MISSOURI PUBLIC SERVICE COMMISSION

STAFF'S

CLASS COST-OF-SERVICE

AND

RATE DESIGN REPORT

MISSOURI-AMERICAN WATER COMPANY

CASE NO. WR-2010-0131

Jefferson City, Missouri
March 26, 2010

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I. Executive Summary

A. Staff Class Cost-of-Service and Rate Design Objectives

Staff's class cost-of-service and rate design objectives are:

1. *To develop rates reflecting the class cost-of-service (CCOS) in all districts except the Brunswick and Warren County Districts.* Customers pay their actual cost of receiving service and the Company has an opportunity to recover its actual cost of providing service (including an opportunity to receive a return on its investment) by assigning the results of the CCOS to each customer classification;
2. *To move the rates closer to the CCOS in the Brunswick and Warren County Districts.* Staff believes each customer in each district should pay their true cost of service, however, Staff also recognizes that this would place a burden of extremely high rates for the customers of the Brunswick and Warren County Districts;
3. *To eliminate the declining block rates by developing single block rates in each customer classification for each district.* Single block rates are easy for the customer to understand and will eliminate the increased burden placed on the small volume user in the first block of a declining block rate structure;
4. *To collect the Commission-ordered overall increase or decrease in revenues.*

B. Staff's Plan to Accomplish These Objectives

To accomplish these objectives, Staff recommends the following actions by the Commission:

1. Adoption of Staff's proposed rates, which reflect the results of Staff's CCOS study and which allocates costs to each customer classification in each district.
2. Reduction in the amount of the subsidy to the Brunswick and Warren County Districts provided by the St. Louis Metro (SLM) District;
3. Adoption of the single block rates within each customer classification for each district as recommended by Staff.
4. Order an overall revenue increase/decrease be implemented according to each rate component of each rate schedule as recommended by Staff.

II. Class-Cost-of-Service Water Operations

A. Overview

The purpose of Staff's CCOS study is to determine and provide the Commission with a measure of relative class cost responsibility for Missouri-American Water Company's (Company or MAWC) overall revenue requirement on a district specific basis. For purposes of Staff's CCOS study, Staff used the customer classifications provided by the Company. For individual costs, class cost responsibility can be either assigned or allocated to customer classes using reasonable methods for determining the class responsibility for that cost. The results are then summarized so that they can be compared to revenues being collected based on current rates.

The CCOS study does not include any allowance for a true-up estimate as provided in the Staff's Accounting work papers. At this time it is impossible to accurately spread a true-up estimate among the various cost allocation factors without knowing which specific accounts are affected by the true-up.

B. Base-extra Capacity Method

Staff allocated each district's total cost using the "base-extra capacity" method, which is a method generally accepted by the industry. This method involves allocating the various cost components based on data pertaining to operating costs, operating revenues, system capacity, customer usage and customer numbers. The results of these allocations show the relative cost-of-service for each customer class and the appropriate revenue levels that should be recovered from each customer class. Rates are then designed to recover the costs that are allocated to each class.

In the base-extra capacity method, costs are generally separated into four (4) primary cost components: (1) base costs, (2) extra capacity costs, (3) customer costs, and (4) direct fire protection costs.

Base costs are the costs that vary with water consumption and are allocated to customer classifications according to the amount of water consumed.

Extra capacity costs are the costs associated with meeting the requirements that are in excess of the average load conditions. The extra capacity costs include operation and

maintenance expenses and capital costs for system capacity above what is required for the average rate of use.

Customer costs are those costs associated with the number of customers, regardless of consumption. These costs include customer accounting and collection expenses, meter-reading expenses, billing expenses and return on and of plant related to meters and services.

Fire protection costs are those costs directly assigned to fire protection functions.

Allocation of each of these costs is accomplished by applying class allocation factors. These class allocation factors are applied to the annualized and normalized expenses, plant, rate base and return on investment to determine the total costs to be recovered in each district.

The customer class allocation factors developed are based on Staff's district specific cost-of-service allocations as of Staff's direct filing and, as noted above, do not include the recovery of any true-up allowance.

