approximately 1,302 customers. Since the

Company's last rate case, Case No. WR-2010-0131, the Company has acquired three water systems and two sewer systems. In November 2010, the Company acquired Loma Linda Water Company (Loma Linda) near Joplin, Missouri. In April 2011, the Company acquired the Aqua Missouri, Inc., Aqua Development, Inc. and Aqua/RU, Inc. d/b/a Aqua Missouri, Inc. (Aqua Missouri) assets serving various areas throughout Missouri, except the Taos system which was sold to the municipality of Taos, Missouri. In August 2011, MAWC purchased Roark Water and Sewer (Roark) near Branson, Missouri.

MAWC is a wholly owned subsidiary of American Water Works Company, Inc. (American Water or AWW), 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 33 states and Manitoba and Ontario, Canada.

MAWC last sought to change its water and sewer rates in Case No. WR-2010-0131. In its order dated June 16, 2010 in that proceeding, the Commission granted MAWC a total increase in rates of $28 million.

On December 22, 2010, MAWC filed an application to adjust its water infrastructure system replacement surcharge (ISRS). The Commission issued an order on March 9, 2011 approving the new ISRS in the amount of $3,624,121. The Company also filed for a subsequent ISRS on June 22, 2011. The Commission issued an order on September 28, 2011, increasing the ISRS by $2,180,819. As a result of this current rate case, the ISRS will be reset to zero. The net change in rates for MAWC, as recommended in Staff's direct filing in this proceeding is the difference between Staff's revenue requirement recommendation at the midpoint return on equity and the ISRS amount already reflected in rates ($5,804,940).

Staff Expert: Kimberly K. Bolin

III. True-Up Recommendation

The purpose of a true-up 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. When ordered, true-ups involve the filing of additional sets of testimony and the scheduling of additional evidentiary hearings ordered by the Commission.

MAWC filed its case based upon a December 31, 2010 test year. The Commission ordered a test year based upon twelve months ending December 31, 2010 with a true-up through December 31, 2011. The Commission ordered the true-up be limited to the following items:

RATE BASE:

Plant in Service

Accumulated Depreciation Reserve

Accumulated Deferred Income Taxes

Customer Advances

Contributions in Aid of Construction

Materials and Supplies

Prepayments

Tank Painting Tracker Balance

Pension Tracker Balance

OPEB Tracker Balance

Other Deferred Regulatory Assets and Liabilities

Related Cash Working Capital Impact

CAPITAL STUCTURE:

Capital Structure

Cost of Debt

Cost of Preferred Stock

INCOME STATEMENT:

Customer Growth

Payroll – Employee levels, wage rate and related benefits

Rate Case Expense

Bad Debt Expense

Depreciation and Amortization Expense

Pension and OPEB Expense

Injuries and Damages

Property Taxes

PSC Assessment

Related Income Tax Impact

Tank Painting Expense

Support Services Expense (labor only)

Platte County Waste Treatment Contract

Fuel and Power Expenses

Chemical Expense (will reflect true-up volumes of water sold, pricing will remain the same)

Purchased Water (will reflect true-up volumes or water sold, pricing will remain the same)

Staff Expert: Kimberly K. Bolin

IV. Major Issues

The following are the major issues that exist between 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) – ($10.5 million) Staff has recommended a 9.90 percent ROE at the midpoint. MAWC is recommending an 11.3 percent ROE. This issue is addressed in detail in the Section V of this Report.

Plant in Service – ($11.5 million) The Company's direct filing utilizes an estimated balance of plant in service as of December 31, 2011. Staff's direct filing is based upon actual plant in service as of December 31, 2010. Much of this difference will no longer exist after the true-up audit. This issue is addressed in detail in Section VI of this Report.

Service Company Fees – ($4.5 million) Company's direct filing utilizes estimated payroll and payroll related increases for the service company as of December 31, 2011. Staff used test year payroll for the service company and removed all business transformation costs from service company fees. This issue is addressed in detail in Section VII of this Report.

Payroll – ($2.4 million) Staff's annualized payroll is based upon actual employee levels and wages as of December 31, 2010. The Company used a projected employee level through December 31, 2011, which included current vacancies. Much of this difference will no longer exist after the true-up audit. This issue is addressed in detail in Section VIII. C. of this Report.

There are various other issues between 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

V. Rate of Return

A. Summary

Staff recommends that the Commission authorize an overall rate of return (ROR) of 7.58 percent to 8.01 percent for MAWC. Staff's ROR recommendation is based on a recommended return on common equity of 9.40 percent to 10.40 percent (midpoint 9.90 percent) applied to MAWC's parent company, American Water's, December 31, 2010, common equity ratio of 42.95 percent. Staff's recommended ROE is driven by its comparable company analysis using a constant-growth, single-stage Discounted Cash Flow (DCF) analysis. Staff maintains that the DCF methodology is the most reliable method available for estimating a utility company's cost of common equity.

Staff also employed a Capital Asset Pricing Model (CAPM) analysis, using historical earned risk premiums and current U.S. Treasury bond yields as a test of the reasonableness of Staff's DCF estimate. Although Staff's CAPM analysis resulted in lower estimated costs of common equity than those derived using DCF methodologies, Staff did not adjust its ROE recommendation downward due to Staff's concerns about the current reliability of the CAPM using traditional inputs.

To determine an appropriate capital structure to which to apply Staff's recommended ROE, Staff used the actual, consolidated capital structure of American Water as of December 31, 2010, as the basis for Staff's capital structure recommendation for MAWC. Staff's resulting capital structure recommendation consists of 42.95 percent common equity, 0.29 percent preferred stock, and 56.76 percent long-term debt. Schedule 7, attached in Appendix 2 to this Report and incorporated by reference herein, presents MAWC's rate making capital structure and associated capital ratios. Staff's calculation of the embedded cost of long-term debt is 6.19 percent, based on the cost of long-term debt outstanding at American Water Capital Corporation (AWCC) and MAWC as of December 31, 2010. This embedded cost of long-term debt does not include any debt held at American Water's other subsidiaries, a practice which is consistent with the Commission's decision in the Missouri Gas Energy (MGE) rate case, Case No. GR-2004-0209, upheld by the 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). Staff eliminated any debt that MAWC received from AWCC since this debt is already reflected in AWCC's embedded cost of long-term debt and any inclusion of this debt would result in double counting.

Staff has prepared two attachments (denoted Attachments A and B) and twenty-one (21) schedules (numbered 1-21) that support Staff's findings and recommendations in the cost-of-capital area, included in Appendix 2.

B. Legal Principles of Rate of Return

Rate of return witnesses are mindful of the constitutional parameters that guide the determination of a fair and reasonable rate of return. These parameters were announced by the United States Supreme Court in two seminal cases, *Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia* (1923) (*Bluefield*) and *Federal Power Commission v. Hope Natural Gas Company* (1944) (*Hope*).[1] The Court in *Bluefield* 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.[2]

---

[1] ***Bluefield Water Works & Improv. Co. v. Pub. Serv. Comm'n of West Virginia,*** 262 U.s. 679, 43 S.Ct. 675, 67 L.Ed. 1176 (1923); ***Fed. Power Comm'n v. Hope Nat Gas Co.,*** 320 U.S. 591, 64 S.Ct. 281, 88 L.Ed. 333 (1943).

[2] ***Bluefield,*** supra, 262 U.S. at 692-93, 43 S.Ct. at 679, 67 L.Ed. at 1182-1183.

Similarly, the Court in *Hope* stated:

> 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." But such considerations aside, the investor interest has a legitimate concern with the financial integrity of the company whose rates are being regulated. From the investor or company point of view 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.[3]

From these decisions, Staff derives the following principals to be considered in Staff's recommendation of an appropriate rate of return:

1. A return consistent with those realized from investments in comparable companies in terms of risk;
2. A return sufficient to assure confidence in the utility's financial integrity;
3. A return that allows the utility to attract capital; and
4. A return consistent with current opportunity costs of the investment.

C. Economic Information

1. *Monetary Policy*

On December 16, 2008, the Federal Reserve Bank (Fed) cut the Fed Funds Rate to between zero and 0.25 percent, a level well below the historic low of 1.00 percent established under former Fed Chairman Alan Greenspan. This cut was clearly due to the Fed's concern about the state of the U.S. economy. The Fed normally reserves such aggressive actions for times in which it is concerned about the possibility of a deflationary price environment due to a severe contraction in the economy.

Although the current economic and capital market slump worsened during the fall of 2008, the Fed began to react to concerns about the economy in the fall of 2007. Until September 18, 2007, the Fed held the Fed Funds rate steady at 5.25 percent.

[3] ***Hope, supra,*** at 603 (citations omitted).

However, in response to concerns about a tightening credit market (due in part to problems in the sub-prime market at the time) the Fed reduced the Fed Funds rate by a full 50 basis points (0.50 percent) on that date. Over the remainder of 2007, the Fed lowered the Fed Funds rate in two additional 25 basis point (0.25 percent) increments, on October 31, 2007, and December 11, 2007, respectively. The Fed continued to lower the Fed Funds rate through most of the winter and spring of 2008 until reaching the rate of 2.25 percent on April 30, 2008. The Fed appeared to not want to lower the Fed Funds rate any further due to concerns about sparking inflation during a period in which certain commodity prices, such as gasoline, were sky-rocketing. However, shortly thereafter came the financial meltdown in which the Fed and the U.S. Treasury began to play a large role in orchestrating bailouts, mergers, acquisitions, and allowing some financial institutions, such as Lehman Brothers, to go into bankruptcy. The Fed continued to lower the Fed Funds rate by two 50 basis point increments on October 8, 2008, and October 29, 2008, before making its last cut on December 16, 2008, to arrive at the current rate of zero to 0.25 percent. The Fed Funds rate continues to remain at the current rate of zero to 0.25 percent.

The following is a press release dated November 2, 2011, from the Board of Governors of the Federal Reserve System updating the status of the economy and monetary policy:

> Information received since the Federal Open Market Committee met in September indicates that economic growth strengthened somewhat in the third quarter, reflecting in part a reversal of the temporary factors that had weighed on growth earlier in the year. Nonetheless, recent indicators point to continuing weakness in overall labor market conditions, and the unemployment rate remains elevated. Household spending has increased at a somewhat faster pace in recent months. Business investment in equipment and software has continued to expand, but investment in nonresidential structures is still weak, and the housing sector remains depressed. Inflation appears to have moderated since earlier in the year as prices of energy and some commodities have declined from their peaks. Longer-term inflation expectations have remained stable.
>
> Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee continues to expect a moderate pace of economic growth over coming quarters and consequently anticipates that the unemployment rate will decline only gradually toward levels that the Committee judges to be consistent

> with its dual mandate. Moreover, there are significant downside risks to the economic outlook, including strains in global financial markets. The Committee also anticipates that inflation will settle, over coming quarters, at levels at or below those consistent with the Committee's dual mandate as the effects of past energy and other commodity price increases dissipate further. However, the Committee will continue to pay close attention to the evolution of inflation and inflation expectations.
>
> To support a stronger economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate, the Committee decided today to continue its program to extend the average maturity of its holdings of securities as announced in September. The Committee is maintaining its existing policies of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities and of rolling over maturing Treasury securities at auction. The Committee will regularly review the size and composition of its securities holdings and is prepared to adjust those holdings as appropriate.
>
> The Committee also decided to keep the target range for the federal funds rate at 0 to 1/4 percent and currently anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--are likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013.
>
> The Committee will continue to assess the economic outlook in light of incoming information and is prepared to employ its tools to promote a stronger economic recovery in a context of price stability.[4]

Although the Fed tries to influence long-term capital costs through its adjustments to the Fed Funds rate, it does not have the same ability to set long-term rates as it does the Fed Funds rate. Long-term capital costs are market-based rates, which change based on a variety of market factors, with monetary policy being just one factor investors consider. Because long-term capital costs are the primary consideration in estimating a fair and reasonable rate of return, it is important to evaluate the long-term interest rate environment and understand factors that affect long-term rates.

[4] Board of Governors of the Federal Reserve System, http://www.federalreserve.gov/newsevents/press/monetary/20111102a.htm.

2. *Interest Rates, Bond Yields and Spreads*

Long-term interest rates, as measured by thirty-year Treasury bonds (30-year T-bonds), dropped to historically low levels at the end of 2008 and the early part of 2009. As of September 2011, the yield on 30-year T-bonds averaged 3.18 percent (*see* Appendix 2, Schedule 4-2), representing a slight increase from an all-time low in December 2008 of 2.87 percent. However, because of investors' concerns about the economy during the last quarter of 2008, the average utility bond yield increased to as high at 7.80 percent. The spread between the utility bond yields and 30-year T-bond yields hit an historical high of 400 basis points in December 2008 (*see* Appendix 2, Schedule 4-4). As of September 2011, the average utility bond yield had dropped considerably from this high to an average of 5.52 percent. As a result, the spread between the utility bond yields and 30-year T-bond yields decreased to 234 basis points in September 2011, approximately 58.50 percent of the spread reached in December 2008. The current 234 basis point spread is above the average spread of 154 basis points over the period January 1980 through September 2011 (*see* Appendix 2, Schedule 4-4). The decrease in utility bond yields to 5.52 percent represents a decrease of 228 basis points since its peak in November 2008.

3. *Macroeconomic Environment*

Indicators of the macroeconomic environment include estimates of inflation, short and long-term interest rates, and gross domestic product (GDP) projections. *The Value Line Investment Survey: Selection & Opinion,* August 26, 2011, estimates inflation to be 3.10 percent, 1.80 percent, and 2.00 percent for 2011, 2012, and 2013 respectively. In addition, the Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2011-2021,* August 24, 2011, estimates inflation to be 2.20 percent, 1.40 percent, and 1.30 percent for 2011, 2012, and 2013 respectively (*see* Appendix 2, Schedule 5).

