Exhibit No.:	
Issues:	Cost of Service, Revenue Allocation, and Rate Design
Witness:	Jessica A. York
Type of Exhibit:	Direct/Rebuttal Testimony
Sponsoring Party:	Missouri Industrial Energy Consumers
Case Nos.:	WR-2024-0320 / SR-2024-0321
Date Testimony Prepared:	December 20, 2024

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas	))))))	**Case Nos. WR-2024-0320 & SR-2024-0321**

Direct/Rebuttal Testimony and Schedules of

Jessica A. York

on Cost of Service, Revenue Allocation and Rate Design

On behalf of

Missouri Industrial Energy Consumers

December 20, 2024

BRUBAKER & ASSOCIATES, INC.

Project 11653

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas	)	**Case Nos. WR-2024-0320 & SR-2024-0321**

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Affidavit of Jessica A. York

Jessica A. York, being first duly sworn, on her oath states:

1. My name is Jessica A. York. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my Direct/Rebuttal Testimony and Schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case Nos. WR-2024-0320 and SR-2024-0321.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

Jessica A. York

Subscribed and sworn to before me this 20th day of December, 2024.

ADRIENNE JEAN NAVARRO
Notary Public - Notary Seal
STATE OF MISSOURI
Jefferson County
My Commission Expires: Mar. 22, 2025
Commission # 21989987

Notary Public

BEFORE THE PUBLIC SERVICE COMMISSION
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Direct/Rebuttal Testimony of Jessica A. York

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Jessica A. York. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation and a Principal with the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to this testimony.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A This testimony is presented on behalf of the Missouri Industrial Energy Consumers ("MIEC"), a non-profit corporation that represents the interests of large consumers in Missouri rate matters. The MIEC represents the interests of companies purchasing substantial amounts of water from Missouri-American Water Company ("MAWC" or "Company").

I. INTRODUCTION AND SUMMARY

Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A I will address the Company's water Class Cost of Service Study ("CCOSS") for St. Louis County, as well as the Company's proposed revenue apportionment and rate design for this district. I also respond to the Company's proposal for continued movement toward Consolidated Tariff Pricing ("CTP"). Further, I will address the Company's proposal to implement a Revenue Stabilization Mechanism ("RSM").

Note that this testimony pertains to St. Louis County only, even if I do not specifically reference St. Louis County.

My silence regarding any position taken by MAWC in its Direct Testimony or other filings in this proceeding does not indicate my tacit endorsement of that position.

Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS AND CONCLUSIONS.

A My findings and recommendations are as follows:

- I recommend the Missouri Public Service Commission ("MPSC" or "Commission") reject MAWC's proposed revenue spread for St. Louis County, as it is based on continued movement toward CTP, as well as an inaccurate water CCOSS model.

- I recommend the Commission reject MAWC's proposal to continue consolidating rates for customers located inside and outside of St. Louis County. CTP violates cost-causation principles, could erode system efficiency, and may reduce the incentive for MAWC to perform due diligence before acquiring additional water systems. In addition, CTP ignores the economies of scale associated with serving customers in a relatively large, condensed district as compared to serving smaller numbers of customers in geographically dispersed locations.

- The Company's water CCOSS for St. Louis County relies on the Base-Extra Capacity method for cost allocation. I generally agree with the use of the Base-Extra Capacity approach, as this is a widely accepted method within the water industry for functionalizing, classifying, and allocating the Company's water cost of service across customer classes. However, the Company's water CCOSS is inaccurate and should not be relied upon to guide revenue apportionment in this case.

- There are deficiencies in the Company's water CCOSS which makes the results inaccurate and unreliable. The deficiencies are summarized below and discussed in greater detail in this testimony.

  - Failure to allocate any Source of Supply or Water Treatment costs to the Public Fire service class.

  - Inaccurate allocation of purchased power expenses.

  - Unsupported Rate J class distribution multiplier.

  - The system load factors used by the Company to assign costs to the base and extra-capacity demand categories are inconsistent with the load factors indicated by the customer class peaking factors, and inconsistent with the methodology described in the American Water Works Association's ("AWWA") Manual M1 ("AWWA Manual M1").

