

*Exhibit No.:*  
*Issue:* Depreciation Rates  
*Witness:* Keenan B. Patterson, PE  
*Sponsoring Party:* MoPSC Staff  
*Type of Exhibit:* Surrebuttal Testimony  
*Case No.:* WR-2017-0285  
*Date Testimony Prepared:* February 9, 2018

**MISSOURI PUBLIC SERVICE COMMISSION**

**COMMISSION STAFF DIVISION**

**OPERATIONAL ANALYSIS DEPARTMENT**

**SURREBUTTAL TESTIMONY**

**OF**

**KEENAN B. PATTERSON, PE**

**MISSOURI-AMERICAN WATER COMPANY**

**CASE NO. WR-2017-0285**

*Jefferson City, Missouri*  
*February 2018*

1 **SURREBUTTAL TESTIMONY**  
2 **OF**  
3 **KEENAN B. PATTERSON, PE**  
4 **MISSOURI-AMERICAN WATER COMPANY**  
5 **CASE NO. WR-2017-0285**

6 Q. Please state your name and business address.

7 A. My name is Keenan B. Patterson. My business address is Missouri Public  
8 Service Commission ("Commission"), P.O. Box 360, Jefferson City, Missouri 65102.

9 Q. What is your position at the Commission?

10 A. I am a Utility Regulatory Engineer in the Engineering Analysis Unit,  
11 Operational Analysis Department, Commission Staff Division.

12 Q. Are you the same Keenan B. Patterson that filed direct testimony as part of the  
13 Staff's Cost of Service Report in this case on November 30, 2017 and Rebuttal Testimony on  
14 January 17, 2018?

15 A. Yes.

16 Q. What is the purpose of your Surrebuttal Testimony?

17 A. The purpose of my Surrebuttal Testimony is to address depreciation  
18 rate-related requests appearing in the Rebuttal Testimony of Office of the Public Counsel  
19 ("OPC") witness Mr. John A. Robinett and Missouri-American Water Company (MAWC)  
20 witness Mr. Brian W. LaGrand.

21 Q. What depreciation rate-related requests were made by OPC?

22 A. OPC requested the assignment of a depreciation rate of 5 percent to sewer  
23 Account No. 390.9—Structures and Improvements—Leasehold. OPC also requested that the

1 Commission require MAWC to submit the report of an independent audit to determine the  
2 sources and practices that led to negative depreciation reserves.

3 Q. Does Staff agree with OPC's request to add a depreciation rate of 5 percent for  
4 sewer Account No. 390.9?

5 A. Staff has no objection to this request. A depreciation rate of 0 percent was  
6 assigned to this account in Case No. WR-2015-0301 because there was no plant in the  
7 account at that time. Since then, MAWC has added plant to this account. MAWC witness  
8 Mr. LaGrand also agreed to this change in his Rebuttal Testimony.

9 Staff recommends that the Commission order MAWC to use the sewer depreciation  
10 rates shown in Schedule KBP-s1. This schedule adds the 5 percent deprecation rate to  
11 Account No. 390.9, but it is otherwise the same as the depreciation rate schedule approved by  
12 the Commission in Case No. WR-2015-0301. Staff recommends that the Commission order  
13 MAWC to continue to use the water depreciation rates ordered in Case No. WR-2015-0301  
14 for all other accounts.

15 Q. Does Staff agree that MAWC should be ordered to submit the report of an  
16 external independent audit that addresses negative depreciation reserves as described by  
17 OPC?

18 A. Staff has no objection to such an audit and report. Staff recommends that such  
19 a report be submitted as part of or in conjunction with the next depreciation study. In  
20 addition, Staff recommends that the commission order MAWC to report on the potential  
21 plant, depreciation reserve and depreciation rate impacts of its transition from automated  
22 meter reading (AMR) to automated metering infrastructure (AMI) in addition to the sources  
23 of negative depreciation reserves. Staff recommends that the Commission order MAWC to

1 propose methods to address these issues, including adjustments to deprecation reserves and  
2 depreciation rates, and incorporate these proposals into its next depreciation study.

3 Q. What depreciation rate-related requests were made by MAWC?

4 A. MAWC reiterated its request to change the depreciation rate for Account No.  
5 391.4—BT Initial Investment from 5 percent to 14.3 percent.

6 Q. Does Staff agree with MAWC's request to change the depreciation rate for  
7 Account No. 391.4?

8 A. No. Staff's reasons for disagreeing with this request are described in my  
9 Rebuttal Testimony. Staff recommends that the Commission order MAWC to use the sewer  
10 depreciation rates appearing in Schedule KBP-s1 and to continue to use the water depreciation  
11 rates ordered in WR-2015-0301.