The most recent weekly rate for three-month U.S. Treasury bills (a general measure of short-term interest rates) was 0.02 percent (*see* Appendix 2, Schedule 5) and is estimated to be 0.10 percent, 0.10 percent, and 0.20 percent for 2011, 2012, and 2013 respectively.

GDP is a benchmark utilized by the U.S. Commerce Department to measure economic growth within the U.S. borders. Real GDP is measured by the actual GDP, adjusted for inflation. *The Value Line Investment Survey: Selection & Opinion,* August 26, 2011, estimates GPD to be 2.20 percent, 1.30 percent, and 1.50 percent for 2011, 2012, and 2013 respectively. In addition the Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2011-2021,* August 24, 2011, estimates GDP to be 2.40 percent, 2.60 percent, and 1.70 percent for 2011, 2012, and 2013 respectively.

The Value Line Investment Survey: Selection & Opinion, November 11, 2011, stated the following in its Economic and Stock Market Commentary:

> **One by one, the markers pointing to a new recession are falling—at least in this country.** Recent data, for example, affirm that consumer spending, manufacturing orders, and auto sales are pressing higher, while other reports confirm that industrial production and business investment are rallying. Those still calling for a recession, therefore, are getting less and less of an audience. That said, (sic)
>
> **The U.S. upturn could move onto a slower track going forward,** with growth—which rose to 2.5% in the third quarter—perhaps easing to less than 2% this period. Thereafter, there may be some gradual firming in 2012, with growth possibly averaging 2%, or so. Clearly, though, this forecast is tenuous due to uncertainty in Europe, where a recession seems more likely.
>
> **The year ahead holds numerous questions.** First, there is Europe, which is in flux, as prior headlines proclaiming a resolution of the debt crisis now look a bit premature. Then, there are Federal Reserve policies, which are fluid and likely to evolve further, as the central bank seeks a balance between promoting faster growth and containing inflation. Also, there are questions about housing and personal income, both of which are under strain. Finally, there's the likelihood of slower growth in China, which would add to global strains. All of this implies that a stronger showing by our economy in 2012 is unlikely.
>
> **Earnings season is now in the books,** and it has been a respectable one for the most part. However, there were fewer fireworks on the upside than in prior quarters, as profit matchups became more difficult after two years of easy growth. We also think earnings will press forward in the final quarter, but more modestly.
>
> **The bulls got a head start on a year-end rally in October,** which saw the best month for the stock market in a generation. Although such gains now have been partially reversed, the earlier strength still sets the bar high for the rest of 2011. Meanwhile, the lower odds of a new U.S. recession, if confirmed by later data, could get the ball rolling again on Wall Street. That is, if the latest instability in Europe proves to be a passing event.

> **Conclusion:** We are constructive on the market, although we would not rule out further backing and filling, as equity valuations again have crept higher. Please refer to the inside back cover of *Selection & Opinion* for our statistically-based Asset Allocation Model's current reading.

D. Overview of American Water's and MAWC's Business Operations and Credit Quality

1. *Business Operations*

The following excerpt from American Water's 2010 Securities and Exchange Commission (SEC) Form 10-K filing provides an accurate description of American Water's current business operations:

> American Water Works Company, Inc., a Delaware corporation, is the most geographically diversified, as well as the largest publicly-traded, United States water and wastewater utility company, as measured by both operating revenue and population served. Our more than 7,000 employees provide approximately 15 million people with drinking water, wastewater and other water-related services in over 30 states and two Canadian provinces.
>
> In 2010, we generated $2,710.7 million in total operating revenue and $748.1 million in operating income. In 2009, we generated $2,440.7 million in total operating revenue and $173.6 million in operating income, which included a $450.0 million impairment charge. Our 2009 revenue represents approximately four times the operating revenue of the next largest publicly traded company in the United States water and wastewater business.
>
> We have two operating segments that are also the Company's two reportable segments, the Regulated Businesses and the Market-Based Operations (formerly known as the "Non-Regulated Businesses"). For further details on our segments, see Note 22 of the Consolidated Financial Statements.
>
> For 2010, our Regulated Businesses segment generated $2,424.2 million in operating revenue, which accounted for 89.4% of our total consolidated operating revenue. For the same period, our Market-Based Operations segment generated $311.8 million in operating revenue, which accounted for 11.5% of total consolidated operating revenue.

2. *Credit Quality*

Staff understands that MAWC does not receive an individual credit rating as a stand-alone entity. This seems logical considering the fact that MAWC relies on AWCC to issue debt financing for American Water's subsidiaries, which in turn loans these proceeds to the subsidiaries through internal loan agreements.

Therefore, it is important for American Water's access to the debt markets to have its debt rated so potential debt investors can evaluate rating agencies' opinions in determining a fair price to pay for American Water's debt. Staff understands the credit quality of AWCC to be based on American Water's consolidated credit quality. AWCC is a wholly-owned subsidiary of American Water that was created for the special purpose of serving as the primary funding vehicle for American Water and its subsidiaries. Although AWCC and American Water are assigned a Standard and Poor's (S&P) credit rating, because AWCC's purpose is to manage and issue financing for American Water, the credit ratings for each entity are based on American Water's consolidated operations.

S&P currently assigns a long-term corporate credit rating of BBB+ with a "Stable" Outlook for both AWCC and American Water. This rating currently reflects the stand-alone credit quality of American Water. S&P's recent July 26, 2011, Research Report on American Water Works Co., Inc. follows:

> **Rational**
> The ratings on Voorhees, N.J.-based American Water Works Co. Inc. (AWW) and its Voorhees, N.J.-based funding subsidiary American Water Capital Corp. (AWCC) reflect the consolidated credit quality of AWW. A favorable competitive position, a diverse and supportive regulatory environment, and a stable, above-average service territory support AWW's excellent business risk profile. AWW's regulatory framework includes reasonably allowed returns on equity and various cost-recovery mechanisms, including incentives for infrastructure improvements. The company's geographic diversity provides it with some market cash flow and regulatory diversification. We view AWW's operating risks associated with its non-regulated operations as fairly low. AWW's aggressive financial profile, elevated capital-spending requirements for infrastructure replacement, increased costs of compliance with water quality standards, and the company's reliance on acquisitions to provide growth partly offset these strengths. AWW provides regulated water and wastewater services to more than 3.3 million customers in 18 states. The company's regulated utility subsidiaries represent about 89% of total revenues, but have provided

more than 95% of adjusted EBITDA for the past three years. The company's non-regulated subsidiaries engage in water and wastewater facility management and maintenance, as well as design and construction consulting services related to water and wastewater plants. We view these non-regulated segments as having modest incremental risk for AWW due to their lack of cash flow contribution and modest expected capital requirements.

A state commission regulates each of AWW's regulated subsidiaries, which supports revenue and cash flow stability. The average allowed return on equity (ROE) in AWW's seven largest jurisdictions, which account for about 80% of consolidated revenues, is about 10.3%. This is similar to the average allowed ROE in the water sector. In a number of jurisdictions, which represent about 50% of consolidated revenues, the utility recovers replacement capital spending between rate cases up to a stated percentage. The importance of infrastructure surcharge mechanisms has increased, given AWW's capital program of about $1 billion per year. Certain states also allow for surcharges related to the cost of power, chemicals, and purchased water. For the next few years, we expect AWW to file additional rate cases and request additional recovery mechanisms to cover rising operating costs, capital expenditures, and pension and other postretirement obligations. The U.S. Environmental Protection Agency believes that infrastructure replacement needs for water systems are significant over the next 20 years. AWW estimates that it will need to spend over $1 billion annually in each of the next three years for replacement of infrastructure, new facilities to comply with water quality standards, and projects to enhance reliability, quality of service, and efficiency. AWW's reliability of supply is high, as the company owns a substantial number of treatment facilities for surface and groundwater treatment, and the majority of supply comes from surface and groundwater. In 2010, surface water provided 65% of the company's water supply, groundwater 28%, and about 7% was purchased.

Consolidated financial metrics are improving. In 2010, regulatory commissions granted AWW about $75 million of rate increases in New Jersey, Kentucky, and Arizona; the company asks for rate increases to cover rising operating costs, capital expenditures, and pension and other postretirement obligations. For the 12 months ended March 31, 2011, AWW's adjusted funds from operations (FFO) totaled $830 million. FFO to debt was 13%, which is acceptable for the rating. Total debt to capital remained at 60.5% during the same period. The uncertainties associated with the timing of the company's rate cases and the substantially higher capital plans are significant risks that may prevent adequate improvements to the company's financial profile. We expect FFO to benefit from additional rate increases, although a sustained improvement in both consolidated FFO to debt and debt to total capital may not materialize, given the company's financing needs.

In March 2011, AWW announced that it has entered into an agreement to sell to EPCOR Water (USA) its regulated operations in Arizona and New Mexico for an estimated $470 million. We view the transaction as marginally beneficial to AWW's business and risk profile, albeit not material enough to influence the outlook. AWW will use a portion of the sale proceeds to reduce debt (less than 5% of consolidated debt). Arizona and New Mexico are some of the relatively weaker and smaller states that AWW serves, totaling less than 5% of cash flows. Similarly, in July 2011, AWW announced the sale of its regulated operations in Ohio to Aqua America Inc. for $120 million and a purchase of Aqua America's regulated operations in New York for about $70 million. These announcements do not affect AWW's ratings.

Liquidity
The short-term ratings on AWW and AWCC are 'A-2'. We view the company's overall liquidity as adequate. For the upcoming 12 months, we expect liquidity sources to exceed uses by about 1.07x. Cash sources consist of projected FFO of about $870 million and revolver availability of $813 million. However, we discount the borrowing availability on the revolver by $320 million to account for commercial paper and other short-term borrowings. Cash uses consist of high expected capital spending of about $1 billion in 2011, dividend distributions of about $160 million, and pension top-up needs of about $120 million. Other potential cash uses, such as working capital needs and long-term debt maturities, are not significant.

Outlook
The stable outlook on AWW and AWCC reflects our expectation that the company will receive supportive rate increases over the next three years to address rising costs and increased capital spending plans. The current rating can accommodate some acquisitions, assuming management funds the acquisitions in a balanced manner. We could lower the rating if financial performance stalls or deteriorates, which could result from substantial debt-financing of capital expenditures or acquisitions, such that FFO to debt falls below 9% and debt to capital rises above 65%. We could also lower the rating if rate increases or allowed returns are set at levels substantially below the requested figures, and if the company takes significantly longer to resolve rate case filings than we currently expect. We could raise the rating if higher-than-expected rate increases or favorable cost recovery mechanisms allow for a sustained adjusted FFO to total debt ratio of 12% and adjusted leverage between 50% and 55%.

E. Determination of the Cost of Capital

A utility company's actual cost of capital at any point in time depends, in part, on the types of capital supporting the utility company's assets. The usual capital components are: 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 (in the case of debt) or by the estimated cost of common equity component (in the case of common equity). The individual weighted costs are then summed to arrive at a total weighted average cost of capital (WACC). This total WACC is synonymous with the fair rate of return for the utility company.

A company's authorized WACC is considered a just and reasonable rate of return. 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 reasonably balanced and are valued 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.

F. Capital Structure and Embedded Costs

The capital structure Staff used for this case is American Water's capital structure on a consolidated basis as of December 31, 2010. Schedule 7, attached in Appendix 2 to this Report and incorporated by reference herein, presents American Water's capital structure and associated capital ratios. The resulting capital structure consists of 42.95 percent common equity, 56.76 percent long-term debt, and 0.29 percent preferred stock.

The amount of long-term debt outstanding on December 31, 2010, includes current maturities due within one year and has been reduced by the net balance associated with the unamortized premiums, discounts and expenses as reported in MAWC's response to Staff Data Request No. 0141.

The amount of preferred stock outstanding on December 31, 2010, was reduced for the net balance associated with the unamortized issuance expense as reported in MAWC's response to Staff Data Request No. 0141.

Staff did not include short-term debt in its capital structure, as construction work in progress (CWIP) exceeded the amount of short-term debt on American Water's Balance Sheet by $85,865,000. Staff assumes that CWIP, typically financed with short-term debt, will be refinanced into long-term debt in the future.

Staff chose to use American Water's capital structure for MAWC's ratemaking capital structure for several reasons. First, MAWC is not operating as an independent entity, at least when considering MAWC's procurement of financing and the cost of that financing. For example, MAWC has a Financial Services Agreement[5] with AWCC through which AWCC arranges short-term borrowings and performs cash management for MAWC. Under the case management program, operating cash surpluses and deficits of each participating affiliate are lent to or borrowed from AWCC on a *daily* basis, showing heavy integration of MAWC's financial management with American Water's other operations. While MAWC has accessed the capital markets prior to the test year in this case by issuing tax-advantaged bonds through the State Environmental Improvement and Energy Resources Authority, MAWC has represented to Staff in the past that AWCC is the primary source of long-term and short-term debt financing for MAWC and this appears to be the case currently.

Second, as stated on page 65 of American Water's 2010 SEC Form 10-K filing, American Water issued 67 percent of the debt financings during calendar year 2010. The other 33 percent were issued by its subsidiaries. The debt issued by AWCC is rated by credit rating agencies 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, (i.e. the business risk and financial risk associated with American Water's consolidated operations).

Third, American Water is primarily a regulated water distribution utility, meaning that the business risks of American Water are similar to that of MAWC. If the business risks of the parent company are similar to that of the subsidiary, then each entity should be able to incur similar amounts of financial risk. Presumably, this should cause their capital structures to be fairly similar. Because it is the parent company's consolidated operations that drive the cost of debt capital and equity capital, the parent company's capital structure is the capital structure that will be analyzed by investors when determining the required rate of return for debt issued by AWCC and equity issued by American Water.

---

[5] See Financial Service Agreement, attached as Appendix 2 to MAWC's Application filed in Case No. WF-2002-1096.