  - I recommend that 86.3% of depreciation expense and plant investment in the category of mains sized 10-inches to 16-inches be assigned to the Distribution functional cost category instead of Transmission, consistent with the classification of mains in MAWC's annual reports.

- Based on my corrections to MAWC's CCOSS, and the rejection of CTP, I recommend a revenue spread where no class receives an increase greater than 1.25x the district average.

- If my corrections to the MAWC's CCOSS are not adopted, I continue to recommend that no class receive a rate increase greater than 1.25x the district average.

- The Company's proposed RSM should be rejected. The Company has not shown that it has been unable to earn its authorized Return on Equity ("ROE") under traditional rate mechanisms. Further, the RSM would reduce the bill savings that customers may expect to achieve through conservation efforts.

- The Company proposes to implement a production cost tracker, if the RSM is not approved as proposed. I recommend the Company's proposed production cost tracker be rejected.

II. MAWC'S PROPOSED REVENUE APPORTIONMENT

Q HOW DO THE RESULTS OF MAWC'S CCOSS MODELS COMPARE TO ITS PROPOSED SPREAD OF THE CLAIMED REVENUE DEFICIENCY ACROSS CUSTOMER CLASSES?

A Table JAY-1 below compares MAWC's CCOSS results to its proposed revenue apportionment by customer class and district.

TABLE JAY-1

MAWC's CCOSS vs. Proposed Revenue Spread

Line	Customer Class	Current Revenue[1]	Increase to Reach COS[1] Amount	Percent	Index[3]	MAWC Proposed Increase[2] Amount	Percent	Index[3]
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
	St. Louis County							
1	Residential	$219,196,203	$ 103,214,697	47.1%	1.11	$ 102,303,614	46.7%	1.03
2	Non-Residential	68,531,934	12,784,517	18.7%	0.44	28,497,902	41.6%	0.92
3	Rate J	11,296,485	7,898,700	69.9%	1.64	6,183,424	54.7%	1.21
4	Rate B	4,931,008	2,185,055	44.3%	1.04	2,406,715	48.8%	1.08
5	Rate P	4,684,084	4,177,716	89.2%	2.09	307,721	6.6%	0.14
6	Private Fire	4,998,343	3,351,589	67.1%	1.57	2,644,649	52.9%	1.17
7	Total	$313,638,057	$ 133,612,274	42.6%	1.00	$ 142,344,025	45.4%	1.00
8	Proposed Increase More / (Less) than CCOSS Increase					$ 8,731,751	6.5%	
	Other MO							
9	Residential	$ 68,796,681	$ 37,626,396	54.7%	1.16	$ 29,517,175	42.9%	1.08
10	Non-Residential	30,997,236	5,690,798	18.4%	0.39	10,707,712	34.5%	0.87
11	Rate J	10,574,416	3,190,461	30.2%	0.64	3,193,245	30.2%	0.76
12	Rate B	4,406,843	2,411,072	54.7%	1.16	2,189,493	49.7%	1.25
13	Rate P	1,091,501	2,881,750	264.0%	5.60	191,616	17.6%	0.44
14	Private Fire	1,926,258	3,776,217	196.0%	4.15	1,045,705	54.3%	1.37
15	Total	$117,792,935	$ 55,576,694	47.2%	1.00	$ 46,844,946	39.8%	1.00
16	Proposed Increase More / (Less) than CCOSS Increase					$ (8,731,748)	-15.7%	
17	**Total Water**	$431,430,992	$ 189,188,968	43.9%		$ 189,188,971	43.9%	

Sources

[1] MAWC's CCOSS models. Schedules MWM-1 and MWM-2.

[2] CAS 11 and CAS 12.

[3] Index relative to district average increase.

As shown in the table above, MAWC's proposed revenue apportionment does not follow the results of its CCOSS models. The Company proposes to shift about $8.7 million to St. Louis County water customers from customers outside of St. Louis

County, to continue moving toward CTP. As a result, St. Louis County Non-Residential and Rate B customers would be paying rates more than MAWC's cost of providing service to them.

The Company's St. Louis County CCOSS model indicates that the Rate J class requires an increase of 69.9%, or 1.64x the district average to reach cost of service. MAWC's CCOSS models show that Rate J customers outside of St. Louis County would require an increase of 30.2%, or 0.64x the district average to reach cost of service. In total, the Rate J class would require a 50.7% increase, or 1.16x the system average to reach cost of service, under the Company's proposed CCOSS models.

