

Exhibit No.:  
Issues: Revenue Lag Days Calculation, PSC  
Assessment  
Witness: Regina C. Tierney  
Exhibit Type: Surrebuttal  
Sponsoring Party: Missouri-American Water Company  
Case No.: WR-2010-0131  
SR-2010-0135  
Date: May 6, 2010

**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. WR-2010-0131  
CASE NO. SR-2010-0135**

**SURREBUTTAL TESTIMONY**

**OF**

**REGINA C. TIERNEY**

**ON BEHALF OF**


**MISSOURI-AMERICAN WATER COMPANY**

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

IN THE MATTER OF MISSOURI-AMERICAN ) WATER COMPANY FOR AUTHORITY TO ) FILE TARIFFS REFLECTING INCREASED ) RATES FOR WATER AND SEWER ) SERVICE )	CASE NO. WR-2010-0131 CASE NO. SR-2010-0135
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**AFFIDAVIT OF REGINA C. TIERNEY**

Regina C. Tierney, being first duly sworn, deposes and says that she is the witness who sponsors the accompanying testimony entitled "Surrebuttal Testimony of Regina C. Tierney"; that said testimony and schedules were prepared by her and/or under her direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, she would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of her knowledge.


  
\_\_\_\_\_  
Regina C. Tierney

State of Missouri

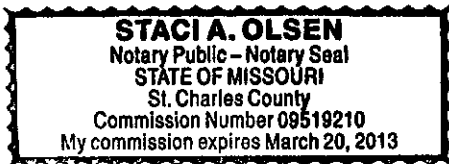
County of St. Louis

SUBSCRIBED and sworn to

Before me this 30~~th~~ day of April 2010.

  
\_\_\_\_\_  
Notary Public

My commission expires:



**SURREBUTTAL TESTIMONY  
OF  
REGINA C. TIERNEY  
MISSOURI-AMERICAN WATER COMPANY  
CASE NO. WR.2010.0131  
SR.2010.0135**

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1 **SURREBUTTAL TESTIMONY**

2  
3 **REGINA C. TIERNEY**

4  
5  
6 **I. WITNESS INTRODUCTION AND PURPOSE**

7  
8 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

9 A. My name is Regina C. Tierney and my business address is 727 Craig Road, St.  
10 Louis, Missouri 63141.

11  
12 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

13 A. I am employed by American Water Service Company, Inc. as a Financial Analyst II in  
14 Rates and Regulation.

15  
16 **Q. ARE YOU THE SAME REGINA TIERNEY WHO FILED DIRECT AND REBUTTAL**  
17 **TESTIMONY ON BEHALF OF MISSOURI-AMERICAN WATER COMPANY**  
18 **(“MAWC”) IN THIS PROCEEDING?**

19 A. Yes, I am.

20  
21 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

22 A. The purpose of my surrebuttal testimony is to discuss on behalf of MAWC:

- 23 1) Staff's current revenue lag days calculation; and,  
24 2) Staff's PSC Assessment position.

25  
26 **II. REVENUE LAG DAYS CALCULATION**

1 **Q. WHAT IS STAFF'S POSITION ON THE ST LOUIS METRO DISTRICT'S**  
2 **REVENUE LAG?**

3 A. Staff has used a weighted average for the revenue lag calculation that is based  
4 upon the percentage of revenues for the St Louis Metro District's monthly and  
5 quarterly billed customers to arrive at 37.43 Service Lag days and 64.20 total  
6 Revenue Lag days. This is reflected in the Rebuttal Testimony of Staff witness  
7 Jermaine Green.

8

9 **Q. PLEASE DEFINE SERVICE LAG DAYS.**

10 A. Service lag days are the average number of days between the time service is  
11 rendered and the meter is read.

12

13 **Q. DOES THE ST. LOUIS METRO DISTRICT HAVE ANY UNIQUE FEATURES**  
14 **THAT IMPACT THIS CALCULATION?**

15 A. Yes. The great majority of customers in the St. Louis Metro District are billed on  
16 a quarterly basis, or every ninety (90) days.

17

18 **Q. WHAT IMPACT DOES THIS HAVE ON THE SERVICE LAG DAY**  
19 **CALCULATION?**

20 A. MAWC reads meters on a billing cycle basis. That is, each route is read at  
21 approximately the same time in each billing period. Since most of our customers  
22 are billed quarterly, approximately 91 days exists in each billing period. The  
23 earliest that service could be provided in any billing period would be on day 1 and  
24 the latest date that service could be provided prior to reading meters would be on  
25 day 91. Therefore, the average service lag for the St. Louis metro district would

1 typically be 45.5 days. This is complicated somewhat by the fact that a few  
2 residential and many commercial and industrial customers are billed monthly,  
3 rather than quarterly. Therefore, the net service lag days for the St. Louis Metro  
4 District would be somewhat below 45.5 days.