Finally, American Water employs double leverage, a term used to describe a situation in which the parent company uses financing other than equity financing, usually debt, raised at the parent company level to infuse equity in its subsidiaries. Usually this situation results in the parent company's capital structure being more leveraged than the subsidiaries, but this is currently not the case for MAWC. All the debt issued by AWCC and loaned to MAWC is essentially guaranteed by American Water. In American Water's 2002 Annual Report, the Company indicated that American Water has "fully and unconditionally guaranteed the securities of AWCC." Therefore, although there are internal loan documents between MAWC and AWCC, the ultimate responsibility for the payment of the debt service on the debt through AWCC rests with American Water. This calls into question whether it is appropriate to consider the debt received by MAWC from AWCC as truly MAWC debt. The subsidiary's use of debt financing that is backed by the parent, supports Staff's recommendation to use American Water's consolidated capital structure.

Attached Schedules 6-1 and 6-2 in Appendix 2 show MAWC's and American Water's historical capital structures. Although this information demonstrates American Water's more leveraged capital structure as compared to MAWC through 2006, it should be noted that RWE Aktiengesellschaft (RWE) began preparations to divest its 100 percent equity interest in American Water beginning in 2007 by redeeming preferred stock and debt that American Water had issued to RWE. This explains the reduction of the balance of American Water preferred stock by $1.75 billion in 2007 compared to 2006. RWE began the process of divesting its equity ownership interest in American Water in April 2008 through an initial public offering (IPO) of common stock. As of November 24, 2009, RWE had completely divested all equity ownership interest it had in American Water. Although American Water still issues debt at the parent company level for purposes of investments in its subsidiaries, Staff does not anticipate that American Water will have as much preferred stock in its capital structure as it had while owned by RWE.

It is interesting to note that American Water actually has a less leveraged capital structure than MAWC at this time. This is not consistent with the capitalization of American Water in past MAWC rate cases. In this instance, because Staff still does not consider MAWC as a stand-alone entity from a financial perspective, Staff believes it is appropriate to use American Water's consolidated capital structure along with the costs of debt issued by AWCC, which are based on the consolidated creditworthiness of American Water.

G. Cost of Common Equity

Staff estimated MAWC's cost of common equity by applying cost of equity methodologies to a proxy group. Staff primarily relied on the DCF methodology to estimate the cost of equity, but Staff also tested the reasonableness of its DCF estimate by performing a CAPM analysis.

Staff's DCF estimated cost of common equity was based on the traditional constant-growth DCF analysis (explained in detail in Attachment A in Appendix 2). This model consists of adding an estimated dividend yield (D_1/P_0) with a projected constant growth rate (G) to arrive at an estimated cost of equity.

Staff tested the reasonableness of its DCF analysis using the CAPM (explained in detail in Attachment B in Appendix 2). The CAPM Formula can be expressed by the following equation: $k = R_f + \beta\ (R_m - R_f)$, where the market risk premium ($R_m - R_f$) is adjusted by beta (β) and added to a risk-free rate (R_f) to estimate the cost of equity.

1. *Proxy Group*

Staff started with a list of 10 publicly-traded water utility companies monitored by the financial-services firm Edward Jones. This list was reviewed to ensure that the companies meet the following criteria:

1. Classified as a water utility company by Edward Jones;
2. Stock publicly traded: This criterion did not eliminate any companies;
3. Information printed in Value Line: This criterion did not eliminate any companies;
4. Five years of data available: This criterion eliminated one company;
5. At least investment grade credit rating: This criterion eliminated two additional companies because of lack of rating information;
6. Projected growth rate available from Value Line or Reuters: This criterion did not eliminate any companies;
7. Greater than 75 percent of revenues from water operations: This criterion did not eliminate any companies;

This final group of six publicly-traded water utility companies was used to estimate a proxy group cost of common equity to be applied to MAWC's operations. Staff notes that Middlesex Water Company has been eliminated from the proxy group as there is not a long-term projected growth rate available from Value Line and the long-term growth rate from Reuters is negative 5.00 percent rated by one analyst. Staff did not include this negative projected growth rate, as Staff has not been able to contact the analysts from Reuters who rated Middlesex Water Company to discuss the reason for a negative projected growth rate. The resulting comparable companies are listed on Schedule 11 in Appendix 2.

2. *Constant-growth DCF*

The first step Staff performed in its constant-growth DCF analysis was to estimate a growth rate. In doing this, Staff reviewed actual dividends per share (DPS), earnings per share (EPS), and book values per share (BVPS), as well as projected DPS, EPS, and BVPS growth rates for the comparables. Schedule 12-1 in Appendix 2 lists the annual compound growth rates for DPS, EPS, and BVPS for the past ten years. Schedule 12-2 in Appendix 2 lists the annual compound growth rates for DPS, EPS, and BVPS for the past five years. Schedule 12-3 in Appendix 2 presents the averages of the growth rates shown in 12-1 and 12-2 in Appendix 2. Schedule 14 in Appendix 2 presents the average historical growth rates and the projected growth rates for the comparables. The projected EPS growth rates were obtained from two sources: *Reuters.com* and *The Value Line Investment Survey: Ratings and Report.*

The two projected EPS growth rates were averaged to develop an average projected growth rate of 7.49 percent, which was then averaged with the historical EPS, DPS, and BVPS growth rates to produce an average historical and projected growth rate of 6.07 percent. Staff estimated a range of growth of 5.60 percent to 6.60 percent, which gives consideration to both historical growth rate indications and projected growth rate indications.

Staff's next step in estimating the cost of common equity using the constant-growth DCF was to estimate the dividend yield (D_1/P_0) for the proxy group. The yield term of the DCF model is calculated by dividing the amount of DPS expected to be paid over the next twelve month (D_1) by the market price per share of the firm's stock (P_0). The use of stock prices for the most recent three months (through the end of September 2011) is reasonable, as this period reflects investors' analysis of the current economic conditions over a quarterly period. It should be noted that Staff's use of three months of average stock prices for the comparable group is different from its past practice of using four months of stock prices. Staff decided to make this change because most financial data is reported based on three months of data, i.e., quarterly.

Staff decided to use a technique that averages monthly high/low stock prices over a period of three months to estimate the dividend yield. The monthly high/low averaging technique minimizes the effects on the dividend yield that can occur due to short-term volatility in the stock market. Schedule 16 in Appendix 2 presents the average high/low stock price for each comparable company for the period of July 1, 2011, through September 30, 2011.

Column 1 of Schedule 17 in Appendix 2 indicated the expected dividend for each comparable company over the next 12 months as projected in the most recent Value Line report. Column 3 of Schedule 17 in Appendix 2 shows the projected dividend yield for each of the comparable companies. The dividend yield for each comparable company was averaged to estimate the projected average dividend yield for the comparables of 3.37 percent.

As shown on Schedule 17 in Appendix 2, Staff's estimate of the proxy group's cost of common equity based on the projected dividend yield and a growth rate range of 5.60 to 6.60 percent is 8.97 percent to 9.97 percent, midpoint 9.47 percent. However, considering the fact that American Water is rated BBB+ by S&P and the average S&P credit rating for the comparable companies is A, Staff made an upward adjustment to its cost of common equity for MAWC. Staff increased the lower end and the upper end of the range by 43 basis points to reflect the higher risk implied by this credit rating differential based on the recent spread between A-rated utility bonds and BBB+ -rated utility bonds. Therefore, Staff's recommended return on common equity results in the range of 9.40 percent 10.40 percent, with a mid-point of 9.90 percent.

3. *Capital Asset Pricing Model*

Staff also performed its traditional CAPM cost of common equity analysis on the comparable companies. Staff relied on historical capital market return information through the end of the 2010 calendar year for its analysis.

The CAPM requires estimates of three main inputs: the risk-free rate, the beta, and the market risk premium. For the first variable, the risk-free rate, Staff used an average yield on thirty-year U.S. Treasury Bonds (T-bonds). The average yield for September 2011 was 3.04 percent.

For the second variable, beta, Staff used Value Line's betas for the comparable group of companies. Schedule 18 in Appendix 2 contains the Value Line betas for the comparables. The average beta for the comparable companies was 0.75, implying that the comparable companies are 25 percent less risky than the market as a whole.

The final term of the CAPM is the market risk premium ($R_f - R_m$). The market risk premium represents the expected return from holding the entire market portfolio, less the expected return from holding a risk-free investment. Staff relied on risk premium estimates based on historical differences between earned returns on stocks and earned returns on bonds.

The first risk premium Staff used was based on the long-term, arithmetic average of historical return differences from 1926 to 2010, which was 7.54 percent. The second risk premium used was based on the long-term, geometric average of historical return differences from 1926 to 2010, which was determined to be 6.34 percent. These risk premiums were taken from Ibbotson Associates, Inc.'s *Stocks, Bonds, Bills, and Inflation: 2010 Yearbook.*

Schedule 18 in Appendix 2 presents the CAPM analysis of the comparable companies using historical actual return spreads to estimate the required equity risk premium. The CAPM analysis using the long-term arithmetic average risk premium and the long-term geometric average risk premium produces estimated costs of common equity of 7.54 percent and 6.34 percent respectively.

H. Further Test of Reasonableness

Although Staff recommends that the Commission rely primarily on Staff's cost-of-common-equity recommendation in this case when authorizing a fair rate of return, Staff recognizes that the Commission has expressed a preference in past cases to at least consider the average authorized returns allowed in other states, which in the case of electric and gas utilities is published by the Regulatory Research Associates (RRA). However, RRA does not publish this information for water utilities.

In order to obtain at least some information on authorized returns for water utilities, Staff issued Data Request No. 0148 to MAWC to provide at least an indication of the allowed return for American Water's other water utility subsidiaries. MAWC's response provided information for 2010. Additionally, the 2010 "allowed" ROE information included ROEs that were included as a result of settlement. While Staff does not consider the grouping of truly authorized ROEs from commissions with those reached through settlements to be a fair gauge of authorized ROEs, nevertheless Staff simply averaged all ROEs provided, which resulted in approximately a 10.00 percent average "allowed" ROE for 2010, ten basis points higher than Staff's recommended mid-point of 9.90 percent for MAWC's ROE.

I. Conclusion

Based on Staff's cost of equity analyses, Staff believes a fair cost of common equity estimate in this case is in the range of 9.40 percent to 10.40 percent, with a mid-point of 9.90 percent. Staff may adjust its recommended cost of common equity based on any changes in American Water's capital structure as of the true-up period in this case.

Staff developed a WACC in the range of 7.58 percent to 8.01 percent for MAWC using the cost-of-service ratemaking approach (*see* Schedule 21 in Appendix 2). This rate was calculated by applying an embedded cost of long-term debt of 6.19 percent, a cost of common equity range of 9.40 percent to 10.40 percent, and an embedded cost of preferred stock of 9.21 percent to a capital structure consisting of 42.95 percent common equity, 56.76 percent long-term debt, and 0.29 percent preferred stock. Therefore, from a financial risk/return prospective, Staff recommends MAWC be allowed to earn a return on its rate base in the range of 7.58 percent to 8.01 percent, with a midpoint recommendation of 7.79 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 December 31, 2010

Accounting Schedule 3, Plant in Service, reflects the rate base value of MAWC's plant in service for each district as of December 31, 2010, 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 Staff's labor composite corporate allocation factor (the corporate allocation factors are discussed in Section VII item B and listed in the attached Schedule KDF 1 of Appendix 3).

Staff Expert: Paul R. Harrison

2. Depreciation Reserve as of December 31, 2010

Accounting Schedule 4, Depreciation Reserve, reflects the rate base value of MAWC's depreciation reserve for each district as of December 31, 2010, by account. The plant in service for each district includes allocated corporate plant as discussed in Section VII. The depreciation reserve for each district includes allocated corporate accumulated depreciation. Corporate depreciation reserve was allocated across the districts according to Staff's labor composite corporate allocation factor (the corporate allocation factors are discussed in Section VII item B and listed in the attached Schedule KDF 1 of Appendix 3).

Staff Expert: Paul R. Harrison

B. Cash Working Capital (CWC)

Cash Working Capital (CWC) is the amount of funding necessary for a utility to pay the day-to-day expenses incurred in providing utility services to its customers. When a utility expends funds in order to pay an expense necessary to the provision of service before its customers provide any corresponding payment, the utility's shareholders are the source of the funds. This shareholder funding represents a portion of each shareholder's total investment in the utility. The shareholders are compensated by the inclusion of these funds in rate base. By including these funds in rate base, the shareholders earn a return on the CWC-related funding they have invested.

Customers supply CWC when they pay for services received before the utility pays expenses incurred in providing that service. Utility customers are compensated for the CWC they provide by a reduction to the utility's rate base. By removing these funds from rate base, the utility earns no return on that funding which was supplied by customers as CWC.

A positive CWC requirement indicates that, in the aggregate, the shareholders provided the CWC for the test year. This means that, on average, the utility paid the expenses incurred to provide the services to its customers before those customers had to pay the utility for the provision of these utility services. A negative CWC requirement indicates that, in the aggregate, the utility's customers provided the CWC for the test year. This means that, on average, the customers paid for the utility's services before the utility paid the expenses that the utility incurred to provide those services.

The components of Staff's CWC calculation are as follows:

1) **Account Description**: lists the types of cash expenses that MAWC pays on a day-to-day basis.

2) **Test Year Adj. Expenses**: provides the amount of Staff's annualized expense included in MAWC's cost of service. These expenses are based on the dollars associated with those items on an adjusted jurisdictional basis according to the account description.

3) **Revenue Lag**: indicates the number of days between the midpoint of the provision of service by MAWC and the payment by the ratepayer for such service. Further explanation of revenue lag can be found later in this Report.

4) **Expense Lag**: indicates the number of days between the receipt of, and payment for, the goods and services (i.e., cash expenditures) used to provide service to the ratepayer. Further explanation of expense lag can be found later in this Report.