Under the Company's proposed revenue spread, St. Louis County's Rate J customers would receive an increase of about 54.7%, or 1.21x the district average increase, while Non-St. Louis County Rate J customers would receive an increase of 30.2%, or 0.76x the district average.

Q DO YOU AGREE WITH THE COMPANY'S PROPOSED REVENUE APPORTIONMENT?

A No. The Company's proposed revenue apportionment is based on inaccurate CCOSS models that need to be corrected. In addition, MAWC's proposed revenue apportionment reflects continued movement toward CTP, which I do not support for the reasons stated in this testimony.

Q ARE YOU RECOMMENDING AN ALTERNATIVE REVENUE APPORTIONMENT?

A Yes. I am recommending an alternative revenue apportionment for St. Louis County customer classes based on my corrections to the Company's St. Louis County CCOSS model, with rates based on each district's respective CCOSS. My primary

recommended revenue apportionment is shown in Table JAY-2 below, using the Company's claimed revenue requirement.

TABLE JAY-2

MIEC's CCOSS vs. Primary Proposed Revenue Spread for St.Louis County

Line	Customer Class	Current Revenue[1]	Increase to Reach COS[1]			MIEC Proposed Increase[2]		
			Amount	Percent	Index	Amount	Percent	Index
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
	St. Louis County							
1	Residential	$ 219,196,203	$ 110,374,431	50.4%	1.18	$ 111,741,658	51.0%	1.20
2	Non-Residential	68,531,934	12,208,176	17.8%	0.42	12,635,641	18.4%	0.43
3	Rate J	11,296,485	3,255,305	28.8%	0.68	3,325,766	29.4%	0.69
4	Rate B	4,931,008	1,003,567	20.4%	0.48	1,034,324	21.0%	0.49
5	Rate P	4,684,084	2,184,001	46.6%	1.09	2,213,218	47.2%	1.11
6	Private Fire	4,998,343	4,586,794	91.8%	2.15	2,661,667	53.3%	1.25
7	Total	$ 313,638,057	$ 133,612,274	42.6%	1.00	$ 133,612,274	42.6%	1.00

Sources

[1] Schedule JAY-2.

[2] No class receives an increase greater than 1.25x district average. Remaining revenue deficiency is spread uniformly across non-capped classes.

If my recommended corrections to MAWC's St. Louis County CCOSS are adopted, I recommend bringing all classes closer to cost of service, subject to the limitation that no class receive an increase greater than 1.25x the district average.

In the event that my corrections to MAWC's are not adopted, I continue to recommend that no class receive an increase greater than 1.25x the system average. Such an increase will still make a movement toward cost of service, while mitigating the significantly above-district average increases that would be required for certain classes to reach cost of service.

III. WATER CCOSS

Q PLEASE DISCUSS THE COMPANY'S CCOSS.

A MAWC's water CCOSS is sponsored by Mr. Max McClellan. His water CCOSS utilizes the widely accepted Base-Extra Capacity method for *functionalizing, classifying,* and

allocating costs to MAWC's various customer classes. Investment in water utility plant and operating costs are first *functionalized* according to the role they play in providing water service: water supply, pumping, treatment, transmission, distribution, metering, and billing. Next, these costs are *classified* into cost categories that reflect the causation of these costs: Base, or average day rates of flow; Extra Capacity-Maximum Day and Extra Capacity-Maximum Hour rates of flow; and Customer-related costs, such as metering and billing. Lastly, costs are *allocated* to MAWC's customer classes based on allocation factors that reflect each class's contribution to base use, extra-capacity demand, or the number of customers on the system. The various allocation factors used in the Company's water CCOSS for St. Louis County are derived on Schedule MWM-1, pages 25 through 29.

Q DO YOU AGREE WITH MR. MCCLELLAN'S WATER CCOSS FOR ST. LOUIS COUNTY?

