

Exhibit No.: \_\_\_\_\_  
Issues: Cost Allocation/Rate Design  
Witness: Paul R. Herbert  
Exhibit Type: Rebuttal  
Sponsoring Party: Missouri-American Water Company  
Case No.: WR-2011-0337  
Date: January 19, 2012

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2011-0337

REBUTTAL TESTIMONY

OF

PAUL R. HERBERT

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

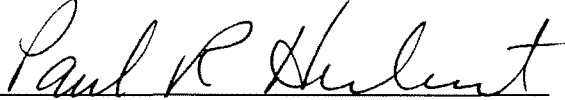
JEFFERSON CITY, MISSOURI

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 )	CASE NO. WR-2011-0337
RATES FOR WATER AND SEWER )	CASE NO. SR-2011-0338
SERVICE )	

AFFIDAVIT OF PAUL R. HERBERT

Paul R. Herbert, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony of Paul R. Herbert"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquires were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge.

  
Paul R. Herbert

Commonwealth of Pennsylvania  
County of Cumberland  
SUBSCRIBED and sworn to  
Before me this 16th day of January 2012.

  
Notary Public

My commission expires: February 20, 2015

COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Chery Ann Rutter, Notary Public  
East Pennsboro Twp., Cumberland County  
My Commission Expires Feb. 20, 2015  
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

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1 **WITNESS INTRODUCTION**

2  
3 **1. Q. Please state your name and address.**

4 A. My name is Paul R. Herbert. My business address is 207 Senate Avenue,  
5 Camp Hill, Pennsylvania.

6 **2. Q. By whom are you employed?**

7 A. I am employed by Gannett Fleming, Inc. as President of the Valuation and  
8 Rate division.

9 **3. Q. Are you the same Paul Herbert that submitted direct testimony in this**  
10 **proceeding?**

11 A. Yes, I am. My direct testimony and exhibits were submitted with the  
12 Company's filing on June 30, 2011.

13 **4. Q. What is the purpose of your rebuttal testimony in this proceeding?**

14 A. The purpose of my rebuttal testimony is to address the cost of service  
15 allocation and rate design issues presented in the testimonies of Staff  
16 witnesses James Russo and James Busch, Office of Public Counsel (OPC)  
17 witness Barbara Meisenheimer, MIEC witness Michael Gorman and AGP  
18 witness Donald Johnstone.

19 **5. Q. How have you structured your rebuttal testimony?**

20 A. First, I will discuss and explain key differences between the cost allocation  
21 studies I prepared and those of Staff and Public Counsel. Then I will address  
22 the rate design issues proposed by Staff, MIEC and AGP.  
23

24

25

1                                   **REBUTTAL OF COST OF SERVICE ISSUES**

2   **6. Q. Please discuss the similarities and differences among the cost of**  
3           **service studies prepared by you and the studies submitted by Mr.**  
4           **Russo of the Staff and Ms. Meisenheimer of the OPC.**

5   A. The similarities include the use of the base-extra capacity method of cost  
6       allocation. The differences are numerous – some significant, many others not  
7       so significant. I will try to focus on the significant differences.

8   **7. Q. Please continue.**

9   A. The major differences include:

- 10           • The use of a much lower revenue requirement by Staff – a total of  
11           \$11.5 million increase as opposed to the Company’s \$42.9 million  
12           increase. OPC bases its study on a revenue requirement equal to  
13           existing rate levels.
- 14           • Differences in the aggregation of costs into regional groups or  
15           districts rather than state-wide single tariff pricing.
- 16           • Differences in the distribution of the revenue requirements to the  
17           various districts or regions.
- 18           • Differences in the billing determinants in some districts used for  
19           allocation purposes as a result of differences in projected revenues.
- 20           • Differences in the allocation of certain costs.
- 21           • Differences in the use of certain peak factors.

22           The issues dealing with revenue requirements, the distribution of revenue  
23       requirements to the regions/districts and the proper level of billing

1 determinants will be addressed in other Company rebuttal testimony.