5) **Net Lag**: results from the subtraction of expense lag from revenue lag.

   i. CWC Factor: expresses CWC lag in days as a fraction of the total days in the test year. This is accomplished by dividing the net lag by 365.

   ii. CWC Requirement: cash working capital requirement needed for each expense listed. The amounts in this area are calculated by multiplying the test year/annualized balances with the CWC factor.

The result of Staff's CWC analysis is reflected on Accounting Schedule 2, for each district in the section titled "Add To Net Plant In Service", except for newly acquired systems. Staff did not perform a CWC calculation for the new systems because the data needed to perform this analysis was not available. Other aspects of Staff's CWC analysis results are included in the Rate Base Schedule in the section titled "Subtract From Net Plant" in the following line items: Federal Tax Offset, State Tax Offset, and Interest Expense Offset.

1. Revenue Lag

The revenue lag is the amount of time between the day the Company provides the utility service, and the day it receives payment from the ratepayers for that service. Staff's overall revenue lag in this case is the sum of three components. They are as follows:

1) Usage Lag: The midpoint of average time elapsed from the beginning of the first day of a service period through the last day of that service period;

2) Billing Lag: The period of time between the last day of the service period and the day the bill for that service period is placed in the mail by the Company; and,

3) Collection Lag: The period of time between the day the bill is placed in the mail by the Company and the day the Company receives payment from the ratepayer for the services provided.

Staff's recommended revenue lag in this case varies by each district of MAWC. The revenue lag calculated for each individual district is reflected in Staff's workpapers previously provided to the parties.

The usage lag for all districts, except St. Louis, was determined by dividing the number of days in a typical year (365) by the number of months in a year (12), to yield the average number of days in a month (30.42). The 30.42 was then divided by two, to yield an average usage lag of 15.21 days. This further calculation using two as the divisor is necessary since the Company bills monthly, and it is assumed that service is delivered to the customer evenly throughout the month.

St. Louis bills some residential and commercial customers quarterly. For those that were billed quarterly, the usage lag was determined by dividing the number of days in a typical year (365) by four, to yield the average number of days in a quarter (91.25). This was then divided by two, to yield an average usage lag of 45.63 days. A weighted average between customers billed quarterly and monthly was then taken to arrive at the total usage lag for St. Louis of 37.72.

The billing lag is the time it takes between when the Company reads the meter and when the bills are subsequently mailed to customers. In this case, MAWC's billing lag across all districts was comparable to past billing lags. Staff accepted MAWC's billing lag day calculation in its filed lead/lag study.

The collection lag is the average number of days that elapse between the day the bill is mailed and the day the Company receives payment for that bill. The collection lag was calculated by using the average daily balance in accounts receivable and dividing it by Staff's calculated average daily revenues. This approach is generally known as an "accounts receivable turnover" calculation. Average daily revenues were determined by taking Staff's annualized revenues divided by 365 days.

The sum of Staff's usage, billing, and collection lags that make up the revenue lag for MAWC varies across all twelve districts, as each currently have different revenue collection and billing patterns.

Staff Expert: Casey Westhues

2. Expense Lags

Staff reviewed MAWC's expense lag calculations for accuracy. The following expense lags calculated by MAWC were determined to be reasonable; therefore, Staff accepts the Company's calculations for these items:

- Group Insurance
- 401K Withheld
- Fuel and Power
- Chemicals
- Insurance Other
- Property Taxes
- Interest

Staff made slight adjustments to the Labor, Tax Withholding, FICA, and Unemployment lags. In MAWC's supporting work papers for the above mentioned lags, it stated that union labor is paid seven days following the end of the payroll period, and non-union labor is paid five days following the end of the payroll period. MAWC had calculated the lag based on five days for both union and non-union. Staff adjusted the union labor payment lag to seven days. This resulted in a minor change to the payroll lags in certain districts.

The Pensions and OPEBs lag was originally calculated using a service period of an entire year. Staff determined from the funding date that these expenses are paid on a quarterly basis; therefore, the service period should also reflect a quarterly basis. Staff also combined the Pension and OPEB lag into one total lag.

Like the Pensions and OPEB lag, the Income Taxes and PSC Assessment lag were determined to have been paid on a quarterly basis. The expense lag for these items was recalculated to reflect a quarterly service period instead of an entire year-long service period.

Staff's Cash Vouchers lag measures the CWC requirement associated with all Company cash expenses that do not have a separate expense lag calculation and line item within Staff's CWC Accounting Schedules. The Company refers to this lag as the "miscellaneous" lag. The miscellaneous lag used by the Company consisted of a sample of expenses related to lab supplies, telephone expense, and other miscellaneous operating expenses, which are considered cash voucher items by Staff. Staff calculated the average Cash Vouchers lag by adding the different miscellaneous lags calculated by the Company and dividing it by twelve. Staff used the Cash Vouchers lag as the applicable expense lag for the Company's management fee, as was done in prior MAWC rate cases. In Case No. WR-2003-0500, Staff disputed American Water's billing of management fees to the districts prior to the costs being incurred and prior to the districts' receipt of any benefits associated with the services. Consequently, in that case the expense lag for the management fees was set equal to the total expense lag utilized for general cash vouchers as an estimate of a reasonable expense lag for this cost.

In conclusion, the results of these district specific studies performed by Staff resulted in varied requirements from district to district. Depending on whether there was a net positive or negative CWC lag calculation for each current district determined whether funds were provided by the shareholder or the customer. If there was a positive net lag, the shareholders provided the funds and are entitled to a rate of return on those funds. If there was a negative net lag, the customers provided the funds and are compensated through a reduction to rate base.

Staff Expert: Casey Westhues

C. Prepayments, and Materials and Supplies

The Company utilized shareholder funds for prepaid items such as insurance premiums. Staff included these prepayments in rate base at the 13-month average level ending December 31, 2010. The Company also holds a variety of materials and supplies in inventory so as to be readily available in performing its utility operations. Staff included the 13-month average value ending December 31, 2010, of MAWC's materials and supplies inventory to all the districts, including the acquired properties in rate base.

Staff Expert: Paul R. Harrison

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

1. Pension/OPEB Tracker

In this case, Staff has identified a flaw in the operation of the Company's current tracker mechanism for the FAS 87 pension expense, and recommends correcting this problem going forward. This flaw relates to a mismatch in how the amount of MAWC's rate recoveries for pension expense is currently determined, and how the amounts of its pension cash trust fund contributions are calculated. To correct this flaw, Staff recommends that the Commission order MAWC to:

- In the current rate case, adjust the amount of the balance of the pension asset/liability as necessary until either the combined rate base allowance equals MAWC's current pension funding cash investment, or the balance of the pension asset/liability is reduced to zero, whichever occurs first.
- On a going forward basis, modify the pension's tracker mechanism so that it is a direct measurement of the Company's ongoing pension funding outlays compared to its rate recovery of pension expense.
- On a going forward basis, combine each of the previous rate case trackers into one and amortize over five years. At the present time MAWC has three separate trackers from previous MAWC rate cases for pensions, and three

separate trackers for OPEBs, not including the current tracker for pension and OPEBs from the current rate case.

A detailed explanation of the flaw with the Company's current tracker mechanism and Staff's recommendation to correct this flaw for the FAS 87 pension expense on a going forward basis is explained below.

Staff, MAWC, and other parties entered into a *Non-unanimous Stipulation and Agreement* in Case No. WR-2007-0216 addressing the ratemaking treatment for annual pension and OPEB costs under Financial Accounting Standards (FAS) 87 (Employer's Accounting for Pension) and 106 (Employer's Accounting for Postretirement Benefits Other than Pensions) respectively. The ratemaking treatment agreed to in Case No. WR-2007-0216 for pensions and OPEBs was continued in agreements reached in MAWC's subsequent rate cases, Case Nos. WR-2008-0311 and WR-2010-0131. As a result of those agreements, MAWC was authorized to use an accounting mechanism that would "track" the difference between the ongoing allocated FAS 87 and FAS 106 expense, as calculated by the Company's actuary, and the allocated FAS 87 and 106 expense included in those cases. In this case, Staff amortized the net balances of both the FAS 87 pension and FAS 106 OPEBs trackers to expense over a five year period, with the unamortized tracker balances included in rate base as regulatory assets or regulatory liabilities, as appropriate.

In the current case, for pension expense, in addition to the FAS 87 tracker amount discussed above, Staff also included in MAWC's rate base a "pension asset/liability" that measured the difference between MAWC's recorded pension expense on its books and MAWC's allocated share of American Water's actual cash contribution to its pension trust funds. This value currently appears in Staff's rate base as a liability, meaning that MAWC has recognized more pension expense on its books than its allocated share of pension contributions to trust funds. This asset/liability was not amortized to expense in previous MAWC rate cases.

Along with the previous unamortized balance for the 2007 rate case trackers, Staff included the 2008 and 2010 OPEB regulatory asset/liability in rate base and amortized it to expense over five years in the current case. For this purpose, Staff calculated the balance of the prior OPEB trackers, as of the true-up date in the case in which each tracker was established.

As part of its review of pension expense in this case, Staff has determined that the operation of the existing pensions FAS 87 tracker should be modified, as the current tracker mechanism does not result in an accurate rate base valuation of MAWC's ongoing pension fund investment. American Water does not fund its pension plan on a FAS 87 basis, and instead uses an alternative minimum Employee Retirement Income Security Act (minimum ERISA) approach to calculate its pension funding amounts, and that amount is in turn allocated to American Water's affiliates, including MAWC. While over the long-term the FAS 87 and minimum ERISA quantifications of pension expense should approximately be equal in any given year or period of years, there often are significant differences between the funding requirements of the two methods at a given point in time.

The problem in the operation of the current FAS 87 tracker mechanism is that it is based upon fluctuations in the Company's ongoing FAS 87 expense compared to the amount of FAS 87 included in MAWC's rate levels. However, if the amounts of MAWC's annual trust fund contributions are not based upon a FAS 87 expense measurement (and, as previously explained, currently they are not), then there is no cash investment required of either MAWC or its ratepayers associated with annual fluctuations in booked FAS 87 pension expense. A financial accounting difference that has no impact on a Company's or its customers' cash investment requirements should not be included in utility rate base. The "pension asset/liability" also included in MAWC's rate base, is a more appropriate surrogate calculation of the Company's or customers' cash requirements arising from the difference between the results of a FAS 87 expense calculation on the Company's books and the amount of its minimum ERISA trust fund contributions. Given American Water's current funding practices, inclusion of both a FAS 87 rate base difference and a pension asset/liability in rate base will most likely result in either an overstatement or an understatement of MAWC's actual pension's rate base investment.

To remedy this situation, Staff recommends that on a going forward basis the Commission modify MAWC's pension tracker mechanism so that it is a direct measurement of the Company's ongoing pension cash investment in its trust fund compared to its rate recovery of pension expense. This requires a direct comparison between the amount of MAWC's rate allowance for pension expense (currently calculated on a FAS 87 basis) and the amount of its allocated cash contribution to the pension trust fund (currently calculated on a minimum ERISA basis).

In this case, Staff's ability to fully correct for the past inaccuracy of including the non-cash FAS 87 tracker in rate base is limited by the *Non-unanimous Stipulation and Agreement* in Case No. WR-2010-0131 requiring recognition of the current FAS 87 tracker amounts in rate base and in expense through an amortization. For that reason, if in this case inclusion of both the FAS 87 tracker difference and the pension asset/liability differences in rate base lead to either an overstatement or understatement of MAWC's current cash investment regarding pension contributions, then Staff recommends adjusting the amount of the balance of the pension asset/liability as necessary until either the combined rate base allowance equals MAWC's current cash requirement, or the balance of the pension asset/liability is reduced to zero, whichever occurs first.

Staff also recommends that MAWC's pension and OPEB tracker be modified on a going forward basis by combining each of the previous rate case trackers into one. At the present time MAWC has three separate trackers for pensions established from previous MAWC rate cases and three separate trackers for OPEBs, not including the current tracker for pension and OPEBs from the current rate case. Combining these trackers in this case will simplify the process going forward by calculating one lump sum tracker and amortizing it over five years in MAWC's future rate cases. Additionally, combining these trackers into one tracker will reduce the possibility of over collection of the amortization expense between rate cases when the five year amortization period ends.

Staff's combined MAWC trackers for pensions and OPEBs, as of December 31, 2010, is an asset of $1,200,466 for pensions and an asset of $1,423,961 for OPEBs. The Company's accrued pension liability as of December 31, 2010 is $1,545,872.

Staff Expert: Paul R. Harrison

E Customer Advances

Customer advances are funds provided by individual customers of the Company to assist in the construction and extension of mains to facilitate provisions of water and/or sewer service to them. These funds are 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, is the balance as of December 31, 2010, the end of the test year period. Staff has included in rate base MAWC's customer advances for all the districts, including the recently acquired systems.

Staff Expert: Paul R. Harrison

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 construction and extension of mains in order to receive provisions 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 December 31, 2010, the end of the test year period. Staff has included in rate base MAWC's CIAC for all the current districts, including the recently acquired systems.

Staff Expert: Paul R. Harrison

G. Tank Painting Tracker

In a previous MAWC rate case, Case No. WR-2007-0216, a tank painting tracker was established in the *Non-unanimous Stipulation and Agreement*. This tracker mechanism measures over time the amount of tank painting and inspection expense actually incurred by MAWC to the amount of this expense included in MAWC's rate levels. In the next two rate cases, Case Nos.WR-2008-0311 and WR-2010-0131, the tank painting tracker was continued in both agreements filed in both cases. 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. As of December 31, 2010, the tracker has produced a regulatory asset of $968,123 since it began in November 2007. In this proceeding, Staff recommends to discontinue the tank painting tracker on a going forward basis and amortize the amount of the asset over a three year period. Tank painting expense should not qualify for a tracker because the timing of this expense is usually under the Company's control, and with proper planning the Company should be able to keep tank painting expense at a relatively constant level from year to year.

