

Exhibit No.:	
Issues:	AAO Lead Line Replacements
Witness:	Bruce W. Aiton
Exhibit Type:	Rebuttal
Sponsoring Party:	Missouri-American Water Company
Case No.:	WU-2017-0296
Date:	August 23, 2017

**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. WU-2017-0296**

**REBUTTAL TESTIMONY**

**OF**

**BRUCE W. AITON**

**ON BEHALF OF**

**MISSOURI-AMERICAN WATER COMPANY**

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

IN THE MATTER OF THE APPLICATION OF ) MISSOURI-AMERICAN WATER COMPANY FOR ) AN ACCOUNTING ORDER CONCERNING MAWC's) ) LEAD SERVICE LINE REPLACEMENT PROGRAM. )	CASE NO. WU-2017-0296
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AFFIDAVIT OF BRUCE W. AITON

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



Bruce W. Aiton

State of Missouri  
County of St. Louis

SUBSCRIBED and sworn to  
Before me this 8<sup>th</sup> day of August 2017.

  
Notary Public

My commission expires:



**REBUTTAL TESTIMONY  
BRUCE W. AITON  
MISSOURI-AMERICAN WATER COMPANY  
CASE NO. WU-2017-0296**

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1 **BRUCE W. AITON**  
2 **REBUTTAL TESTIMONY**

3  
4 **I. INTRODUCTION**  
5

6 **Q. Please state your name and business address.**

7 A. My name is Bruce Aiton, and my business address is 727 Craig Rd., Creve Coeur, MO  
8 63141.  
9

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

11 A. I am employed by Missouri-American Water Company as Director of Engineering.  
12

13 **Q. Are you the same Bruce Aiton that previously filed Direct Testimony in this case?**

14 A. Yes, I am.  
15

16 **Q. What is the purpose of your Rebuttal Testimony?**

17 A. I will respond to certain aspects of the Direct Testimony of Office of the Public Counsel  
18 (OPC) witness Geoff Marke.  
19

20 **II. RESPONSE**

21 **Q. In OPC witness Marke's Direct Testimony (page 4), he states that OPC does not**  
22 **agree with MAWC's estimate that there are approximately 30,000 lead service lines**  
23 **in MAWC's system. How would you describe this estimate?**

24 A. I believe it is a good estimate given the information MAWC has available. The Company  
25 acknowledges that it is not a precise estimate because it does not have up to date

1 information for each and every main and service line in its system, particularly those in  
2 systems it has acquired over time. Nevertheless, it gives a directional estimate that  
3 provides an order of magnitude of the challenge.  
4

5 **Q. How did MAWC develop this estimate?**

6 A. As explained in my direct testimony, MAWC developed the estimate based on available  
7 documentation, institutional knowledge and field experience.<sup>1</sup> For each of the systems  
8 that MAWC maintained (or received through acquisition) tap cards, MAWC staff  
9 reviewed all available and legible tap cards and pulled those that list lead as the material  
10 for the service line. Several systems the Company has acquired over time, however, did  
11 not have tap records. In those areas, an estimate was developed based on the information  
12 available. The Company used a review of the age of houses coupled with institutional  
13 knowledge of existing staff to estimate the number of potential lead services. An  
14 example of a system with no tap records is Mexico, MO. Existing staff who have worked  
15 in the city for many years have a level of knowledge as to which areas of town do and do  
16 not have lead services lines from their experience digging up services over the years.  
17

18 **Q. Do you believe this estimate is sufficient to allow MAWC to prioritize and proceed**  
19 **with its proposed lead service line replacement (“LSLR”) program?**

20 A. Yes. MAWC believes that proceeding with full LSLR is in the best interest of the health  
21 and safety of our customers. As MAWC undertakes its main replacement projects, it  
22 plans to replace lead service lines as they are discovered regardless of whether or not

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<sup>1</sup> Aiton Direct, p.9, l.15 – p.10, l.2.