12 Q. Does this complete your Surrebuttal Testimony?

13 A. Yes.

**BEFORE THE PUBLIC SERVICE COMMISSION**

**OF THE STATE OF MISSOURI**

In the Matter of Missouri-American Water )  
Company's Request for Authority to ) Case No. WR-2017-0285  
Implement General Rate Increase for Water )  
and Sewer Service Provided in Missouri )  
Service Areas )

**AFFIDAVIT OF KEENAN B. PATTERSON, PE**

STATE OF MISSOURI )  
 ) ss.  
COUNTY OF COLE )

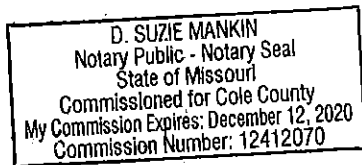
**COMES NOW KEENAN B. PATTERSON, PE** and on his oath declares that he is of sound mind and lawful age; that he contributed to the foregoing Surrebuttal Testimony; and that the same is true and correct according to his best knowledge and belief.

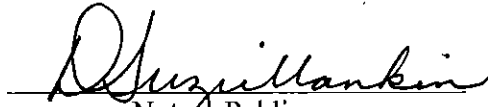
Further the Affiant sayeth not.

  
**KEENAN B. PATTERSON, PE**

**JURAT**

Subscribed and sworn before me, a duly constituted and authorized Notary Public, in and for the County of Cole, State of Missouri, at my office in Jefferson City, on this 8<sup>th</sup> day of February, 2018.



  
Notary Public

**MISSOURI-AMERICAN WATER COMPANY- Sewer**  
**SCHEDULE of DEPRECIATION RATES**  
**DIVISIONS: All**  
**WR-2017-0285**

NARUC ACCOUNT NUMBER	<u>ACCOUNT DESCRIPTION</u>	% Remaining Life DEPRECIATION	AVERAGE SERVICE LIFE (YEARS)	IOWA Curves	% NET SALVAGE
<b>COLLECTION PLANT</b>					
351	Structures & Improvements	2.03%	50	R3	-5%
352.1	Collection Sewers (Force)	1.64%	60	R2.5	-10%
352.2	Collection Sewers (Gravity)	1.58%	70	R3	-20%
353	Services To Customers	2.87%	55	R2.0	-40%
354	Flow Measuring Devices	3.38%	25	S2.5	0%
356	Other Collection Equipment	3.15%	50		0%
357	Communication Equipment	6.67%	15	SQ	0%
<b>PUMPING PLANT</b>					
361	Structures & Improvements	2.17%	45	R3	0%
362	Receiving Wells	2.87%	30	L2.5	0%
363	Electric Pumping Equip, (Includes Generators)	4.31%	15	L1.5	-5%
364	Diesel Pumping Equipment	4.31%	15	L1.5	-5%
365	Other Pumping Equipment	4.31%	15	L1.5	-5%
<b>TREATMENT &amp; DISPOSAL PLANT</b>					
371	Structures & Improvements Treatment & Disposal Equipment,	1.43%	60	R2.5	-5%
372	(Includes pumps, blowers, generators)	3.97%	30	S0.5	-20%
373	Plant Sewers	1.60%	50	R2.5	0%
374	Outfall Sewer Lines	3.04%	35	L2.0	0%
<b>GENERAL PLANT</b>					
390.0	Structures & Improve - General	3.11%	35	R2.5	-5%
390.9	Structures & Improve - Leasehold	5.00%	20	R4	0%
391.0	Office Furniture	5.00%	20	SQ	0%
391.1	Computer & Peripheral Equipment	20.00%	5	SQ	0%
391.2	Computer Hardware & Software	20.00%	5	SQ	0%
391.25	Computer Software	5.00%	20	SQ	0%
391.26	Personal Computer Software	10.00%	10	SQ	0%
391.3	Other Office Equipment	6.67%	15		0%
391.4	BTS Initial Investment	5.00%	20		0%
392.0	WW Transortation Euipment	3.45%	10	L2.5	5%
392.1	Transportation Equipment - Light trucks	3.45%	10	L2.5	5%
392.2	Transportation Equipment - Heavy trucks	3.45%	10	L2.5	5%
392.3	Transportation Equipment - Autos	3.45%	10	L2.5	5%
392.4	Transportation Equipment - Other	3.45%	10	L2.5	5%
393.0	Stores Equipment	4.00%	25	SQ	0%
394.0	Tools, Shop, Garage Equipment	5.00%	20	SQ	0%
395.0	Laboratory Equipment	6.67%	15	SQ	0%
396.0	Power Operated Equipment	7.71%	15	L2.5	0%
397.1	Communication Equip - Non Telephone	6.67%	15	SQ	0%
397.2	Communication Equip - Telephone	6.67%	15	SQ	0%
398.0	Miscellaneous Equip	6.43%	15	SQ	0%
399.0	Other Tangible Equipment	0.00%	30	R2.0	0%