Staff Expert: Kimberly K. Bolin

H. Deferred Income Taxes

MAWC's deferred tax reserve is, 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 is a source of cost-free funds to MAWC. Therefore, MAWC'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. Staff has taken this approach in calculating the deferred income tax rate base offset amount in this case. Staff has included in rate base the deferred income taxes for all of the original MAWC districts only. The accumulated deferred income taxes (ADIT) on the Loma Linda, Aqua Missouri and Roark systems were not carried forward on MAWC's books. It is Staff's understanding that carrying forward these ADITs would be a normalization violation per the Internal Revenue Service (IRS) Code.

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.

For most utilities, it is necessary to break out a utility's tax depreciation into two separate components: tax straight-line depreciation and excess tax depreciation. Tax straight-line depreciation is different from book straight-line depreciation due to the different tax basis of property allowed under the tax code. Excess tax depreciation differs from straight-line book depreciation due to the higher depreciation rates allowed in the early years of an asset's life under the current tax code. Most tax basis differences were eliminated for assets placed into service after 1986 due to the Tax Reform Act enacted that year.

Staff's typical deferred income tax adjustment consists of three components:

1. IRS Schedule M timing differences: contributions in aid of construction and advances for construction: These amounts are normalized, consistent with Staff's calculation in the prior rate case filing;
2. The tax timing difference between tax straight-line depreciation expense and tax depreciation expense: This treatment is consistent with the normalization calculation in the previous rate case filing; and
3. Excess deferred income taxes resulting from the 1986 Tax Reform Act, which created excess deferred tax amounts associated with depreciation timing differences: As such, an amortization has been created to amortize excess deferred taxes created from the change in tax rates back to customers.

In this case, a combination of the above three components make up the amounts recorded as deferred income tax expense by MAWC.

Staff Expert: Paul R. Harrison

VII. Allocations and Service Company Costs

A. Corporate Allocations

1. Introduction

American Water Works Company, Inc. (American Water or AWW) is headquartered in Voorhees, New Jersey, and its subsidiaries serve approximately 15 million customers in 33 states and the provinces of Manitoba and Ontario, Canada. 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 Works Service Company, Inc. (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 with 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	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 Properties, Inc.
American Water Resources, Inc. (AWR)	Elizabethtown Services LLC
American Water Works (AWK)	Liberty Water Company

Services performed by the Service Company are grouped into the following cost centers, each with its own list of services provided: corporate, shared services center, call centers, Belleville lab, regional offices, and information technology service centers.

Expenses incurred by the Service Company are allocated to the subsidiaries of American Water. Pursuant to MAWC's Cost Allocation Manual (CAM) (established by *Report and Order*, Case No. WR-2000-844, paragraph 4B), Service Company expenses are categorized as follows: labor, support, labor-related overhead, office expense, and vouchers/journal entries. The Service Company employees charge their time and expenses to each one of the affiliate companies either directly or indirectly. According to MAWC's 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 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 the employee's 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 number of employees. 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 the number of employees.

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 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 to that entity.

Staff Expert: Keith D. Foster

2. Service Company Management Fees

The Service Company maintains several types of offices from which it provides services to American Water subsidiaries and affiliates. 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. Staff's analysis of the Service Company management fees and the adjustments it is proposing are identified below.

Staff Expert: Keith D. Foster

a. Penalty & Other

MAWC removed an allocated total of $616 nondeductible penalty expenses. In addition to this expense, Staff removed allocated expenses related to membership dues, charitable contributions, and other miscellaneous expenses that should not be recoverable in rates.

Staff Expert: Keith D. Foster

b. Elimination of One-time Costs

MAWC removed an allocated total of $616 nondeductible penalty expenses. In addition to this expense, Staff removed allocated expenses related to membership dues, charitable contributions, and other miscellaneous expenses that should not be recoverable in rates.

Staff Expert: Keith D. Foster

c. Other Disputable Items

MAWC removed costs passed through the Service Company that were from possible disputable merchant names. Staff also eliminated these disputable costs from MAWC's expenses.

Staff Expert: Keith D. Foster

d. Annualization of Service Company Payroll

Staff included an annualized amount of the Service Company's employee wages, as of December 31, 2010.

Staff Expert: Keith D. Foster

e. Business Transformation Hardware Lease Expenses

MAWC included $41,199 in Service Company costs for hardware lease expenses related to American Water's Business Transformation Project (BTP). Pursuant to the *Stipulation and Agreement* from Case No. WR-2010-0131, all costs related to the BTP are to be "accounted for on the books of the Company as construction work in progress (CWIP)" and the CWIP balances were to be transferred to "Utility Plant in Service when in-service." (*See Stipulation and Agreement*, Case No. WR-2010-0131, paragraph 19.) The BTP is not currently in-service and, therefore, Staff disallowed these hardware lease expenses.

Staff Expert: Keith D. Foster

f. Information Technology Services (ITS) Increases in Depreciation and Maintenance Expense for 2011

MAWC included $400,070 for depreciation expense increases and $331,073 for maintenance expense increases estimated for 2011 for the Service Company's Information Technology Services (ITS). All of these estimated expenses fall outside of the test year period ending December 31, 2010. Therefore, Staff disallowed these estimated expenses.

Staff Expert: Keith D. Foster

g. Incentive Compensation

Staff removed a portion of the amount of Annual Incentive Plan (AIP) amounts included in the Service Company costs. After reviewing the AIP, Staff eliminated all incentives related to financial goals. Staff made these adjustments at the Service Company level to stay consistent with the adjustments that were made at the MAWC level for the financial goals. (Refer to Section VIII. C. 5. of this Report for a discussion of these adjustments.)

Staff Expert: Keith D. Foster

h. Other Benefit Overheads

The Service Company includes in its management fee expenses for "Other Benefit Overheads" that are allocated across all American Water regulated operating companies. Staff reviewed the MAWC Other Benefit Overhead charges and eliminated the expenses related to (1) incentives related to financial goals; (2) executive compensation for stock options and restricted stock units; and (3) the Business Transformation Project.

Staff Expert: Keith D. Foster

B. District Allocations

MAWC is currently composed of nineteen different water operating districts and seven different sewer operating districts. To determine district specific revenue requirements, all corporate rate base, revenues, and expenses must be allocated among 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, Staff has recommended basing the allocated corporate costs upon different allocation factors depending upon the causes that required the costs to be incurred. For example, Staff recommends payroll and payroll-related benefits should be allocated among the districts based upon a labor allocation factor. Belleville Lab costs are another example; Staff recommendeds these costs be allocated based upon the average number of test analyses per district. Attached as Schedule KDF 1 in Appendix 3 is a list of all of the corporate allocation factors and the percentages allocated to each of these districts for each factor.

Staff Expert: Keith D. Foster

VIII. Income Statement

A. Revenues

1. Introduction

The largest component of MAWC's operating revenues results from the rates charged to metered and unmetered water service and sewer service customers. Therefore, 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 MAWC charges its metered and unmetered customers for water or sewer service is required.

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

Staff Expert: Jermaine Green

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 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" as of the end of the test year, December 31, 2010.

The two major categories of revenue adjustments are known as "normalizations" and "annualizations." Normalizations address test year events that are unusual and unlikely to be repeated in the years when the new rates from this case are in effect. Staff's test year weather adjustment, proposed in order to smooth out extreme weather events, is an example of an item that is a normalized. Annualizations are adjustments that restate test year results as if conditions known at the end of the period had existed throughout the entire test year.

Staff Expert: Jermaine Green

3. Regulatory Adjustments to Test Year Sales and Rate Revenue

a. Normalization of Usage

MAWC provided work papers in the context of the rate case that include a history of water sales and corresponding customer numbers for the following ten service area districts (Districts): Brunswick, Mexico, Platte County, Warrensburg, Jefferson City, St. Charles, Warren County, St. Joseph, Joplin and St. Louis. MAWC proposes to normalize customer usage for the residential customers in those ten districts. In response, Staff utilized the data provided in the work papers to establish a more accurate water usage level for those residential customers.

Company witness Kevin Dunn submitted Direct Testimony regarding normalized usage under Section III. Residential Usage Normalization. Mr. Dunn proposes a method of normalization that varies from that proposed by MAWC in recent rate cases. The current proposed method considers the usage during the winter months of February, March and April as "Baseline Usage." A linear regression analysis is then performed on the Baseline Usage from past years to predict future Baseline usage. A "Discretionary Usage" is calculated from data representing any usage throughout the remaining portion of the year above what is considered Baseline. The proposed normalized usage is represented by the sum of the average calculated Discretionary Usage and the calculated Baseline usage. Ten years' worth of usage history, from 2001 through 2010, were used in the calculations. MAWC also asserts in the Direct Testimonies of Mr. Dunn and Company witness Gary Naumick that water use in general is decreasing in residential settings due to various factors including: consumer conservation, increasing efficiency standards in home appliances and water price elasticity.

Staff elected to rely on known usage numbers, as provided by MAWC, to compute an average usage for the years of 2007 through 2010 to determine an accurate, consistent and timely estimate of water usage per customer for each of the service areas. This four-year period represents the most reliable data for the most consecutive recent years possible, given the fact that data from 2006 has been deemed unreliable by MAWC in past cases due to billing method changes that occurred in that year. Staff agrees that the 2006 data is unreliable for the same reason.

Averaging the actual usage from the most current data available accounts for possible affects due to weather variables for each district and is therefore a reliable prediction method. Furthermore, trends in water usage due to conservation practices, appliance efficiency, or lawn size/irrigation practices, etc., may be unique to any given service area. Such practices would be accounted for in an average of actual recent usages.

Staff has used a very similar method of averaging customer usage from recent years to predict future usage in MAWC's two most-recent rate cases. Further, in those same rate cases, MAWC itself utilized a very similar method of averaging customer usage for several of the customer classes.

Staff's recommended usage per customer for the residential customers by service area is included in this Report in Schedule JS 1 in Appendix 3.

Staff Expert: Jerry Scheible

b. Revenues Annualization

Staff's method of computing annualized revenues for each rate class, within 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 (test year revenues consisted more of prior rates and not the current rates) provided the amount for the revenue adjustments.

The minimum charge revenues were developed by first multiplying the number of customers (or meters) annualized over the test year ending December 31, 2010, to each meter class by the applicable minimum charge as ordered in Case No. WR-2010-0131. The most current rates were used for the newly acquired systems. 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 for quarterly billed customers and twelve 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 Unit, developed and provided the normalized average gallon usage per customer per day for residential customers in the original MAWC water districts. For Commercial, Industrial, Other Public Authority (OPA) and Other Water Utilities (Sale For Resale) customers, Staff developed the average gallon usage per customer by utilizing the actual usage recorded for the twelve-months ending December 31, 2010, based on the billing units. 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 or consumption was then multiplied by the applicable tariff rate per gallon for each usage block, to determine the normalized volumetric revenues. 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. For the newly acquired systems Staff's normalized usage was calculated based on test year monthly usage adjusted for the annualized change in the number of meters or customers.

In the absence of adequate and available data, Staff could not perform a detailed customer growth analysis over a five year period for any of the districts, by customer class and by meter size. Staff has eliminated all unbilled revenues booked by the Company to the test year revenues in its revenue annualization computation.

For the purpose of this rate case, Staff has removed any impact of the Infrastructure System Replacement Surcharge (ISRS) to the annualized revenues. Staff's discussion on the treatment of the ISRS is contained within Section II.

Staff Expert: Jermaine Green

4. Compensation to MAWC for Billing Services Provided to Municipalities

In recent years, MAWC has provided unregulated billing services to various municipalities in the districts in which the Company operates. These services were provided using regulated resources, however, in prior rate proceedings the revenues derived from these services were not appropriately credited to MAWC's water customers that bore the cost of these services. In other words, the costs associated with these billing services were booked "above-the-line" whereas the revenues were booked "below-the-line." Therefore, MAWC's regulated customers have provided a rate subsidy to MAWC's unregulated billing services in prior rate proceedings. It is Staff's understanding that MAWC will discontinue the billing service arrangement between MAWC and the various municipalities it has contracted with beginning January 1, 2012. However some of the contracts extend beyond January 1, 2012, therefore Staff does not anticipate a complete termination of this service by the Company's proposed date of termination. For the purpose of this rate case, since the costs of providing these services is embedded within test year expenses, Staff has included all test year revenues for this billing service "above-the-line" in MAWC's cost of service.

Staff Expert: Jermaine Green

B. Depreciation

1. Recommendations

Staff recommends that the Commission order MAWC to:

1. Use the Company-wide consolidated depreciation rates included in the attached Appendix 3 as Schedules AR 1 and AR 2. This is discussed further below in Consistency of Depreciation Rates, Section 2.

2. Conduct a depreciation study for submission to the Commission with the Company's next rate case or within three years from the effective order date of this case. This study shall include all depreciable water and sewer plant accounts. Additionally, the definition of the retirement history to be included, the source of the historical records used in this depreciation study, and applicable distinctions in treatment among different Company tariff districts, if any, shall be submitted to the Manager of the Staff's Engineering and Management Services Unit for review sixty days prior conducting the depreciation study. This is discussed further below in Plant and Retirement History and Continuing Property Record, Section 3.

3. Record all plant cost of removal and salvage by NARUC USOA account, date, and location unit code in a permanent continuous record, including cost of removal and salvage for production units previously removed from service. Include in this record a differentiation between interim and final retirements and net salvage. This is discussed further below in Plant and Retirement History and Continuing Property Record, Section 3.

4. Not allow special additional depreciation expense for the Platte County (Parkville) water treatment plant. This is discussed further below in Accumulated Depreciation Reserves, Section 4.