2 **8. Q. Please address some of the specific allocation differences in Staff's**  
3 **study.**

4 A. Comparing results of the studies submitted in this case is difficult due to the  
5 differences in the revenue requirements and billing determinants mentioned  
6 above. Generally, the Staff's allocation results are similar to the results of the  
7 Company's study on a percentage basis. Staff's District 1 study improperly  
8 allocated call center costs as I will explain later. Staff's study also allocates  
9 less costs to private fire protection than the Company's study primarily due to  
10 lower customer related costs. Staff has accepted the small mains adjustment  
11 used by the Company in past cases as well as this case. This has mitigated  
12 some of the differences that occurred in previous cases.

13 **9. Q. Please address some of the specific allocation differences in OPC's**  
14 **study.**

15 A. Again, as mentioned earlier, OPC uses revenue requirements under present  
16 rates with no increase for the cost allocation. Under a percentage  
17 comparison, OPC generally allocates less cost to residential customers and  
18 more cost to commercial, industrial and public classes. One reason for this  
19 difference is due to the allocation of small mains.

20 **10. Q. Please address the allocation of distribution mains.**

21 A. One specific difference that affected the results of the OPC study is the  
22 employment by OPC witness Ms. Meisenheimer of a modified small mains  
23 adjustment, but not to the extent reflected in the Company's study. My study



1 reflects that many of the large users, including sales for resale, in those  
2 districts are served primarily from large transmission mains (generally larger  
3 than 10-inch) and thus, large users do not benefit from the smaller mains in  
4 the distribution system. A more detailed explanation of my small mains  
5 adjustment is provided in my direct testimony.

6 **11. Q. Why is a small mains adjustment appropriate?**

7 A. Generally, water flows from treatment facilities in large mains often referred to  
8 as transmission mains. The primary purpose of transmission mains is to  
9 transfer water from the treatment facilities to the distribution system and costs  
10 associated with transmission mains are allocated on a maximum day basis.  
11 The distribution system consists of many miles of smaller mains which deliver  
12 water to customers' service lines and are designed to meet maximum hour  
13 demands. In larger systems, large users such as industrial and sales for  
14 resale customers are located on transmission mains and take water before it  
15 reaches the distribution system. My study recognizes this fact and excludes  
16 certain large users from the allocation of costs associated with small mains.

17 **12. Q. What is the effect of OPC using only a modified small mains adjustment  
18 for certain industrial customers?**

19 A. By not using a small mains adjustment in the same manner as the Company,  
20 OPC's cost allocations result in higher costs being allocated to industrial  
21 customers in the St. Louis Metro and St. Joseph Districts. This could have an  
22 adverse impact on industry and could make it more difficult for the Company  
23 to meet competitive pressures.

1 **13. Q. What are your conclusions with regard to the cost of service studies**  
2 **submitted in this case?**

3 A. Each of the witnesses supports the use of the base-extra capacity method.  
4 However, only the Company's study has applied the principles consistent with  
5 proper rate making and reflects the proper allocation of small mains, the  
6 operation and maintenance expenses for mains, and the costs associated  
7 with fire demands and peak demands. It is important that the Company's  
8 study is used for the purposes of designing rates in this case to ensure an  
9 appropriate allocation of costs to the various customer classes and proper  
10 revenue distribution among the classes.

11

12 **REBUTTAL CONCERNING RATE DESIGN ISSUES**

13 **14. Q. Please outline the rate design issues you will address.**

14 A. I will address customer charges, the rate design proposed by Mr. Busch and  
15 certain rate design issues presented by Mr. Johnstone.

16 **15. Q. What did the Company propose for customer charges?**

17 A. Under consolidated tariff pricing (CTP), the Company proposed uniform  
18 customer charges applicable to all service areas, based on the customer  
19 costs properly allocated from the state-wide cost of service. The customer  
20 costs include the operation and maintenance costs associated with meters  
21 and services, the depreciation, return and taxes on meters and services,  
22 billing and collecting costs including meter reading, and the reallocated costs  
23 of public fire service which are not recovered through hydrant charges.

