

*Exhibit No.:*

*Issues: Normalization of  
Uncollectibles Expense,  
Factor-Up for Proposed  
Increase in Revenues*

*Witness: Erin M. Carle*

*Sponsoring Party: MoPSC Staff*

*Type of Exhibit: Rebuttal Testimony*

*Case No.: WR-2015-0301*

*Date Testimony Prepared: February 11, 2016*

**MISSOURI PUBLIC SERVICE COMMISSION**

**COMMISSION STAFF DIVISION**

**AUDITING**

**REBUTTAL TESTIMONY**

**OF**

**ERIN M. CARLE**

**MISSOURI-AMERICAN WATER COMPANY**

**CASE NO. WR-2015-0301**

*Jefferson City, Missouri*

*February, 2016*

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**TABLE OF CONTENTS OF  
REBUTTAL TESTIMONY**

**OF**

**ERIN M. CARLE**

**MISSOURI-AMERICAN WATER COMPANY**

**CASE NO. WR-2015-0301**

EXPLANATION OF STAFF CORRECTIONS ..... 2

UNCOLLECTIBLES EXPENSE NORMALIZATION ..... 3

UNCOLLECTIBLES INCOME TAX FACTOR UP ADJUSTMENT TO ADDRESS  
MAWC’S PROPOSED INCREASE IN REVENUES TO BE COLLECTED ..... 7

1 **REBUTTAL TESTIMONY**

2 **OF**

3 **ERIN M. CARLE**

4 **MISSOURI-AMERICAN WATER COMPANY**

5 **CASE NO. WR-2015-0301**

6 Q. Please state your name and business address.

7 A. Erin M. Carle, 111 N. 7<sup>th</sup> Street, Suite 105, St. Louis, MO 63101.

8 Q. By whom are you employed and in what capacity?

9 A. I am employed by the Missouri Public Service Commission (“Commission”) as a  
10 Utility Regulatory Auditor III with the Commission Staff Division in the Auditing Department.

11 Q Are you the same Erin M. Carle who contributed to the Missouri Public Service  
12 Commission Staff’s (“Staff”) Revenue Requirement Cost of Service Report (“Staff Report”)?

13 A. Yes, I am.

14 Q. What is the purpose of your rebuttal testimony in this proceeding?

15 A. My rebuttal testimony will address Missouri-American Water Company’s  
16 (MAWC) proposed adjustments to uncollectible expense as sponsored by MAWC witness  
17 Jeanne M. Tinsley. I will address two separate proposed adjustments sponsored by MAWC  
18 witness Tinsley in MAWC’s attempt to address uncollectibles expense in the overall cost of  
19 service calculation. I will also address differing test year levels of uncollectibles expense that  
20 MAWC has provided to Staff in two separate documents as well as a correction to Staff’s  
21 calculation of the normalized level for uncollectibles expense.

22 The first uncollectibles adjustment I will address is MAWC witness Tinsley’s proposed  
23 normalization adjustment for uncollectibles expense. Next, I will address MAWC’s proposed

1 inclusion of an uncollectibles component in MAWC's income tax factor-up calculation, also  
2 referred to as the "revenue conversion factor." By including an uncollectibles component in its  
3 income tax factor-up calculation, MAWC effectively assumes that MAWC will automatically  
4 incur a proportionately greater amount of this expense in connection with its proposed increase  
5 in revenue resulting from this case. MAWC calculated this uncollectibles tax factor-up  
6 separately from its proposed adjustment to normalize uncollectibles and did not separately  
7 account for it in MAWC's income statement adjustment summary. Staff opposes this proposed  
8 increase to uncollectibles expense recovery since there is not a demonstrated correlation between  
9 actual net write-offs and the amount of revenue that is billed.