2. Consistency of Depreciation Rates

Staff's recommends applying the General Plant depreciation rates ordered in Case No. WR-2010-0131 for water company assets to the General Plant sewer company assets as well as the water company assets, and applying those depreciation rates to all newly acquired assets. This will result in depreciation rates that are consistent across all Company districts for water assets and across all company districts for sewer assets, and consistent depreciation rates between water and sewer General Plant accounts. Staff's recommended rate schedules for water and sewer are shown in Schedules AR 1 and AR 2 of Appendix 3.

Neither Staff nor MAWC did a depreciation study in this case. As discussed below, under Plant and Retirement History and Continuing Property Record, Staff has significant concerns about the validity of MAWC's historical accounting records to conduct a depreciation study at this time. Staff's recommendation to utilize the rates from MAWC's last rate case avoids making changes in reliance on these records until a new depreciation study is conducted using improved documents. MAWC has acquired water and sewer assets from other utilities including Aqua, Roark, and Loma Linda since its last rate case. The orders for these acquisitions, Case Nos. WO-2011-0168, WO-2011-0213, and WO-2011-0015, respectively, specify the continued use of the original company depreciation rates until the next general MAWC rate case, this case. As a result, the current assigned depreciation rates for these recently acquired companies are not consistent between these companies and are not consistent with MAWC's last rate case. Also, the Company has requested different depreciation rates for some of the water and sewer general plant accounts, even though these general plant assets are often shared between water and sewer districts.

Staff's recommends applying the General Plant depreciation rates ordered in Case No. WR-2010-0131 for water company assets to the General Plant sewer company assets as well as the water company assets, and applying those depreciation rates to all newly acquired assets as this will simplify MAWC's depreciation accounting and provide reasonable return of expended capital to MAWC.

3. Plant and Retirement History and Continuing Property Record

Staff has significant concerns about the validity of MAWC's current Continuing Property Record (CPR) for use as accounting documents in future depreciation studies, and recommends the Commission order MAWC to conduct a depreciation study to prove its permanent continuous property record is a workable system. Staff evaluated MAWC's plant records with respect to assessing the validity of the historical record for use in depreciation studies. Staff submitted data requests for specific retirement information, and conducted a limited physical inventory check. After several attempts, the retirement information requested could not be delivered by the Company, and only about half of the items sought for the physical inventory could be found. MAWC's inability to retrieve historical retirement records from their current accounting system casts serious doubt on the validity of MAWC's current CPR for use in conducting a depreciation study. Additional discussion is contained in the attached Appendix 3, Schedule AR 3.

MAWC should conduct a depreciation study for submission to the Commission with its next rate case or within three years from the effective order date of this case. This study shall include all depreciable water and sewer plant accounts. Additionally, the definition of the retirement history to be included, the source of the historical records used in this depreciation study, and applicable distinctions in treatment among different Company tariff districts, if any, shall be submitted to the Manager of the Staff's Engineering and Management Services Unit for review sixty days prior conducting the depreciation study. This will facilitate compliance with Commission Rule 4 CSR 240-50.030 Uniform Systems of Accounts for Water Companies that contains utility plant and account instructions.

4. Accumulated Depreciation Reserves

Staff does not recommend that the Commission order any additional depreciation expense or amortization in response to MAWC's requests related to the Platte County (Parkville) water treatment plant. MAWC's overall accumulated depreciation reserve is adequate to cover the cost of retirement of this plant, if such retirement actually occurs. MAWC's book reserve is a reasonably close match to the calculated theoretical reserve. The theoretical reserve is an estimate of the portion of plant and equipment currently in service which has been consumed but not yet retired, plus the projected future cost of removal for this consumed portion. In total MAWC has an excess of approximately $15 million in depreciation reserves. Theoretical reserve discussion is included in the attached Appendix 3, Schedule AR 3. MAWC has requested aggregated depreciation rates company-wide. In recognition of this, it is not necessary to split out depreciation requirements for the Parkville facility, when in the aggregate; the Company has more than adequate retirement reserves. This is also consistent with the company-wide depreciation rates ordered for MAWC in its last rate case, requested by MAWC in this rate case, and recommended by Staff in this rate case.

Staff Expert: Arthur Rice

5. CIAC Depreciation Expense Offset

During the test year, the Company recorded approximately $3.2 million in related costs to depreciation expense for CIAC. An adjustment was made to remove the CIAC from rate base in this case, *see* Section VI, item F, and a corresponding adjustment was necessary to remove the depreciation expense associated with the CIAC that was included in rate base. The CIAC plant that was contributed by customers should not earn a "return of" allowance in the Company's current cost of service. This adjustment is made by both Staff and the Company. MAWC corporate amounts were allocated to the other districts based on the labor composite corporate allocation factor, (these allocation factors are discussed in Section VII, and listed in the attached in Schedule KDF 1 of Appendix 3).

Staff Expert: Paul R. Harrison

C. Payroll and Benefits

1. FAS 87 Pension Costs

FAS 87 is an accrual accounting method required by the accounting profession under Generally Accepted Accounting Procedures (GAAP) for financial reporting purposes. Under FAS 87 a company accrues (expenses) on employee's earned pension benefits over the service life of the employee. The total obligation to the employee for pension benefits is accumulated annually until retirement in the Accumulated Benefit Obligation (ABO). Both financial statement expense recognition under FAS 87 and the funding requirements under ERISA are based upon the same pension plan obligation to employees enrolled in the plan. While different assumptions are used for the timing of pension cost recognition during the service life of the employee under FAS 87 and ERISA, both FAS 87 and ERISA are intended to address the same total ABO by the employee's retirement date.

In Case No. WR-2010-0131, the parties entered into an agreement to use the provisions that were established in MAWC's previous rate cases, Case Nos. WR-2007-0216 and WR-2008-0311, which included, in part, the following provisions:

> The Company agrees to continue to use the Pensions/FAS 87 and OPEB/FAS 106 "Tracker Mechanisms" as established in the stipulation and approved by the Commission in Case No. WR-2007-0216. No Service Company Pension/OPEB costs shall be included in MAWC's tracker balance in this case. The revenue requirement will include the amortization of the tracker balance at the

> true-up date (April 30, 2010) amortized over a five year period, with the unamortized tracker balances to be included in rate base as a regulatory assets or regulatory liabilities, as appropriate.
>
> The subsequent tracker balances resulting from this case will start to be booked in the month following the true-up date in this rate case and will continue to be booked until the later of the test year ending date, test year update period ending date or the true-up date in the Company's next rate case. The new tracker balances resulting from this case (Case No. WR-2010-0131) will be amortized over a five year period beginning on the first day of the month following implementation of new rates in the Company's next rate case. Any unamortized tracker balances will be included in rate base as a regulatory asset or liability, as appropriate.
>
> Nothing in this agreement is intended to impair the ability of any party in the Company's next rate case proceeding to challenge the prudency of the Company's calculated levels of pension and OPEB expenses that it proposes to recover from the tracker mechanisms.

Staff has included pension & OPEB costs in this case based upon the agreement in Case No. WR-2010-0131. However, as discussed earlier in this Report, Staff recommends changes to MAWC's tracker on a going forward basis in order to accurately measure the cash investment from the Company or its customers associated with ongoing contributions to the pension trust fund.

Staff has calculated the ongoing allocated FAS 87 cost in the amount of $5,117,795. Staff's pension calculation includes the actuary's FAS 87 costs and all amortizations from MAWC's previous rate cases. See the above discussion in Section VI. D., for Staff's recommended changes and explanation of the FAS 87 tracker mechanism. Staff allocated corporate pension expense to only the MAWC districts that existed prior to the recent acquisitions based upon Staff's labor composite corporate allocation factor and application of Staff's O&M expense ratio for each district.

Staff Expert: Paul R. Harrison

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

Other Post-Employment Benefit Costs (OPEBs) are those costs incurred by the Company to provide certain benefits to retirees. These benefits include medical, dental, vision, and life insurance benefits. The Company must determine its OPEBs expenses for rate making purposes based on Financial Accounting Standard No. 106, *Employers' Accounting for Postretirement Benefits Other than Pensions* (FAS 106). Staff has provided sufficient costs in its revenue requirement calculation to reflect a proper level for these OPEB costs for MAWC. Section 386.315.1, RSMo. (2000) requires that the Commission:

> ...not disallow or refuse to recognize the actual level of expenses the utility is required by Financial Accounting Standard 106 to record for post retirement employee benefits for all the utility's employees, including retirees, if the assumptions and estimates used by a public utility in determining the Financial Accounting Standard 106 expenses have been reviewed and approved by the commission, and such review and approved shall be based on sound actuarial principles.

Section 386.315.2, RSMo 2000 requires a utility to use an independent external funding mechanism that limits or restricts disbursements only for "qualified retiree benefits" for the FAS 106 costs recognized in a utility's financial statements. Section 386.315.2 RSMo 2000 also mandates that all of the funds be used for employee or retiree benefits.

MAWC is fully funding its annual FAS 106 costs. Staff adjusted MAWC's test year FAS 106 OPEBs costs to reflect the more current FAS 106 calculation as of December 31, 2010.

Staff has calculated the ongoing allocated FAS 106 cost in the amount of $3,262,700. Staff's OPEB calculation includes the actuary's FAS 106 costs and all amortizations from MAWC's previous rate cases. See the above discussion in Section VI. D., for Staff's recommended changes and explanation of the FAS 106 tracker mechanism. The Corporate OPEB expense was allocated only to the MAWC districts that existed prior to the recent acquisitions based upon Staff's labor composite corporate allocation factor and reflects the application of Staff's O&M expense ratio for each of those districts.

Staff Expert: Paul R. Harrison

<u>3. Defined Contribution Plan (DCP)</u>

MAWC terminated its pension and OPEB plans for new employees beginning employment with MAWC in the early 2000's. The DCP expense replaces MAWC's Pension and OPEB plan expense and provides new employees hired after that date with an employer match based upon a ratio of base payroll. This ratio was applied to Staff's annualized payroll expense to arrive at MAWC's annualized expense level for DCP. The Corporate DCP expense was allocated to the original MAWC districts and the newly acquired systems based upon Staff's labor composite corporate allocation factor and reflect the application of Staff's O&M expense ratio for each district or system.

Staff Expert: Paul R. Harrison

4. Payroll and Payroll Taxes

Staff has adjusted MAWC's test year payroll expense to reflect an annualized level of payroll and payroll taxes, as of December 31, 2010, which is the endpoint of the test year period ordered for this case by the Commission.

Base payroll was calculated by multiplying employee levels at December 31, 2010, 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 three-year average of overtime hours actually incurred, multiplied by a current average hourly overtime rate.

All payroll and payroll related expenses reflect the application of O&M expense ratios calculated for each district based upon a three-year average of actual expense and construction. This ratio is then applied to what Staff calculates as the annualized payroll level. After allocation between expense and construction (O&M expense ratio), Staff's adjustment for payroll was distributed for each USOA Account, based upon the actual distribution experienced by MAWC for the twelve months ending December 31, 2010.

Staff calculated payroll taxes based upon December 31, 2010 wage levels and current tax rates. In addition, payroll taxes were computed for allowable non-financial incentive payments incurred in the test year. These incentive payments were added to each employee's base wages, to calculate the additional taxes required over the annualized salary levels.

Staff Expert: Casey Westhues

5. Incentive Compensation

All full-time management, professional, and technical employees (exempt from overtime) of the Company were eligible to participate in the 2010 Annual Incentive Plan (AIP). 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. Staff has proposed an adjustment to remove the portion of the award based on the Company achieving financial goals. Staff also removed any goals associated with the percentage-based Customer Satisfaction Survey and Customer Service Quality Survey goals and any individual goal which was based upon lobbying activities and charitable activities.

MAWC's financial goal is based on American Water's operating income, which is defined by the Company as earnings before interest, taxes and other non-operating expenses. The performance level was determined at both the corporate level and the Divisional/Regional/State level. Thus, an employee could be eligible for AIP for both the corporate financial goal and the Divisional/Regional/State level financial goal. Staff typically disallows recovery of this portion of incentive compensation in rates. Staff finds no connection between such financial results and any benefits to MAWC's ratepayers. Staff's approach to incentive compensation is long-standing. In the *Report and Order* issued in Case No. 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.

Staff also recommends a disallowance for any amounts relating to the customer and service quality surveys. According to the Company's responses to Staff's Data Request No. 0062, only 787 water customers were contacted regarding the service quality survey and only 384 customers were contacted for the customer satisfaction survey. It is Staff's position that this sampling is too small to be reflective of the entire customer population. Thus, no reward should be granted based on this small sampling.

Staff also recommends disallowing any AIP costs associated with lobbying activities and any donations to charitable organizations. All costs associated with lobbying activities or activities that involve employees participating in charitable organizations, such as planting trees, participating in the St. Patrick's Day parade, or Adopt-A-Highway have been disallowed

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

Staff Expert: Casey Westhues

6. Group Insurance and 401(k) Employer Costs

Staff calculated group insurance {group health insurance, group life insurance, accidental death and dismemberment (ADD), long-term disability (LTD) and short-term disability (STD)} based upon a ratio of test year O&M costs and test year O&M payroll expense. Staff applied this ratio to Staff's annualized payroll expense to arrive at Staff's annualized expense level.

Staff calculated 401(k) expense by taking MAWC's 401(k) contribution percentage for each eligible employee and applying it to each employee's annual wage before any overtime or Annual Incentive Plan (AIP). Staff then incorporated the inter-district 401(k) and corporate allocation for 401(k) expense to arrive at total 401(k) expense for each district. Staff then applied their O&M percentage to arrive at total O&M 401(k) expense. This was then compared to the test year O&M 401(k) to arrive at the adjustment for all districts.

Staff Expert: Casey Westhues

D. Maintenance Normalization Adjustments

1. Main Break Expense

Staff recommends an adjustment that reflects a five-year average of the number of main breaks and a three-year average of costs to repair the breaks 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, Staff has normalized this cost based upon a multi-year average.