5  
6 **Q. PLEASE DEFINE BILLING AND COLLECTION LAG DAYS.**

7 A. Billing lag days are the average number of days between the time the meter is  
8 read and the bill is issued. Depending upon weekends and holidays, this is  
9 typically five to six days. Collection lag days are the average number of days  
10 between the time a bill is rendered and when the Company receives payment.  
11 This number can vary a good deal from year to year because it is dependent  
12 upon many factors outside the control of the Company. Together, these three  
13 components comprise the total revenue lag.

14  
15 **Q. DO YOU AGREE WITH STAFF WITNESS GREEN'S POSITION CONCERNING**  
16 **THE ST. LOUIS METRO DISTRICT'S REVENUE LAG?**

17 A. No, I do not. Mr. Green's calculation, while closer to the lag proposed by MAWC  
18 than is reflected in his direct testimony, still does not accurately reflect the  
19 revenue lag that should be used in calculating the Cash Working Capital. Based  
20 upon the 64.20 day revenue lag calculated by Staff, there is still a discrepancy  
21 between Staff's and MAWC's Cash Working Capital calculation of \$2,027,584, of  
22 which \$1,733,791 is directly attributed to the St Louis Metro District Revenue  
23 Lag. Attached as Schedule RCT – 1 is a spreadsheet that explains the value of  
24 this issue. Determining the cause of this difference between the Company and

1 Staff requires further discussion of the three components of the St Louis Metro  
2 District's revenue lag.

3  
4 **Q. HAS THE STAFF CORRECTLY CALCULATED THE SERVICE LAG**  
5 **COMPONENT OF THE REVENUE LAG FOR THE ST. LOUIS METRO**  
6 **DISTRICT?**

7 A. No. The Staff calculated a Service Lag (the average number of days between  
8 meter readings and billing) of 37.43 days. This does not accurately represent the  
9 service lag days. Schedule RCT – 2 contains my calculation of this Service Lag.  
10 My Service Lag calculation is based on the number of routes read during the test  
11 year ending June 30, 2009. This focuses on reading routes and not the revenue  
12 generated from these reading routes. This method strips out the unnecessary  
13 factors and includes only the average of days between the readings.

14  
15 **Q. HOW DOES THIS DIFFER FROM THE STAFF'S CALCULATION?**

16 A. Staff's method uses a weighting based on revenue, an unnecessary factor in the  
17 Lag calculation. Revenue generated from the readings should not be included to  
18 determine the Lag days between readings, as the lag is only to determine the  
19 average of actual days between readings and should not be weighted.

20  
21 **Q. WHY IS YOUR METHOD MORE ACCURATE?**

22 A. Use of the lag weighted by the routes read provides a more accurate view of the  
23 average of actual days between the reading dates. By contrast, Staff's use of  
24 revenues in the weighting process assumes that the days between meter  
25 readings are directly related to the revenue earned from the readings.

1

2 **Q. WHY IS THIS ASSUMPTION ERRONEOUS?**

3 A. Each and every business day, meter readings are completed for quarterly as well  
4 as monthly customers in the St. Louis Metro District. Weighting based on the  
5 number of actual reads provides equal weight to each reading route and the  
6 calculated Service Lag for that route. Service Lag is determined by the number  
7 of days between readings, and has no correlation to the revenue collected per  
8 reading route. For example, to determine the average amount of time spent  
9 doing a task, you do not divide the amount of time weighted by the revenue  
10 earned doing the task. You divide the amount of time by the number of tasks.  
11 Weighting by the revenue earned is only valid when determining the cost verses  
12 the revenue earned in completing the task. Revenue earned should be a  
13 weighting factor in the determination of the collection lag only as the total annual  
14 revenue is one of the components in calculating that lag.

15

16 **Q. WHAT SERVICE LAG SHOULD BE USED FOR THE ST. LOUIS METRO**  
17 **DISTRICT?**

18 A. The Service Lag calculated by MAWC of 40.53 days should be used in  
19 calculating the necessary cash working capital. This lag verifies that the majority  
20 of routes read are for quarterly customers, as it is very close to half of an  
21 approximate 91 day period between read dates. The calculation of this amount  
22 is found in Schedule RCT – 2.

23

24 **Q. HOW DO YOU PROPOSE THAT THE BILLING COMPONENT OF THE**  
25 **REVENUE LAG BE CALCULATED?**



1 A. The Billing Lag, or the amount of days between read date and bill creation date,  
2 should also be based on the routes read during the test year.