10 **EXPLANATION OF STAFF CORRECTIONS**

11 Q. How did Staff determine the test year level of uncollectibles expense?  
12

13 A. MAWC workpapers supporting its direct filing reflect a total company test year  
14 level of actual net write-offs of \$4,594,660. However, I was unable to verify this test year  
15 amount in the general ledgers supplied by MAWC. Instead, for Staff's direct filing, I relied upon  
16 MAWC's response to Staff Data Request (DR) No. 0070, but I inadvertently used the total actual  
17 write-off level of \$4,913,435 rather than the actual net write-off level of \$4,485,932 to determine  
18 the test year uncollectibles expense level. In my workpapers I developed the adjustments based  
19 upon the \$4.9 million level of total net write-offs. However, the test year level that was reflected  
20 in Staff's accounting schedules, filed with direct testimony, matched MAWC's test year level of  
21 \$4,594,660. As a result, my adjustments, when posted to Staff's accounting schedules  
22 incorrectly reflected a normalized adjusted level of approximately \$3.3 million instead of  
23 approximately \$3.6 million as the level Staff actually supports.

1 Total write-offs do not reflect the netting of any recoveries that MAWC was able to  
2 collect subsequent to write-offs. The appropriate level to analyze and potentially adjust is the  
3 actual net write-offs amount, which reflect the netting of all bad debt recoveries. Per a  
4 conversation with MAWC on February 4, 2015, MAWC indicated to Staff that there was a  
5 mistake in the Company's filed test year level for uncollectibles expense as well. Staff and  
6 MAWC both agree now that the test year level of uncollectibles should be \$4,485,932. Later in  
7 this testimony, during the explanation of Staff's uncollectibles expense adjustment, the  
8 correction and change to both MAWC and Staff's adjustments to normalize uncollectibles will  
9 also be explained. This correction for test year will be reflected in Staff's uncollectibles expense  
10 adjustments and in the true-up accounting schedules that will be filed with Staff's surrebuttal  
11 testimony on March 4, 2016. By correcting the test year value in Staff's adjustment as filed in  
12 direct testimony, Staff's total company revenue requirement will not change since the  
13 normalized level of uncollectibles expense is based off of a historical average of net charge-offs,  
14 the new test year level will not change the normalized level of uncollectibles expense and is  
15 ultimately reflected in the cost of service calculation. However, at the time of this rebuttal  
16 testimony filing, Staff has increased the cost of service calculation by \$318,775 in order to  
17 correct the error that occurred when Staff posted the adjustments that resulted in a \$3.3 million  
18 normalized level instead of a \$3.6 million normalized level. Staff will continue to analyze actual  
19 net write-offs through the end of the January 31, 2016, true-up audit and may perform additional  
20 adjustments for this area, which would be explained in detail in Staff's surrebuttal testimony.

21 **UNCOLLECTIBLES EXPENSE NORMALIZATION**

22 Q. How did MAWC witness Tinsley adjust uncollectibles expense as part of  
23 MAWC's direct filed case?

1           A.     MAWC took the sum of three years of net charge-offs, for the period covering  
2 January 1, 2012, through December 31, 2014, and divided that amount by the sum of three years  
3 of billed revenues, for that same period, by district. This calculation provided the three-year  
4 average charge-off percentage. MAWC then applied this percentage to its test year level of  
5 billed revenues, assuming the current tariffed rates, for each district. The product of this  
6 calculation is MAWC's proposed normalized level of uncollectibles, by district, that MAWC  
7 estimates it will experience, with the assumption it receives the full amount of the rate increase  
8 requested. The following chart summarizes the total company adjustment for uncollectible  
9 expense that MAWC proposed in its direct filing on a total company basis:

10           MAWC Three Year Write-Offs to Revenues Ratio Normalization	\$2,941,446
11           MAWC Test Year per Workpaper	<u>\$4,594,660</u>
12           MAWC Adjustment	(\$1,653,214)

13           Q.     Please summarize MAWC's adjustment based upon the corrected test year level.

14           A.     The following chart summarizes the MAWC total company adjustment based  
15 upon the corrected test year:

16           MAWC Three Year Write-Offs to Revenues Normalization	\$2,941,446
17           MAWC Test Year per Workpaper	<u>\$4,485,932</u>
18           MAWC Adjustment	(\$1,544,486)

19           Q.     How did Staff normalize uncollectibles expense?

20           A.     If possible, Staff normalized uncollectibles expense using a three-year average of  
21 actual net write-offs for the period covering October 1, 2012, through September 30, 2015. If a  
22 particular district did not have a three-year history of actual net write-offs, Staff used a shorter

1 period of history to normalize uncollectibles expense for that particular district. Staff intends  
2 to examine updated actual net write-off amounts through January 31, 2016, as part of its  
3 true-up audit.