Staff Expert: Casey Westhues

2. Tank Painting

In Case No. WR-2007-0216, a tank painting tracker was established in the *Non-unanimous Stipulation and Agreement*. In MAWC's next two rate cases, Case Nos.

WR-2008-0311 and WR-2010-0131, the tank painting tracker was agreed to be continued in the agreements filed in both cases. 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 Staff has included in rate base as an asset.

Staff has used a three year average of tank painting costs that were completed in the calendar years 2008, 2009, and 2010, to arrive at a level of tank painting expense to be included in the cost of service. A three year average is appropriate because that reflects the time period in which the tank painting tracker was in effect. Staff has included an amortization of the tank painting asset in expense as well, amortized over three years. Staff will update the tank painting tracker rate base and amortization amounts as part of its true-up audit. Staff's annualized level of tank painting expense is $1,370,136. Staff's proposed annual amortization is $322,708.

Staff allocated its annualized tank painting expense to the various districts by using an allocation factor determined by the number of tanks in each district. Staff did not allocate any of the amortization of the tank painting asset to the newly acquired properties since these districts were not owned by MAWC when the tank painting tracker was established.

Staff Expert: Kimberly K. Bolin

3. Net Negative Salvage

During the test year, the Company recorded approximately $4.3 million related to net negative salvage in several of its maintenance expense accounts. An adjustment is necessary to eliminate this amount because the net negative salvage is already included in the composite depreciation rates. This adjustment was made by both Staff and the Company. MAWC corporate amounts were allocated to the other districts based on the labor composite allocation factor, (these allocation factors are discussed in Section VII and listed in the attached Schedule KDF 1 of Appendix 3).

Staff Expert: Paul R. Harrison

E. Other Non-Labor Expenses

1. Rate Case Expenses

Staff has included the actual rate case costs incurred by MAWC as of October 18, 2011, for this rate case. Staff will include rate case expenses on a going forward basis as the actual expenses are incurred by the Company. Staff's rate case adjustment is based upon a two-year normalization period.

Staff is not recommending the inclusion of prior rate case expenses in the current Cost of Service for this case. Staff typically recommends recovery in rates of normalized rate case expenses only on a prospective basis. It is inappropriate to allow specific recovery in rates of amounts related to past rate proceedings. Staff will work with the Company throughout 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 MAWC will be examined to determine the appropriateness for inclusion in this case. This ongoing process will consider whether reasonable and normalized consulting fees, employee travel expenditures and legal representation, which are directly associated with the length of the case through the hearing process, should be properly included in this rate case.

Staff does not recommend amortization of rate case expense, because normalization treatment is more appropriate.

Staff Expert: Jermaine Green

2. Dues and Donations

Staff reviewed the list of membership dues paid, and donations made, to various organizations that MAWC charged to its utility accounts during the test year. Staff proposes adjustments to exclude various dues and donations that were included by MAWC in its above-the-line expense accounts.

In *Re: Missouri Public Service, a Division of UtiliCorp United, Inc.*, Case No. ER-97-394, et al., *Report and Order*, 7 Mo.P.S.C.3d 178, 212 (1998), 1998 WL 222959 (Mo.P.S.C.) at 30, the Commission stated:

> The Commission has traditionally disallowed donations [to charitable organizations including various country clubs and rotary clubs] 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 excluded dues and donations that were not necessary for the provision of safe and adequate service, because they 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 Energy Development Association (MEDA), Rotary Clubs, and Country Clubs. Examples of donations that were excluded include donations to the Special Olympics, United Way, and Angel's Arms. Area Chamber of Commerce dues were allowed, but Missouri Chamber of Commerce dues were disallowed because they were duplicative costs to the local Chamber of Commerce organizations.

Staff Expert: Casey Westhues

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 their customers) associated with unanticipated losses. Staff proposed an adjustment to annualize MAWC's insurance expense to reflect the premiums paid as of December 31, 2010, the end of the test year period.

Staff Expert: Casey Westhues

4. Property Tax Expense

Property taxes are those taxes assessed by state and local county taxing authorities on a utility's "real property" as of January 1st of each year. On the first of each year, utilities are required to file with the taxing authorities a valuation of its utility property owned as of the January 1 assessment date. Several months later, the taxing authorities will provide the utilities with what they refer to as "assessed values" for each category of property owned. Much later in the year (typically in the late summer/fall time frame) the utilities will be given the property tax rate. Property tax bills are then issued to the utilities with "due dates" by December 31 of the same year. Property taxes are computed using the assessed property values and property tax rates.

Staff annualized MAWC's property tax base to take into account the Company's balance of taxable assets at the end of 2010 (i.e., the January 1, 2011 balance). Staff examined the actual amounts of property tax payments made by MAWC for 2010, compared to MAWC's property tax base as of January 1, 2010, to develop a taxable ratio which was applied to the property tax base as of December 31, 2010. The property tax expense arrived at in this manner is the best estimate available of ongoing levels of these taxes. This treatment is also consistent with how property taxes have been calculated for rate purposes in the past for MAWC and other Missouri utilities. Due to lack of information for the previous years, the property tax expenses for the newly acquired systems were left unadjusted at test year levels.

Staff Expert: Jermaine Green

5. Bad Debt Expense

Bad debt expense is the portion of revenues that MAWC 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 booked to the Missouri corporate account into USOA account 904.

The ongoing or annualized level of uncollectible accounts determined by Staff for each of MAWC's districts reflects the ratio of the actual amounts of net write-offs to the related revenues for three years ending December 31, 2010. Staff applies the three year average ratio to Staff's proposed annualized revenue level for each district.

Staff Expert: Jermaine Green

6. Advertising Expense

Staff relied on the Commission's pronounced principles in the 1986 order for the Kansas City Power & Light Company rate case in forming its recommendation of the allowable level of MAWC's advertising expense. 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 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.

These categories ensure that a utility's revenue requirement: 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, Staff recommends an adjustment to exclude the costs of institutional and promotional advertising from recovery in rates. Staff found no evidence that MAWC engaged in any political advertising. Staff includes costs associated with safety advertising and general advertising because of the benefit these ads provide to the existing customers.

Staff Expert: Casey Westhues

<u>7. Postage Expense</u>

Staff's adjustment annualizes postage expense based on postage rates that become effective January 22, 2012. Staff is reflecting this change in postage expense past its test year update cutoff because the increase in postage expense is a known and measurable change caused by a governmental mandate outside the control of the Company.

Staff developed its annualized postage expense by using the actual number of large and small meter mailings for the test year ending December 31, 2010, and applying the new postage rates. Staff then allocated the annualized postage expense across the MAWC original districts based on the total number of bills allocation factor (the allocation factors are discussed in Section VII and in Schedule KDF 1 of Appendix 3). The test year postage expense was then subtracted from allocated postage expense to derive the adjustment. The postage expenses for the newly acquired systems were left unadjusted, due to the lack of adequate information from the previous years.

Staff Expert: Jermaine Green

8. Franchise Tax Expense

MAWC pays a franchise tax in order to conduct business in the State of Missouri. Staff's adjustment to the franchise tax expense was left at test year levels, as of December 31, 2010. The expense was then allocated across the districts using the labor composite allocation factor (the allocation factors are discussed in Section VII and listed in Schedule KDF 1 of Appendix 3). Staff did not allocate any of the franchise tax expense to the newly acquired systems since the assets of the new systems were not included in the formula, used by the State of Missouri that determines the amount of franchise tax to be paid.

Staff Expert: Jermaine Green

9. Amortization of Regulatory Assets

This regulatory asset was created as part of the *Non-unanimous Stipulation and Agreement* in Case No. WR-2007-0216. The asset is the result of 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 *Non-unanimous 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.

Staff is not recommending an adjustment to the test year amount of $171,265 for this case. The test year level represents only the Missouri allocated portion of the fifty year amortized Call Center and National Shared Services Center transition costs.

Staff Expert: Paul R. Harrison

10. Chemical Expense

Staff's 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 average system delivery reported by the Company, as well as the normalized and annualized system delivery determined by Staff. All of these factors were combined to produce the annualized costs of chemicals that MAWC is required 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 unaccounted for water. These water losses may result from leaky pipes, substandard metering, or inaccurate recordkeeping. During the test year, the loss percentage among the Company's water districts varied from approximately 9 percent to 21 percent. Water losses within each water district varied over a three-year period, leading Staff to conclude test year losses were not necessarily indicative of normal water loss over time. Therefore, Staff used a three-year average of district percentages to arrive at a normalized water loss percentage for each district. This normalized water loss percentage was then used to calculate the annualized system delivery for the purpose of calculating chemical costs.

Staff Expert: Keith D. Foster

11. Electricity

Staff's adjustment annualizes fuel and power costs for each current district based on the current cost of electricity and the normalized system delivery.

The average power cost per 1,000 gallons of water production was developed for each current 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 also reflects the normalized water loss percentages for those districts that recorded an actual water loss. The test year fuel and power costs were then subtracted from the annualized expense to derive the adjustment.

Staff Expert: Keith D. Foster

12. Purchased Water

Staff's adjustment annualizes purchased water in the St. Louis County, Parkville, and Jefferson City water operating districts. These districts purchase water from the City of St. Louis, Kansas City, and Callaway County respectively. The purchased water adjustment reflects the annualization of the purchased water cost in the three operating districts based on the annualized system delivery for St. Louis County, Parkville, and Jefferson City districts. Due to lack of information concerning prior year's water purchased, the Spring Valley district's purchased water expense remained at the test year level.

Staff Expert: Jermaine Green

13. Transportation Lease Expense

Transportation lease expense is the cost associated with vehicles (trucks and cars) and other power-operated equipment (backhoes, tractors, and forklifts, etc.). Staff reviewed the effective dates of these leases to determine which leases would be ongoing after the December 31, 2010, test year period. Once the on-going leases were determined, Staff annualized the cost of these leases. Since these vehicles are directly assigned to each current district, it is not necessary to use allocation factors. However, an O&M expense factor is applied to determine the overall amount charged to expense. Staff normalized the transportation lease expense based upon leases in effect during the test year.

Staff Expert: Casey Westhues

14. PSC Assessment

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

Staff Expert: Jermaine Green

15. Belleville Lab Expense

All Belleville Lab 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 Lab. For the test year, MAWC received only an indirect cost allocation based on a customer allocation ratio of approximately 14.24 percent.

Staff's adjustment reduces MAWC's expense to reallocate the indirect portion of Belleville Lab 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, 2010, 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 5.29 percent. The test analysis ratio is a more appropriate allocation method for cost distribution than using customer numbers, and Staff recommends that MAWC's Belleville Lab costs be adjusted and distributed using the test analyses ratio.

The function of the Belleville Lab facility is exclusively for water sample testing to comply with required regulations. Therefore, test analyses represents a better basis of allocation than the number of customers, because it represents a direct measurement of the work that is actually being performed at Belleville Lab for MAWC in relation to the work being performed by the lab for American Water subsidiaries in total. Furthermore, the amount of testing required for each subsidiary is dependent upon the type of facilities operated and the environment of the service area, more so than the number of customers that are served. The Staff's recommended allocation method will more accurately match cost-causers to costs.

Staff Expert: Keith D. Foster

16. Promotional Items

Staff recommends disallowing all costs associated with promotional items that the Company gives away at events such as local trade shows and exhibitions. Some of the items given away during the test year were: mini flashlights, water bottles, mini Frisbees, mini notebooks, and seed packets. Such promotional giveaways are not necessary for the provision of safe and adequate service and, thus, have no benefit to the ratepayer and should not be included in the Company's cost of service.

Staff Expert: Casey Westhues

F. Current and Deferred Income Tax

1. Current Income Tax

Staff's current income tax has been calculated generally consistently with the methodology used in Case No. WR-2010-0131. Staff's adjustments start by taking adjusted net operating income before taxes and adding to or subtracting from net income various timing differences in order to obtain net taxable income for ratemaking purposes. These "add back" and/or subtraction adjustments are necessary to identify new amounts for the tax deductions that are different from those levels reflected in the income statement as revenues or expenses. The adjustments are the result of various book versus tax timing differences and the effect of such differences under separate tax methods: flow-through versus normalization. A tax timing difference occurs when the timing used in reflecting a cost (or revenue) for financial reporting purposes (book purposes) is different than the timing required by the IRS in determining taxable income (tax purposes).

The normalization tax method defers the tax deduction taken for tax purposes for those taxes that are taken as tax deduction for ratemaking purposes.

The flow-through tax method essentially provides for the same tax deduction taken as a deduction for ratemaking purposes as is taken for tax purposes.

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
- Advances for Construction
- Contributions in Aid of Construction
- Miscellaneous Non-deductible Expenses
- 50% Meals & Entertainment
- **Subtractions from Operating Income Before Taxes:**
- Interest Expense- Weighted Cost of Debt
- Tax Straight-Line Depreciation
- Excess-Tax Depreciation

The resulting net taxable income for ratemaking is then multiplied by the appropriate federal and state tax rates to obtain the current liability for income taxes. A federal tax rate of 35 percent and a state income tax rate of 6.25 percent are normally used for calculating current income taxes for utilities with net income over $18.3 million. This composite tax rate (state and federal copulated together) is 38.39 percent. However, Staff's revenue requirement for each district in this case, and for total Company is considerably lower than the $18.3 million net taxable income requirement for the 35 percent federal income tax rate. Therefore, Staff used the federal income tax table for net taxable income to calculate MAWC's current federal income taxes for each district instead of the 35 percent.

The difference between the calculated current income tax provision and the per book income tax provision is the current income tax provision adjustment.

Staff Expert: Paul R. Harrison

2. Straight Line Tax Depreciation

Annualized book depreciation is a result of multiplying the plant investment at December 31, 2010, the end of the test year period for this proceeding, by the book depreciation rates recommended by Staff witness Arthur Rice of the Engineering and Management Services Unit. Straight line tax depreciation represents the tax deduction for book depreciation for a regulated utility for ratemaking purposes.