A I generally agree with the use of the Base-Extra Capacity method used in the Company's water CCOSS. However, there are certain corrections that need to be made to improve the accuracy of the study. First, the Company has not allocated any Source of Supply or Water Treatment costs to the Public Fire class. The Public Fire protection class should receive an allocation of all these costs. Second, purchased power expense should be allocated on both a base and extra-capacity demand, rather than strictly on base usage. Third, the Industrial distribution multiplier used in the water CCOSS has not been supported. Fourth, the system load factors used to assign costs between the base and extra-capacity functions should be modified to reflect the system load factors used in the last rate case to be consistent with the customer class load characteristics indicated by the customer class peaking factors, and to reflect the

methodology described in the AWWA Manual M1. Fifth, the Company's definition of transmission and distribution mains should be revised to be consistent with the information produced in its annual reports to the MPSC.

Each of these recommended corrections to the St. Louis County water CCOSS is discussed in detail throughout this testimony.

III.A. Allocation of Costs to Public Fire Protection

Q HAS THE COMPANY ALLOCATED ANY SOURCE OF SUPPLY OR WATER TREATMENT COSTS TO THE PUBLIC FIRE PROTECTION CLASS?

A No. As shown on Schedule MWM-1, page 1, Mr. McClellan has not allocated any costs associated with Source of Supply or Water Treatment to the Public Fire class.

Q IS IT REASONABLE TO EXCLUDE THE PUBLIC FIRE PROTECTION CLASS FROM AN ALLOCATION OF THESE COSTS?

A No. These costs are incurred in part to provide service to the Public Fire protection class. As a result, the Public Fire protection class should receive an allocated share.

Q DOES THE COMPANY AGREE THAT THE FIRE PROTECTION CLASSES SHOULD RECEIVE AN ALLOCATION OF SOURCE OF SUPPLY COSTS?

A Yes. In response to discovery, the Company agreed that it would be appropriate to allocate some portion of the fixed costs associated with Source of Supply costs to fire service customer classes.[1] In addition, an allocation of Source of Supply costs to the Public Fire class would be consistent with the Company's treatment of the Private Fire class.

[1]MAWC's Response to Data Request MIEC 1-15. Attached as Schedule JAY-1 at page 1.

Q DOES THE COMPANY AGREE THAT WATER TREATMENT COSTS SHOULD BE ALLOCATED TO THE FIRE SERVICE CLASSES?

A No. The Company stated that it did not allocate these costs to fire service classes because water treatment costs are incurred primarily to provide potable water service, and potable water is not generally needed for firefighting purposes.[2] However, the Company's water CCOSS shows that Water Treatment costs were allocated to the Private Fire class.

Q DO YOU AGREE WITH THE COMPANY'S RATIONALE FOR EXCLUDING THE PUBLIC FIRE SERVICE CLASS FROM AN ALLOCATION OF WATER TREATMENT COSTS?

A No. Although non-potable water could be used for fire protection service, the question is what type of water is <u>actually</u> used by MAWC to provide fire protection service. The Company has not provided evidence showing that non-potable water is being used to serve the fire service classes. In fact, the Company has confirmed that potable water is indeed used to serve the Public Fire class.[3]

Further, the fire service classes receive an allocation of storage costs, which are also associated with potable water. Thus, it is just and reasonable to allocate a portion of water treatment costs to the Public Fire class, just as it has done for the Private Fire class.

[2] *Id.*
[3] *Id.*

Q PLEASE SUMMARIZE YOUR RECOMMENDATION WITH RESPECT TO THE ALLOCATION OF COSTS TO THE FIRE SERVICE CLASSES.

A I recommend that both the Private and Public Fire service classes receive an allocation of Source of Supply, Power and Pumping, and Water Treatment costs in the water CCOSS, using the allocation factor labeled by the Company as Factor 3. Factor 3 reflects a base and maximum-day extra-capacity allocator with a fire protection component.[4]

III.B. Allocation of Purchased Power Expenses

Q HOW HAS MR. MCCLELLAN ALLOCATED FUEL AND POWER EXPENSES IN THE WATER CCOSS?

A For Source of Supply, Power and Pumping, and Water Treatment, Mr. McClellan used Factor 1 to allocate purchased power costs between customer classes. Factor 1 allocates purchased power costs between customer classes based on each class's annual (or average daily) consumption.[5] The use of Factor 1 reflects an assumption that Fuel and Power expenses are base costs, which tend to vary with the quantity of water used, plus costs associated with supplying, treating, pumping, and distributing water to customers under average load conditions, without the elements necessary to meet peak demands. In addition, Factor 1 excludes the Public Fire class.