1 Customer costs also include a portion of administrative and general costs  
2 allocated to the customer cost components as explained and supported in the  
3 AWWA Manual M1.

4 **16. Q. Why are public fire service costs included in customer costs?**

5 A. Public fire service costs are included in customer costs because there are no  
6 public fire hydrant charges, therefore public fire costs must be recovered from  
7 the other customer classifications. In my study, the costs of public fire service  
8 are reallocated to the other customer classes based on meter equivalents.  
9 This is to recognize that costs associated with providing fire service are  
10 almost entirely fixed and that fire costs vary with the number and relative size  
11 of the customers. Since these fire costs are fixed costs which do not vary  
12 with usage, it is appropriate to recover such costs in fixed charges rather than  
13 volumetric charges.

14 **17. Q. Please describe the costs that are included in public fire service.**

15 A. Public fire service costs include the investment (depreciation, return and  
16 taxes) in the extra capacity to meet fire demands for mains, pumps and  
17 storage facilities as well as the investment in public fire hydrants. Only a very  
18 small portion of the costs are related to actual water usage because the  
19 usage related to putting out fires is very small compared to the usage of all  
20 other classes. Since public fire costs are fixed costs, they are appropriately  
21 recovered in fixed charges or customer charges.

22 **18. Q. Did you prepare a schedule that shows the customer costs that support**  
23 **the customer charges proposed in this case?**

1 A. Yes. Schedule F on page II-37 of the Exhibit attached to my direct testimony  
2 shows the state-wide customer costs by component and computes the  
3 appropriate cost for a 5/8-inch meter which is typical for residential and small  
4 commercial usage. The components of customer charges include costs  
5 associated with meters, service lines, customer billing and accounting  
6 (including meter reading), and unrecovered public fire costs discussed earlier.  
7 The schedule shows that the customer costs for a 5/8-inch customer are  
8 \$17.22 per month and \$30.60 for a customer billed quarterly. The Company's  
9 proposal is to charge \$16.80 per month for a 5/8-inch meter and \$30.90 for a  
10 quarterly customer.

11 **19. Q. How did Staff and OCA calculate customer charges?**

12 A. Staff erred in developing their customer charge calculation (especially for  
13 District 1) for several reasons. First, in District 1, Staff allocated the costs  
14 associated with the Belleville call center using the A&G allocator rather than  
15 the billing and collecting allocator. This is an error because Staff correctly  
16 allocates call center costs in its District 2 and 3 calculations. Second, for all  
17 Districts, Staff excludes costs associated with public fire service resulting in  
18 lower customer costs. Third, for Staff's District 1 calculation, Staff improperly  
19 used the number of bills based on monthly customers when most customers  
20 are billed quarterly. This results in a charge that is significantly lower than  
21 existing rates and would not even recover the customer costs identified in  
22 Staff's study. Applying Staff's proposed customer charges to the billing  
23 determinants produces approximately \$9.5 million less than Staff's identified

1 customer costs. Staff's customer charge calculations are incorrect and  
2 should be rejected.

3 OPC, in addition to excluding public fire costs, also excluded any  
4 portion of administrative and general costs, which, as I stated earlier, are  
5 appropriately allocated to customer charges as supported by the AWWA  
6 methods. OPC's cost analysis results in much lower customer costs and  
7 should not be relied upon in the calculation of an appropriate customer  
8 charge.

9 **20. Q. Please address the issue of consolidated tariff pricing (CTP) and district  
10 specific pricing (DSP).**

11 A. I addressed the advantages of CTP in my direct testimony. Company witness  
12 Dr. McDermott will address other parties' issues regarding CTP and DSP in  
13 his rebuttal testimony. However, I do have certain additional comments on  
14 this matter.