3

4 **Q. HOW HAS STAFF CALCULATED ITS BILLING LAG?**

5 A. Staff has used only five summary lines of information that were provided in  
6 MAWC's calculation to determine their Billing Lag. There were over 1.7 Million  
7 lines of data available in MAWC's supplemental file that was too large to include  
8 the Cash Working Capital Lag support. The summary lines were included in  
9 MAWC's file to show a proper analysis has been performed. These summary  
10 lines should not be used to calculate the billing lag, because the sample size is  
11 not valid in comparison to the size of the population.

12

13 **Q. ARE THERE OTHER PROBLEMS WITH STAFF'S APPROACH?**

14 A. Yes. Staff's sample size is not only miniscule as compared to the 1.7 Million  
15 lines of data available, but it does not conform to various theories of statistical  
16 analysis sample size. A statement on the MAWC workpaper notes that the detail  
17 was not provided due to its voluminous size.

18

19 **Q. WHAT BILLING LAG DID MAWC CALCULATE?**

20 A. When using all lines of the available data, I calculated a Billing Lag of 5.83.  
21 Schedule RCT – 2 contains the calculation of this lag.

22

23 **Q. HAS THE STAFF MADE ANY ERRORS IN ITS CALCULATION OF THE**  
24 **COLLECTION COMPONENT OF THE REVENUE LAG?**

1 A. Yes. The Collection Days Lag should be calculated by dividing the actual  
2 Average Daily Balance of Accounts Receivable by Actual Revenues during the  
3 test period to arrive at the average number of days that bills are outstanding.  
4 Staff attempted to follow this approach, but erred by utilizing its Pro-forma  
5 Annualized Revenues in the calculation of Collection Days Lag. This is not  
6 consistent with Staff's use of the actual Average Daily Balance of Accounts  
7 Receivable.

8  
9 **Q. WHY IS THIS SIGNIFICANT?**

10 A. Properly calculating the collection lag by comparing the actual Average Daily  
11 Balance in Accounts Receivable to the actual Annual Revenues over the same  
12 period of time uses two amounts that have a direct relationship with each other.  
13 Staff's calculation, on the other hand, uses an actual amount of accounts  
14 receivable outstanding compared to an estimate for the Annual Revenue that has  
15 no relationship to the Accounts Receivable balance. If Staff is to utilize a higher  
16 estimated Pro-forma Annual Revenue, they should also reflect a corresponding  
17 higher Accounts Receivable balance. Staff's calculation does not take this into  
18 account.

19  
20 **Q. WHAT COLLECTION LAG HAVE YOU CALCULATED?**

21 A. The Collection Lag I have calculated is 24.04 days (See Schedule RCT – 2).

22  
23 **Q. IS THE COLLECTION LAG DISAGREEMENT LIMITED TO THE ST. LOUIS**  
24 **METRO DISTRICT?**

1 A. No. Staff has used this same method in the Collection Days Lag calculation for  
2 all districts.

3  
4 **Q. WHAT SHOULD THE COMMISSION FIND IN REGARD TO THE COLLECTION**  
5 **LAG?**

6 A. The Collection Lag should be calculated in a manner consistent with the  
7 Company's approach, utilizing the Annual Revenue for the test year and not an  
8 estimated annualized amount. Schedule RCT – 3 contains a reconciliation  
9 between Staff's and Company's Collection lag for all of the districts.

10  
11 **Q. PLEASE SUMMARIZE THE COMPANY'S POSITION IN REGARD TO THE**  
12 **REVENUE LAG DAYS.**

13 A. In summary, the Revenue Lag for St Louis Metro District should be the  
14 combination of the Service Lag (40.53), the Billing Lag (5.83) and Collection Lag  
15 (24.04) which totals 70.39 Revenue Lag Days (See Schedule RCT – 2).  
16 Schedule RCT – 3 shows the Total Revenue Lag Days requested for the other  
17 Districts. This schedule summarizes the Collection Lag variance that is the  
18 majority of the difference between Staff's and Company's Revenue Lag Days.

19  
20 **III. PSC ASSESSMENT**

21  
22 **Q. WHAT IS STAFF'S POSITION AS TO THE PSC ASSESSMENT?**

23 A. The Rebuttal Testimony of Staff witness Jermaine Green, page 5, line 13, states  
24 that "Staff believes there is no exact correlation between revenues and the PSC  
25 Assessment. The calculation of the PSC Assessment for each utility is

1 determined by many factors other than just revenues.” Mr. Green further states  
2 that costs “are re-allocated to the industries based on the percentage of  
3 revenues collected by each industry”.

4  
5 **Q. DO YOU AGREE WITH THIS STATEMENT?**

6 A. No. While, his statement is technically correct, it is not complete. It is true that in  
7 addition to revenues other factors are also used in determining the PSC annual  
8 expense amount. However, the only determinant in the final allocation factor is  
9 the percentage of revenues collected by each company within each industry  
10 group.