C. Schedules included in Staff's CCOS Study

Schedule 1 includes Staff's CCOS study for each district, which summarizes the current cost of service, revenues at present rates, revenues at proposed rates and the amount of increase/decrease for each customer class within each operating district.

Schedule 2 shows the allocation of the Auditing Department's cost-of-service by customer class and then to the functions of base use, maximum day use, maximum hour use, meter cost and service cost, billing and collection cost and fire service cost for each operating district.

Schedule 3 shows the development of the allocation factors used in the allocation between customer classifications shown in Schedule 2.

Schedule 4 includes the number of meters and services for each operating district with an appropriate weighting factor for each customer class.

Schedule 5 shows the allocation to public and private fire service costs in proportion to the relative potential demands placed on each system by public fire hydrants and private fire services.

D. Allocation Factors

Factor 1 is the allocation of costs that vary with the amount of water consumed. This factor is used in the allocation of such costs as purchased water, purchased power, and chemicals. The costs are allocated to the customer rate classifications in proportion to the

average daily consumption for each customer rate classification. These types of costs vary with the amount of water consumed and are considered base costs.

Factors 2 and 3 are the allocations of costs associated with facilities serving base and maximum day extra capacity functions, and the allocation of costs associated with facilities serving base, maximum day extra capacity and fire protection functions. These factors are calculated by the allocation of such costs as source of supply expenses (excluding purchased water) and water treatment expenses (excluding chemicals). These types of costs are associated with meeting usage requirements in excess of the average, and generally, they are the costs associated with meeting maximum day requirements.

Factors 4 and 5 are the allocation of costs associated with facilities serving base and maximum hour extra capacity functions, and the allocation of costs associated with storage facilities. These factors are calculated by the allocation of costs related to smaller mains and storage facilities such as tanks and standpipes. These costs are allocated partly on average consumption and maximum hour extra demand. These types of costs are related to facilities that are designed to meet maximum hour and fire protection requirements.

Factor 6 is the allocation of costs associated with power and pumping facilities. These costs are allocated on the combined bases of maximum day and maximum hour extra capacity. This factor is calculated by the weighting of factors 2, 3 and 4 for each customer classification.

Factor 7 is the allocation of costs associated with transmission and distribution mains. This factor is calculated from the weighting of factors 3 and 4.

Factor 8 is the allocation of costs associated with fire hydrants. This factor is calculated by the allocation of costs directly associated with fire hydrants themselves and the maintenance thereof.

Factor 9 is the allocation of costs associated with meters. This factor is calculated by the allocation of costs associated with the meters themselves and the maintenance thereof. These costs are allocated to the customer classifications based on the size and quantities of meters serving each customer classification.

Factor 10 is the allocation of costs associated with services. This factor is calculated by the allocation of costs associated with the cost of service by customer classification.

Factor 11 is the allocation of transmission and distribution operation supervision and engineering and miscellaneous expenses. This factor is calculated by the allocation of operation costs for each customer classification.

Factor 12 is the allocation of transmission and distribution maintenance supervision and engineering, structures and improvements and other expenses. This factor is calculated by the allocation of maintenance costs for each customer classification.

Factor 13 is the allocation of billing and collection costs. This factor is calculated by the total number of customers for each customer classification.

Factor 14 is the allocation of meter reading costs. This factor is calculated by the number of metered customers for each customer classification.

Factor 15 is the allocation of administrative and general expenses and cash working capital. This allocation includes all other operation and maintenance expenses except purchased water, power, chemicals and waste disposal for each customer classification.

Factor 16 is the allocation of labor related taxes and benefits. All direct labor expenses are included in this factor for each customer classification.

Factor 17 is the allocation of organization, franchises and consents, miscellaneous intangible plant and other rate base elements. This factor is based on original cost less depreciation for each customer classification.

Factor 18 is the allocation of income taxes and income available for return for each customer classification.

Factor 19 is the allocation of regulatory commission expenses, assessments and other water revenues for each customer classification.