15 **21. Q. What are your views?**

16 A. First, I would like to commend Staff for offering a movement toward  
17 consolidated pricing with their 3-district proposal. However, I do not believe it  
18 solves the problem and while it is a step in the right direction, it is not a  
19 preferred alternative to the Company's CTP proposal. OPC witness Barbara  
20 Meisenheimer also seems to support some level of consolidation going  
21 forward, but still favors DSP.

22 Mr. Gorman and Mr. Johnstone, however, believe that DSP is the  
23 only rate design alternative, especially as it relates to the districts where their

1 clients reside. Their views indicate that DSP is the only solution to the  
2 inequities and subsidies that they believe exist in a CTP rate design.

3 **22. Q. Is that true?**

4 A. No, it is not. DSP does not even eliminate inequities or subsidies within a  
5 district. For example, it is widely acknowledged that a customer who resides  
6 next to the treatment plant requires little distribution costs compared to a  
7 customer who resides miles away. Also, certain customers can be served  
8 directly from high service pumping at the treatment facility while others  
9 require additional booster pumping and storage facilities in order to receive  
10 service. Yet these cost differences within a district are ignored in the district  
11 specific rate design.

12 **23. Q. What other inequities can exist in a district specific rate design?**

13 A. An example of this can be found in the existing rates in the St. Joseph's  
14 District. The first block rate (usage for the first 100,000 gallons per month) for  
15 the industrial class is \$6.2732 per thousand gallons. The first block rate for  
16 Commercial, OPA and Other Water Utilities is \$4.2794 per thousand and the  
17 residential rate for all usage is \$4.2705 per thousand. The industrial  
18 customer is paying about \$2.00 more per thousand gallons or nearly 47%  
19 more than a commercial or residential customer for the same usage up to  
20 100,000 gallons per month. Therefore, for 100,000 gallons of usage and a  
21 5/8-inch meter, the industrial customer would pay \$636.58 per month and the  
22 commercial customer would pay \$437.20 per month.

23

1 **24. Q. What are the cost of service principles supporting the industrial**  
2 **customer paying \$199.38 more than the commercial customer for the**  
3 **same usage with the same meter size?**

4 A. Simply put, there are none. There is no cost basis for this disparity but it  
5 exists under district specific pricing.

6 **25. Q. Does Mr. Johnstone propose to correct for this obvious disparity**  
7 **between costs and rates in the St. Joseph District?**

8 A. No. Since Ag Processing is a large customer using much more than 100,000  
9 gallons per month, most of Ag Processing's usage falls into the third and  
10 fourth blocks which are priced below cost under the existing district specific  
11 rate design. So Mr. Johnstone's client can offset the higher first block rate  
12 with below-cost rates in the third and fourth blocks. But that does not address  
13 the problem that the small industrial customers in St. Joseph are paying  
14 above cost rates and thus subsidizing the large industrial customers.

15 **26. Q. How would these customers fair under the Company's CTP proposal?**

16 A. Under the Company's proposal, a small industrial customer would be  
17 classified as Rate A and pay the same volumetric rate as a commercial or  
18 residential customer state-wide. The proposed Rate A volumetric rate would  
19 actually be a decrease over the existing first block rate in St. Joseph. The  
20 large industrial customers would pay the Rate J rate which would be the  
21 same for any Rate J customer state-wide. This would be an 8.2% increase  
22 over the existing fourth block rate for industrial customers in St. Joseph.

23 **27. Q. What do you conclude with regard to rate design?**

1           A. DSP is no better at identifying the cost to serve customers than consolidated  
2           or single tariff pricing. The Commission should adopt the Company's CTP  
3           rate design for the reasons stated in Dr. McDermott's testimony and in my  
4           testimony. CTP is cost based and reflects the proper allocation of costs  
5           presented in the Company's cost of service study. It provides affordable  
6           water service for all customers served by the Company regardless of where  
7           such service is delivered.

8   **28. Q. Does this conclude your rebuttal testimony?**

9           A. Yes, it does.