1 they were part of the original inventory. A complete inventory is not necessary to  
2 complete this work. Further, as Mr. Naumick has indicated, water utilities across the  
3 country are not waiting for perfect inventories to begin the important work of full lead  
4 service line replacements. MAWC has used the best available information to develop our  
5 current estimate and we will adjust this estimate as additional information is gained.

6  
7 **Q. Is MAWC continually seeking additional information to refine its estimate?**

8 A. Yes. Our inventory is updated with information from field and construction crews where  
9 lead service lines are discovered either through construction activity or through leak  
10 remediation. We also use parcel age data to help identify and screen areas where lead  
11 pipe would more likely have been used for the service line. Moreover, MAWC plans to  
12 confer with Department of Health officials for referrals of areas or premises of concern  
13 that we would prioritize and potentially add to the inventory if applicable. Further, any  
14 customer or interested party that has relevant data is welcomed to contact us to help to  
15 refine the information available to the Company.

16  
17 **Q. OPC witness Marke has proposed a pilot study that, among other things, calls for a**  
18 **third party consultant to write a report addressing: 1) how to replace customer**  
19 **owned lead service lines in conjunction with distribution system infrastructure**  
20 **replacement; 2) estimates of the number of lead, copper, or galvanized mains and**  
21 **lead, copper, or galvanized service lines in each MAWC water system; and, 3)**  
22 **estimates of a range of the number of customer-owned lead service lines. Should**  
23 **the lead service line replacements be delayed to allow such a study to be completed?**

1 A. No. MAWC witness Naumick's Direct and Rebuttal Testimonies demonstrate that the  
2 case for full lead service line replacement has been established by EPA and public health  
3 experts. MAWC is working to develop the prioritization of the replacement of water  
4 mains in areas with lead service lines, which will incorporate input from local public  
5 health agencies for potential identification and prioritization of premises and areas in  
6 which to focus our efforts. This information will be considered during the Company's  
7 project prioritization process.

8  
9 **Q. OPC witness Marke suggests that scoping analysis should consider MAWC's**  
10 **proposal for addressing the costs of unusual site restoration work (page 8). How**  
11 **will MAWC address the cost of unusual site restoration work and excavation costs**  
12 **necessitated by structures or improvements located above the customer-owned**  
13 **portion of the lead service lines?**

14 A. As is the case with any pipe replacement project, the costs will vary depending on site  
15 conditions. Accordingly, we have developed a bid document that includes unit price  
16 costs for various site conditions. Some locations will be on the low end of the estimated  
17 costs and others will be on the high end of estimated costs. Like any other pipe  
18 replacement project, the Company will work with its contractors to ensure the work is  
19 being performed safely and cost effectively. For example, where possible, MAWC will  
20 use trenchless technology to minimize unusual site restoration.

21  
22 **Q. How will OPC's proposed "two-year pilot study" affect MAWC's ability to**  
23 **undertake full lead service line replacement?**

1 A. MAWC's LSLR Program proposes to replace known (+/-30,000) service lines within a ten  
2 year period, or roughly 3,000 per year. Using an average cost of \$5,000 per service, MAWC  
3 estimates that it would invest approximately \$15 million per year. OPC's proposal to limit the  
4 investment in LSLR to \$4 million per year during the pilot limits MAWC's ability to replace  
5 lead service lines during the proposed pilot. Consequently, the Company's ability to perform  
6 planned main replacement projects will also be limited. As Mr. Naumick indicated in his direct  
7 testimony, "the galvanic corrosion that can occur after a partial lead service line replacement  
8 and the physical disturbance of the lead service line have the potential to increase lead levels  
9 following replacement."<sup>2</sup> Since partial LSLR has the potential to increase the risk of exposure  
10 to lead, the Company will not perform partial LSLR. This means MAWC will not complete the  
11 main replacement projects in areas where lead service lines are present, delaying much needed  
12 infrastructure replacement and rehabilitation. In addition, limiting the level of investment to \$4  
13 million per year delays the Company's proposed completion of its LSLR program, pushing it  
14 out well beyond ten years.

15  
16 **Q. Does this conclude your rebuttal testimony at this time?**

17 A. Yes, it does.

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<sup>2</sup> Naumick Direct, p.7, ll.17-19.