The IRS allows a regulated utility, like any other corporation, to use an accelerated depreciation method in calculating its current income tax liability. However, with regard to a regulated utility, Congress intended for the additional cash flow (lower current income tax), resulting from an accelerated depreciation method, to be retained by the utility. As a result, under IRS rules for a regulated utility, the additional deduction resulting from the use of an accelerated depreciation method cannot be reflected in rates. Ratepayers receive the tax deduction for depreciation expense over the same period used for book accounting purposes.

In this MAWC rate case, Staff's book depreciation and tax straight-line tax depreciation are different. Staff applied a 97.55 percent straight line tax ratio to MAWC's book depreciation to calculate MAWC's straight-line tax depreciation. Staff adjusted the deferred income tax expense to reflect the normalization of the timing differences related to excess depreciation.

Staff Expert: Paul R. Harrison

3. Deferred Income Tax Expense

When a tax timing difference is reflected for ratemaking purposes consistent with the timing used in determining the taxable income amount for current income tax due under 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 in a way that is 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. Staff also recognized the deferred income taxes related to the amortization of prior year deferred amounts associated with the depreciation and investment tax credit.

Staff Expert: Paul R. Harrison

IX. Customer Billing and Call Center Summary

A. Introduction

Staff recommends that the Engineering and Management Services Unit (EMSU) continues to follow-up and monitor all aspects of the customer billing operations of the Company following the completion of this case. Staff recommends the Commission include in its order that MAWC continue reporting certain information to Staff, as described below. The Company has recently acquired several water and sewer companies in Missouri[6] and has expanded its water and sewer services throughout the state.[7] It is possible that the Company will continue to acquire other water and sewer companies and further expand its water and sewer services throughout Missouri. During Staff's review on various MAWC cases, the Staff observed various customer billing statement errors produced by the Company's billing system[8]; some of these errors were known to the Company, but some were unknown to the Company.

[6] See Case with File Nos. WO-2011-0168, SO-2011-0169, WO-2011-0213, SO-2011-0214, SO-2011-0331 and SO-2012-0091.
[7] See Case with File Nos. WA-2012-0066 and SA-2012-0067.
[8] Case with File Nos. WO-2011-0168, SO-2011-0169, WO-2011-0213 and WR-2011-0337.

Commission Rules contained in 4 CSR 240-13 (Chapter 13) provide specific direction for the residential customers' billing processes of regulated electric, gas and water utilities. Among other issues, Chapter 13 addresses the specific billing period by which utilities should bill for usage, what information should be presented on customer bills, direction regarding billing estimation, meter readings and other requirements.

The Company is currently in the process of designing a new customer information system (CIS) with an expected implementation date of 2014, although Company personnel have indicated the date could possibly be 2015. This new CIS will address the finance, human resources and supply chain needs of the Company.

Staff will review the CIS process to ensure that customers are billed correctly following the implementation of the new CIS. Staff will continue to work toward ensuring that quality services are provided to the Company's entire customer base and that the Company implements efficient and effective business practices. Staff will continue to monitor the Company's billing practices until such time as Staff is satisfied that the Company's billing processes sufficiently adhere to Chapter 13.

B. Customer Billing

Following the Company's acquisition of Aqua, Case No. WO-2011-0168, Staff monitored the areas agreed to in the *Unanimous Stipulation and Agreement*.[9]

Initially, Staff reviewed a 5 percent sample size, approximately 162, of the first month's billing statements of the newly acquired Aqua customers. Due to anomalies found in the first month's billing statements, Staff requested an additional two months of the same customer billing statements plus an additional 5 percent sample size, approximately 162, of the customer billing statements for the entire amount of acquired Aqua customers for a total of approximately 324 customer billing statements. Additionally, Staff reviewed approximately 50 monthly billing statements of the former Roark customers following the acquisition by the Company.[10] Staff met on several occasions with various Company personnel,[11] conducted numerous conference calls[12] with Company representatives and

---

[9] See Appendix D to *Unanimous Stipulation and Agreement* in Case with File No. WO-2011-0168, filed March 30, 2011.

[10] See *Unanimous Stipulation and Agreement* filed April 6, 2011, in Case with File No. SO-2011-0214.

[11] Meetings were conducted July 11, 2011, July 14, 2011 and October 18, 2011.

[12] Conference calls with held June 24, 2011, June 25, 2011, June 28, 2011, July 5, 2011, July 27, 2011, July 28, 2011, August 5 and August 7, 2011.

communicated often via email with the Company. During the review of these monthly customer billing statements for the former Aqua and Roark customers, Staff noted the following errors or potential errors:

1. Customers were billed for periods other than a normal usage period defined as not less than twenty-six (26) nor more than thirty-five (35) days for a monthly billed customer,
2. Customers were not billed monthly customer charges,
3. Customers were over billed,
4. Customers were under billed,
5. No billing period provided on billing statements,
6. No meter readings provided on billing statements,
7. Customers were billed on incorrect schedules for water and sewer,
8. Water comparison chart with months not printed, and
9. Water comparison chart with inaccurate previous month's usage.

Billing errors one through seven are violations of the Commission's Chapter 13 Rules.[13]

During the current case, Staff submitted data requests and conducted conference calls[14] and interviews[15] with various Company personnel. Staff is continuing its investigation into these errors in the current case and may provide additional testimony on this issue in the future. Additional data requests were submitted to the Company on Friday, November 11, 2011, and the Company responses are expected no later than December 1, 2011.

C. Call Centers

The Company has two customer call centers—one in Alton, Illinois, and one in Pensacola, Florida. As Staff understands, the two call centers are physically and operationally mirror images, so that, if necessary, Company staff could easily work at either call center. All of the customer calls are initially received at the Alton, Illinois call center and are forwarded

[13] See 4 CSR 240-13 (Chapter 13—Service and Billing Practices for Residential Customers of Electric, Gas and Water Utilities).
[14] September 19, 2011 and October 26, 2011.
[15] October 19 and 20, 2011.

to call center representatives based upon the subject matter of the call and then routed to the first available representative at the Alton or Pensacola call centers.

Staff has monitored the Company's call center performance since January 2002 at which time the Company began reporting its call center metrics as a result of Case with Case No. WM-2001-309. The Company provides to Staff on a monthly basis the following call center statistics: the service level percentage of Missouri calls answered within 30 seconds, the abandoned call rate of Missouri calls after 30 seconds, the percentage of Missouri calls with first call effectiveness, the percentage of Missouri customer inquiry responses performed within three days, and the total number of Missouri calls offered. The Company also provides meter reading data, including estimated reads, as a result of Case No. WR-2007-0216. The Company has provided its call center performance statistics through September 2011, although the Company indicated that call center data was unavailable for January, February, and March 2010.

The call volume to the call centers tends to be sporadic. The monthly average call volume from Missouri customers for 2008, 2009, 2010 and YTD 2011 was 30,199, 27,623, 36,277 and 33,789, respectively. The approximate number of calls per thousand customers in Missouri for 2008, 2009 and 2010 was 65.42, 59.83 and 78.78[16], respectively.

The Company's abandoned call rate (ACR) target, which is the percentage of calls that end before conversation with a call center representative occurs, is 6.5% and its goal is 5.5%. Since January 2008, the Company has not achieved its target or its goal for three of the forty-two months reported and all three occurred in 2008.

The Company's average speed of answer (ASA) target, which is the percentage of customer calls answered by a call center representative within 30 seconds, is 80%. Since January 2008, the Company has not achieved its target for eight of the forty-two months reported.

Staff has toured the Alton, Illinois, call center on several occasions. The most recent tour of the facility occurred on October 19 and 20, 2011, where Staff was provided presentations of the call center operations, performed call monitoring with call center representatives and observed Company employees making adjustments to customer bills

[16] A spike of 147 occurred in October.

including making adjustments to customer bills that were elevated to specialized personnel for various reasons.

Staff does not currently have concerns regarding the Company's call center performance statistics; however, Staff will continue to monitor the monthly data it receives.

D. Conclusion

Staff will monitor the Company's operation to determine whether customers receive accurate customer billing statements as well as billing statements that are in full compliance with the Commission's rules and the Company's tariffs. Staff does have some outstanding concerns regarding the Company's billing process; however, Staff has noted some recent improvement in the Company's Missouri billing process. Staff intends to continue to monitor the Company's billing performance and work with the Company closely in its billing area. Should matters remain unresolved, Staff may petition the Commission for additional action.

In addition, Staff wants to make certain that the Company's call center performance does not decline. Staff is concerned that inaccurate customer billing statements could lead to increased call volume which could negatively impact the Company's call center performance. Other factors may also impact the Company's call center, such as the acquisition of additional customers in Missouri as well as the implementation of a new customer information system, which is one aspect of the Company's Business Transformation Process.

Staff Expert: J. Kay Niemeier

X. Rate Design

In this case, Staff will be recommending a different approach to rate design than that which has been used in past rate cases. MAWC has undertaken a very aggressive approach in acquiring numerous systems throughout the state of Missouri. Most of these systems are small, development-type systems with a very small customer base. The systems acquired from Aqua Missouri are typical of the small, development-type systems that MAWC has purchased from other companies. Due to this recent development, Staff will be recommending a hybrid approach between full single-tariff pricing (STP) and full district-specific pricing (DSP). In Staff's November 10, 2011, filing, Staff submitted its revenue requirement calculations. Those revenue requirement numbers were divided according to Staff's ultimate rate design recommendation.

Staff's recommendation will be to combine MAWC's various water systems into three districts. District One will consist of the following systems: St. Louis Metro, Incline Village (Warren County), Mexico, Jefferson City, and Lake Carmel (near Jefferson City)/Maplewood (near Sedalia). District Two will consist of the following systems: St. Joseph, Platte County, and Brunswick. District Three will consist of the following systems: Joplin (including Loma Linda), Roark, Warrensburg, and all of the former Aqua systems not previously accounted for in other districts (White Branch (near Warsaw), Lake Taneycomo, Lakewood Manor, Rankin Acres, Spring Valley, and Riverside Estates).

Staff's recommendation will be to combine MAWC's various sewer systems into four districts. District One will consist of Cedar Hill and Incline Village (Warren County). District Two will consist of the old Aqua systems in the Jefferson City Area, Laurie, Lake Carmel, and Maplewood. District Three will consist of Platte County. District Four will consist of Roark.

Staff's reasoning and support for its rate design recommendation will be submitted on December 12, 2011, in its Direct Testimony and filed in conjunction with the Class Cost of Service/Rate Design portion of the case.

Staff Expert: James A. Busch

Appendices

Appendix 1:	Staff Credentials
Appendix 2:	Support for Staff Cost of Capital Recommendation – Matthew J. Barnes
Appendix 3:	Average Service Lives – Arthur Rice
	Usage Per Customer - Jerry Scheible
	Allocation Factors Used – Keith D. Foster

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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

AFFIDAVIT OF MATTHEW J. BARNES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Matthew J. Barnes, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report as identified in the individual sections as identified in the Table of Contents of said Report; 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

Matthew J. Barnes

Subscribed and sworn to before me this 17th day of November, 2011.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

D Suzie Mankin

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-2011-0337

AFFIDAVIT OF KIMBERLY K. BOLIN

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Kimberly K. Bolin, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Staff Report as identified in the individual sections as identified in the Table of Contents of said Report; 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.

Kimberly K. Bolin

Kimberly K. Bolin

Subscribed and sworn to before me this 17th day of November, 2011.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

D Suzie Mankin

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-2011-0337

AFFIDAVIT OF JAMES A. BUSCH

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

James A. Busch, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report as identified in the individual sections as identified in the Table of Contents of said Report; 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. Busch

Subscribed and sworn to before me this 17th day of November, 2011.

D Suzie Mankin
Notary Public

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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

AFFIDAVIT OF 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 as identified in the individual sections as identified in the Table of Contents of said Report; 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 17th day of November, 2011.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

D Suzie Mankin
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-2011-0337

AFFIDAVIT OF JERMAINE GREEN

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

Jermaine Green, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report as identified in the individual sections as identified in the Table of Contents of said Report; 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.

JGreen

Jermaine Green

Subscribed and sworn to before me this 17th day of November, 2011.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

D Suzie Mankin

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-2011-0337

AFFIDAVIT OF PAUL R. HARRISON

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Paul R. Harrison, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report as identified in the individual sections as identified in the Table of Contents of said Report; 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

Paul R. Harrison

Subscribed and sworn to before me this 17th day of November, 2011.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

D Suzie Mankin
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-2011-0337

AFFIDAVIT OF J. KAY NIEMEIER

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

J. Kay Niemeier, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Staff Report as identified in the individual sections as identified in the Table of Contents of said Report; 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.

J. Kay Niemeier

J. Kay Niemeier

Subscribed and sworn to before me this 17th day of November, 2011.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

D Suzie Mankin

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-2011-0337

AFFIDAVIT OF ARTHUR W. RICE, PE

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Arthur W. Rice, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Staff Report as identified in the individual sections as identified in the Table of Contents of said Report; 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.

Arthur W. Rice
Arthur W. Rice, PE

Subscribed and sworn to before me this 17th day of November, 2011.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

D Suzie Mankin
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-2011-0337

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 as identified in the individual sections as identified in the Table of Contents of said Report; 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
Jerry Scheible

Subscribed and sworn to before me this 17th day of November, 2011.

D Suzie Mankin
Notary Public

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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

AFFIDAVIT OF CASEY WESTHUES

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Casey Westhues, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Staff Report as identified in the individual sections as identified in the Table of Contents of said Report; 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.

Casey Westhues
Casey Westhues

Subscribed and sworn to before me this 17th day of November, 2011.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 08, 2012
Commission Number: 08412071

D Suzie Mankin
Notary Public