4 Q. Please quantify Staff's normalized level of uncollectibles expense on a total  
5 company basis and quantify the change in the adjustment amount based upon the test year  
6 correction as well as the error that occurred in reflecting Staff's adjustments at the time of its  
7 direct testimony filing.

8 A. Based on Staff's normalization method described above, the charts below  
9 summarize Staff's normalized level for uncollectibles expense and Staff's overall adjustment at  
10 direct filing and as corrected for the test year difference and to reflect the \$3.6 million  
11 normalized level that Staff continues to support. Staff will examine all actual net write-offs  
12 through January 31, 2016, in order to determine whether additional adjustment to Staff's  
13 proposed normalized level is necessary:

14 **Staff Uncollectibles Expense Adjustment at Direct Filing Staff Workpaper**

15 Staff Three Year Normalized Level 9/30/15	\$3,622,568
16 Staff Test Year per DR No. 0070	<u>\$4,913,435</u>
17 Staff Adjustment	(\$1,290,867)

18 **Staff Uncollectible Expense Adjustment as Reflected in Staff's Accounting**  
19 **Schedules at Direct Filing**

20 Staff Test Year Level in Accounting Schedules	\$4,594,660
21 Staff Adjustments that Were Posted	<u>\$1,290,867</u>
22 Staff Normalized Level in Accounting Schedules	\$3,303,793

**Staff Uncollectibles Expense Adjustment after Test Year Correction**

Staff Three Year Normalized Level 9/30/15	\$3,622,568
Staff Test Year per DR No. 0070	<u>\$4,485,932</u>
Staff Adjustment	(\$863,365)

Q. Why is Staff's method to normalize uncollectibles more appropriate than the method used by MAWC?

A. Staff's method is more appropriate because it uses more current data than the calculation performed by MAWC. In addition, Staff's normalization method also uses the actual level of net-write-offs over a period of time to determine the normalized level of uncollectibles expense. MAWC's method of calculating a three-year average ratio of actual net write-offs to actual billed revenues and then applying this ratio to test year billed revenues erroneously emphasizes MAWC's assumption that actual net write-offs are always directly correlated with billed revenues. In addition, MAWC's calculation of the ratio between actual net write-offs and actual billed revenues is not synchronized with their policy of writing off uncollectibles starting at 110 days following actual billing. MAWC's ratio is determined by comparing actual net-write-offs in the same month as actual billed revenues. This is an incorrect comparison since the actual net write-offs in any given month actually relate in some part to the revenues billed at least 110 days earlier. Furthermore, there are many other factors that can affect the level of actual net-write-offs in addition to the level of billed revenues, which Staff will explain in detail in the next section of this rebuttal testimony.



**1 UNCOLLECTIBLES INCOME TAX FACTOR UP ADJUSTMENT TO ADDRESS**  
**2 MAWC'S PROPOSED INCREASE IN REVENUES TO BE COLLECTED**

3 Q. Please quantify the revenue requirement impact of the separate income tax  
4 factor-up adjustment for uncollectibles that MAWC proposes to include in rates.

5 A. MAWC proposes to include approximately \$573,096 for uncollectibles expense  
6 through application of its income tax factor-up calculation that represents an estimate of the  
7 amount of additional uncollectibles expense that MAWC assumes it will begin to incur following  
8 the implementation of rates that would include the full amount of the rate increase that MAWC is  
9 seeking in this case. This MAWC proposed adjustment is separate from the MAWC proposed  
10 normalization adjustment described earlier in this rebuttal testimony. Staff disagrees with this  
11 adjustment and has included no amount for uncollectibles expense in connection to any increased  
12 level of revenues that MAWC may collect as a result of this case.