11  
12 **Q. WHAT FACTORS ARE USED IN THE CALCULATION OF THE**  
13 **ASSESSMENT?**

14 A. The first component of the annual assessment amount is the estimate of the  
15 expenses directly attributable to regulation of the six public utility groups. The  
16 second component is any reimbursements and unexpended balance in the fund  
17 at June 30<sup>th</sup> netted against the expense estimate. The unexpended balance in  
18 the fund is also allocated based on the same percentage as the annual  
19 attributable expense allocation. The amount allotted to each industry group is  
20 allocated to the companies within that group. Any common costs not easily  
21 attributable to a specific utility group are allocated based on the percentage of  
22 each company’s gross intrastate operating revenue compared to the total gross  
23 intrastate operating revenue for that group. In summary, the determination of the  
24 allocation is based upon revenue percentage of the entire utility group.

1 **Q. WHEN WILL THE NEXT FISCAL YEAR ASSESSMENT ORDER BE ISSUED**  
2 **BY THE COMMISSION?**

3 A. It is the Company's understanding that the 2011 fiscal year assessment, the  
4 assessment that MAWC will actually begin paying effective July 1, 2010, will be  
5 available near the end of June of this year. That is almost three months prior to  
6 the operation of law date in this case.

7

8 **Q. WHAT IS MAWC'S PREFERENCE AS TO THIS ISSUE?**

9 A. MAWC's preference would be to utilize the actual assessment amount as  
10 ordered by the Commission in June of this year. However, if this is not possible,  
11 a reasonable approximation of this amount should be used in calculating the  
12 revenue requirement.

13

14 **Q. IF THE ASSESSMENT HAS NOT BEEN ISSUED, IS IT A KNOWN AND**  
15 **MEASUREABLE EXPENSE THAT IS PROPER FOR INCLUSION IN THIS**  
16 **CASE?**

17 A. Yes. It is indisputable that the Commission will require funding in fiscal year  
18 2011 and that the funding will come from assessments of the regulated utilities in  
19 the state. The amount is also measureable through reasonable estimation. The  
20 Staff has estimated many of the expense items included in the revenue  
21 requirements of this case, using historical averages or estimates of expense  
22 levels that will be in effect at the time new rates go into effect. It is also  
23 appropriate to use a proxy based on reasonable estimates of PSC assessments  
24 that will be in place at the time new rates become effective. Based on the  
25 increase in revenues and the level of Commission expenditures associated with

1 regulated water companies' activities, it is reasonable to project an increase in  
2 assessments assigned to MAWC.

3  
4 **Q. WHY DO YOU BELIEVE MAWC'S ASSESSMENT WILL INCREASE OVER**  
5 **THE AMOUNT CURRENTLY CHARGED?**

6 A. MAWC's contributions pay for approximately 9% of the total PSC 2010 fiscal year  
7 expenses attributable to all utility groups, 94% of the Water group expenses and  
8 8% of the Sewer group expenses. Since MAWC contributions fund 94% of the  
9 Water group expenses, MAWC activities in this rate case have an overwhelming  
10 influence on the estimate for the 2011 fiscal year. MAWC believes the  
11 Commission and its Staff have worked many hours on this rate case, which will  
12 be utilized in determining the estimate of the future PSC Assessment hours. Mr.  
13 Green has also stated on page 6 of his rebuttal testimony that if the Staff incurs  
14 more hours in one industry group, the PSC Assessment could decrease in  
15 another industry group. MAWC does not believe that it would be reasonable to  
16 assume a decrease in the water industry group as there is a current rate case for  
17 MAWC in the Water industry group, and in the prior fiscal year there was not.  
18 The additional hours worked on the 2010 rate case would increase the future  
19 expense amount for MAWC over the amount currently charged to MAWC.  
20 Allowing for recovery to reflect increased water revenues would properly reflect  
21 the probable increase in the 2011 Fiscal Year Assessment Order.

22  
23 **Q. WHAT AMOUNT DO YOU PROPOSE TO USE AS THE PSC ASSESSMENT**  
24 **EXPENSE AMOUNT?**

1 A. MAWC continues to believe that its proposed PSC Assessment of \$1,869,759 is  
2 appropriate. MAWC would also support using the amount from the Assessment  
3 Order for Fiscal Year 2011. Although this amount will not be available by the  
4 true-up date of April 30, 2010, the actual assessment will be issued near the end  
5 of June 2010. Utilization of the actual assessment would eliminate any  
6 estimation uncertainties and would be fair to all parties.

7

8 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

9 A. Yes, it does.