E. Transmission Mains and Distribution Mains

One change in Staff's present CCOS study as compared to previous CCOS studies is that Staff is proposing a main adjustment for certain large industrial customers in the Joplin, St. Joseph and SLM Districts. Staff has reviewed maps of the Company's distribution systems for the above-mentioned districts and believes it is appropriate to make a main adjustment for certain large industrial customers. Staff has performed an adjustment similar to the Company's for the Joplin and St. Joseph Districts.

Staff believes the distribution system of the SLM District is significantly more complicated because of the number of transmission and distribution mains and the size of the

system. Staff believes it is appropriate to make a main adjustment for the large industrial customers connected to mains 12-inches and larger. Staff used the Company's consumption adjustment of 54.2% for the large industrial customers in the SLM District. Staff does not believe it is appropriate at this time to make an adjustment on the remaining industrial customers being served on smaller mains because all transmission and distribution mains are being used to transmit and distribute water to these remaining customers.

The Company does not classify its mains by function in most of its districts. Rather, the Company makes the assumption that mains that are larger than 10" are transmission mains and mains that are 10" or smaller are distribution mains. Staff assigned the total footage of mains to the maximum hour consumption in factor 7.

F. Results of Water Class Cost-of-Service Study

Staff believes the CCOS study correctly allocates the cost of providing service to each customer classification in each district. Since the CCOS in the Brunswick and Warren County Districts continues to be extremely high, and would cause an undue burden to those ratepayers, Staff is proposing that the rates for these districts continue to be subsidized, albeit at a lesser level than the previous rate case. The subsidization of rates at Staff's proposed level not only avoids this undue burden and allows more "reasonable" rates to the customers in the Brunswick and Warren County Districts, but also more precisely allocates the cost of providing service to each customer classification served by the Company.

III. Rate Design Water Operations

A. Overview

Staff's rate design for the Company's water operations is based on the actual revenue requirement for each district and that district's CCOS to determine each customer class' cost-of-service. The rates generally consist of a fixed monthly customer charge and a usage (commodity) charge, which are generally based upon the number of customers in the class and the usage characteristics of those customers.

B. Design of Block Rates

Presently, a single-block rate is used for residential customers in the Brunswick, Joplin, Jefferson City, Mexico, St. Joseph, and Warrensburg Districts. The SLM District utilizes a single-block rate for all customer classes. In the Parkville District and the non-

residential customer classes in the above districts, excluding SLM, a declining block rate structure is utilized. A declining block rate structure is one in which the commodity rate is based upon pre-established blocks of usage. As the customer consumes more and moves to a different block, the commodity rate declines; or, stated another way, the more a customer uses, the additional gallons are cheaper than the initial gallons. Staff is proposing the elimination of the declining block structure in the remaining customer rate classifications for these districts and the elimination of the declining block structure in all of the customer rate classifications for the Parkville District and establishing a single-block rate. The existing declining block rates result in the small users in a customer class paying much more of the costs to provide their water than large customers pay, due to the fact that as more water is used, the rate being charged is lower. Also, moving away from a declining block structure is a move towards conservation.

C. Results of Water Rate Design

Due to the move from a declining block rate structure to a single-block rate structure, Staff's proposal will cause the commodity rates within the larger usage blocks to increase at a greater rate than changes in the initial block. Depending on the overall change in revenue requirement to a specific district, the initial block may actually increase or decrease. Staff is continuing to support district specific customer charges.

Staff's proposed rates continue to be significantly higher in the Brunswick and Warren County Districts when compared to the Company's other districts. The proposed commodity charge for the Brunswick District is almost three times the Warren County proposed commodity charge. The proposed customer charge and proposed commodity charge for the Warren County District are approximately twice as high as the average of the other operating districts of the Company. Staff recommends costs continue to be spread to the St. Louis District to continue assisting these two districts with their high cost-of-service.

IV. Class-Cost-of Service Sewer Operations

A. Overview

Because the Company's sewer operations are relatively small and generally consist of residential customers Staff did not perform a CCOS study for the Company's sewer operations. Staff's audit and development of cost-of-service (COS) for MAWC's sewer

operations is based on the Water & Sewer Departments small company rate design methodology.