13 Q. Assuming that MAWC's hypothesis that increased levels of billed revenues  
14 automatically result in increased levels of uncollectibles expense is correct, when would MAWC  
15 first begin to experience a change in uncollectibles expense?

16 A. The operation-of-law date for this rate case is June 28, 2016. Current MAWC  
17 policy dictates that it cannot write-off an uncollectible amount until at least 110 days after the  
18 billing date. Under MAWC's assumptions, with which Staff does not agree, MAWC would not  
19 even begin to experience this increased uncollectibles expense until after October 17, 2016, or  
20 110 days following the effective date of rates in this rate case. These dates assume that a billing  
21 cycle would end on the day after the rate increase was enacted and that MAWC would prorate all  
22 bills. If MAWC did not prorate the impact of the rate increase, this assumed impact would be  
23 delayed until such time that MAWC completed its first billing cycle, subsequent to any rate

1 increase granted by the Commission. MAWC's calculation also assumes MAWC will ultimately  
2 receive the full amount of its requested rate increase in this case.

3 Q. Where did MAWC include this \$573,096 amount in their cost of service  
4 calculation?

5 A. Ms. Tinsley's second proposed adjustment for uncollectibles cannot be found  
6 in the summary of adjustments to the income statement nor is the calculation described in  
7 any significant detail in her direct testimony. Instead, MAWC includes an additional  
8 component to the income tax factor-up calculation. The income tax factor-up calculation is  
9 normally applied to the overall revenue deficiency to appropriately factor up the cost of service  
10 calculation for additional federal and state income taxes that will result from additional  
11 anticipated revenues that would be collected as a result of the Commission's ruling on the  
12 proposed rate increase request. The appropriate stand-alone MAWC income tax factor-up to be  
13 applied to the overall revenue deficiency should be approximately 1.6231, as calculated by the  
14 traditional formula of  $1 / (1 \text{ minus the effective tax rate})$ . MAWC's overall effective tax rate is  
15 currently 38.3886%, as calculated by Staff. Staff witness Kofi A. Boateng sponsored  
16 Staff's calculation of the effective tax rate as well as the tax factor-up calculation to be applied to  
17 the overall revenue deficiency where applicable and addresses this calculation in his  
18 rebuttal testimony.

19 MAWC's calculation of the income tax factor-up includes an additional uncollectibles  
20 component that results in an approximate 1.6415 overall income tax factor-up percentage that  
21 MAWC applied to its calculated revenue deficiency. The approximate 0.0184 rounded  
22 percentage (derived by subtracting Staff's income tax factor-up calculation of 1.6231 from  
23 MAWC's proposed income tax factor-up calculation 1.6415) attributable to the uncollectibles

1 component was applied by MAWC to its proposed operating revenue deficiency amount of  
2 \$31,086,189. This approach results in MAWC's proposal to include an additional \$573,096 for  
3 estimated uncollectibles expense. At the earliest, MAWC assumes this expense will begin to  
4 occur approximately 110 days following the effective date of rates in this rate case, assuming it  
5 receives the full amount of the overall requested rate increase.

6 Q. Did Staff include any additional amount in its cost of service calculation for  
7 additional uncollectibles that might result from any amount of rate increase ultimately ordered by  
8 this Commission?

9 A. No.

10 Q. Does Staff agree that the actual level of net write-offs directly correlates to the  
11 level of revenues that MAWC collects as MAWC witness Tinsley's uncollectibles factor-up  
12 adjustment suggests?

13 A. No. Many other factors can affect the level of uncollectibles that a Company  
14 incurs. The state of the economy, the geographical location of the utility and its customers, the  
15 impacts of weather, the existence of low-income assistance programs and the nature of a utility's  
16 customer service policies, such as those regarding customer payment arrangements and use of  
17 debt collection agencies, are a few examples of factors that typically effect the level of  
18 uncollectibles expense. Any combination of the above listed factors can affect the level of  
19 uncollectibles expense that a Company may incur; there is no direct correlation that  
20 uncollectibles will increase as the level of revenues increases.

21 Q. Has Staff compared a history of MAWC billed revenues to the actual amount of  
22 net write-offs recorded by MAWC?

1           A.     Yes, please refer to the chart below that MAWC provided in response to the  
2 Department of Energy's DR No. 1-220. It shows a total company ten-year history of  
3 uncollectibles, customer numbers, water volumetric sales and total operating revenues, by year.  
4 During this time, MAWC has filed four water rate cases, Case No. WR-2007-0216, Case No.  
5 WR-2008-0311, Case No. WR-2011-0337, and the present case. Each of these cases also  
6 involved sewer rate increase requests as well. According to the philosophy behind MAWC's  
7 proposed adjustments, where revenues are increasing, uncollectibles should be increasing as  
8 well. However, the chart it supplied clearly shows differently. The increased rates for the WR-  
9 2007-0216 case went into effect on December 1, 2007, yet the level of uncollectibles in 2008  
10 were lower than in 2005 and 2006, despite the lower level of operating revenues prior to the  
11 2007 rate increase. The same can be said for the WR-2008-0311 rate case. The increased rates  
12 became effective in that case on November 28, 2008. The level of uncollectibles in 2009, 2010,  
13 2011 and 2012 were all lower than the level of uncollectibles in 2006. The level of  
14 uncollectibles in 2006 is before two rate cases but shows substantially lower levels of operating  
15 revenues.

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22 *continued on next page*

	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>
Uncollectible Expense	1,963,989	2,345,816	1,279,669	1,600,941	2,179,678
Customer Count @ 12/31	418,977	424,185	425,081	418,604	419,010
Water Volumetric Sales	67,253,448	72,180,104	68,764,885	60,992,457	58,145,236
Total Operating Revenues	164,047,256	170,853,331	179,899,724	181,050,984	203,781,530
	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Uncollectible Expense	2,288,961	2,113,584	2,334,542	3,504,740	4,594,659
Customer Count @ 12/31	418,855	420,796	422,518	427,639	427,791
Water Volumetric Sales	60,275,921	61,314,203	64,866,438	58,124,578	56,927,629
Total Operating Revenues	224,608,250	243,139,805	279,467,684	264,778,072	270,159,539

2

3 This chart clearly demonstrates that factors other than the amount of billed revenues can  
4 more than outweigh the impact of billed revenues alone on the level of uncollectible expense that  
5 MAWC may experience.

6 Q. Per this analysis, is there a direct correlation between the level of billed revenues  
7 and the level of uncollectibles that the Company has had to write-off?

8 A. No. Per this analysis, it is clear that the level of uncollectibles is not solely or  
9 even primarily based on the level of operating revenues that the Company is receiving.  
10 Therefore, the Commission should not apply an adjustment to uncollectibles based on the  
11 assumption that some correlation between the two factors exists.

12 Q. Does Staff have any other concerns with MAWC's proposed inclusion of  
13 additional uncollectible expense to address its proposed increase in revenues?

Rebuttal Testimony of  
Erin M. Carle

1           A.     Yes. MAWC bases its proposed recovery amount upon the assumption that it will  
2 receive the entire amount of additional revenues it is requesting. The Staff does not recommend  
3 Commission acceptance of MAWC's proposed factoring-up of uncollectibles, but if the  
4 Commission does accept this concept, the calculation would need to be modified to reflect the  
5 actual Commission ordered increase in operating revenues.

6           Q.     Does this conclude your rebuttal testimony?

7           A.     Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water )  
Company's Request for Authority to Implement ) Case No. WR-2015-0301  
a General Rate Increase for Water and Sewer )  
Service Provided in Missouri Service Areas )

**AFFIDAVIT OF ERIN M. CARLE**

STATE OF MISSOURI )  
 ) ss.  
COUNTY OF ST. LOUIS )

COMES NOW ERIN M. CARLE and on her oath declares that she is of sound mind and lawful age; that she contributed to the foregoing REBUTTAL TESTIMONY; and that the same is true and correct according to her best knowledge and belief.

Further the Affiant sayeth not.

Erin M. Carle  
ERIN M. CARLE

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the <sup>City</sup> County of St. Louis, State of Missouri, at my office in St. Louis, on this 10<sup>th</sup> day of February, 2016.

[Signature]  
Notary Public