Warren County (Incline Village) has two commercial sewer customers consisting of the Homeowner's clubhouse. The usage characteristics for these two sewer customers mirror the usage of a residential customer. The Cedar Hill District has commercial customers; however, none of these systems have the complexities of allocating costs between varied customer classes.

B. Results

The COS indicates that the customer base for the Warren County District is insufficient to distribute the high cost of providing service and plant investment at a reasonable level among the existing customers.

The COS for the sewer districts do not include any allowance for a true-up estimate for the same reasons stated earlier in the overview of the CCOS for the water operations.

V. Rate Design Sewer Operations

A. Overview

Staff's rate design for the Company's sewer operations is based on the Water & Sewer Departments small company rate design methodology. The customers of the Parkville and Warren County sewer districts are based on a flat rate while the customers of the Cedar Hill District have a customer charge and a commodity charge for any usage above 6,000 gallons.

B. Design of Rates

Schedule 6, 7, and 8 are the rate design worksheets for the Company's sewer operations and contain the following pages: Rate-Making Income Statement, Revenues-Current Rates, Rate Design, Revenues-Proposed Rates and Residential Customer Billing Comparison.

The Rate-Making Income Statement worksheet is a summary of the Company's operating revenues at current rates and the Company's cost-of-service determined by the Commission's auditing department. The last line on the worksheet is the overall revenue increase that Staff is recommending for each sewer district.

The Revenues-Current Rates worksheet summarizes Staff's annualized number of the Company's customers for each sewer district. The Cedar Hill sewer district is further

summarized by customer type and whether the customers are metered or non-metered. In addition, the center of the worksheet summarizes Staff's annualized commodity volumes over 6,000 gallons for the customers of the Cedar Hill District. The Company's other revenues are summarized for each district and the bottom of the page summarizes the total operating revenues for each district.

The Rate Design worksheet computes the amount of the increase from the Company's current approved rates to Staff's proposed rates. As shown on the Rate Design worksheet, Staff is proposing an equal percentage increase for the customer and commodity charge in the Cedar Hill Sewer District.

The Revenues-Proposed Rates worksheet is similar in layout to the Revenues-Current Rates worksheet. The primary differences between these two sheets are the Proposed Rates worksheet computes Staff's proposed rates based on the proposed rates listed on the preceding Rate Design worksheet and the last two lines of the worksheet compares Staff's increase in revenues at proposed rates verses Staff's recommended increase in operating revenues.

The Residential Customer Billing Comparison worksheet compares the current residential customer rates to Staff's proposed residential customer rates. The worksheet also summarizes the proposed increase by dollar and percentage amounts.

C. Results of Rate Design

Since the COS in the Warren County District continues to be extremely high, and in Staff's opinion would cause rate shock to the ratepayers, Staff is proposing that the rates be subsidized. Staff recommends ratepayers in the St. Louis District continue to assist with this district's high cost-of-service.

VI. Tariff Changes

The Company filed consolidated water tariffs, proposed consolidated miscellaneous water fees within the tariff, and proposed a low income customer charge. Presently, Staff is not opposed to the concept of MAWC consolidating the water tariffs and has not taken a position on the consolidated miscellaneous water tariff fees. Staff may discuss these proposed changes further in Rebuttal Testimony.

Generally, Staff is in favor of the concept of a low-income program such as the one that is being proposed by the Company. However, Staff believes that at this time, any changes to the Company's proposal is properly addressed in rebuttal testimony.

Staff Expert: James M. Russo

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 Services Provided in Missouri Service Areas	)))))	Case No. WR-2010-0131

AFFIDAVIT OF JAMES M. RUSSO

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

James M. Russo, of lawful age, on oath states: that he has participated in the preparation of the foregoing Staff Report in pages 1 to 10; 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 M. Russo

Subscribed and sworn to before me this 25th day of March, 2010.

SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086

Notary Public