[4]Factor 3 is developed on Schedule MWM-1 at page 25.
[5]Factor 1 is also developed on Schedule MWM-1 at page 25.

Q WHY IS IT INACCURATE TO USE FACTOR 1 TO ALLOCATE FUEL AND POWER EXPENSES BETWEEN RATE CLASSES?

A The use of Factor 1 does not recognize how MAWC incurs purchased power expense. Purchased power expense is based on demand and energy consumption. Demand costs are based on the highest power demand in a month, not on average daily usage. Therefore, the demand component of purchased power expense does not vary with the amount of water consumed. Instead, it varies with the peak day and peak hour power consumption.

In addition, the energy consumption portion of purchased power costs also varies with time and seasonal use and does not vary evenly with the daily amount of water consumed. MAWC purchases power from Ameren Missouri for its St. Louis County operations. Ameren Missouri's tariffs contain seasonally differentiated energy charges for all rate schedules, and seasonally differentiated demand charges for Commercial and Industrial customers with meters capable of measuring demand. Ameren Missouri's energy charges and demand charges are higher during the summer months of June through September than in the non-summer months.

Thus, Ameren Missouri's commercial rates for St. Louis County customers reflect the variation of energy prices based on when energy is actually consumed, and the variability of energy costs across peak and non-peak periods.[6] As such, MAWC's cost of energy within its purchased power expense does not evenly vary across all water consumed, but rather the price increases during peak periods and the summer season, and is lower during the off-peak periods and winter season.

[6]Ameren Missouri tariffs for Small General Service, Large General Service, Small Primary Service, Large Primary Service, and Large Transmission Service. Rates effective July 9, 2023.

Q WHAT FACTOR SHOULD BE USED TO ALLOCATE FUEL AND POWER COSTS IN THE CCOSS?

A The use of Factor 3 would be consistent with the proper allocation of other Source of Supply, Water Treatment, and Power and Pumping expenses that have been classified as serving both base and maximum day-extra capacity requirements, including an allocation to the fire service classes.

In addition, Factor 3 more accurately allocates purchased power expense between customer classes because it allocates costs between customer classes based on average flow and peak day demand. Average daily usage reasonably allocates a portion of the energy component of purchased power, and peak day factors correspond to the demand component of the Company's purchased power expense, which is established during peak water consumption periods.

Thus, Factor 3 more accurately allocates purchased power expense between customer classes based on how the Company incurs purchased power expense to meet the seasonal, monthly, and daily water demand of its customers.

III.C. Rate J Distribution Multiplier

Q DOES MR. MCCLELLAN'S WATER CCOSS DISTINGUISH THE ALLOCATION OF TRANSMISSION MAINS FROM DISTRIBUTION MAINS, RECOGNIZING THAT SOME CUSTOMERS DO NOT TAKE SERVICE FROM DISTRIBUTION MAINS?

A Yes. As explained by Mr. McClellan at page 10 of his Direct Testimony, the Company considers mains with diameters of 10-inches and larger to be transmission mains.[7] Mains smaller than 10-inches are considered to be distribution mains.[8] All customer

[7] Direct Testimony of Mr. McClellan at page 10, lines 16-18.
[8] *Id.*

classes utilize transmission mains and, as a result, all customer classes are allocated a share of transmission mains costs.[9] However, some large customers take service solely from transmission mains, and therefore, should not receive an allocation of distribution mains costs.[10] In recognition of this distinction, for each customer class, the Company has estimated the portion of water sales served directly from the transmission system and has excluded those sales from an allocation of distribution cost.[11] This has been done through the application of a distribution multiplier to each class's usage, in the development of distribution cost allocation factors.

Q DO YOU AGREE WITH MR. MCCLELLAN THAT THE ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINS COSTS SHOULD REFLECT THE FACT THAT SOME CUSTOMERS ARE CONNECTED DIRECTLY TO THE TRANSMISSION SYSTEM AND DO NOT USE THE DISTRIBUTION SYSTEM?

A Yes. I agree that the water CCOSS should reflect the fact that some customers are connected directly to the large transmission mains and do not take service from the smaller distribution mains for cost allocation in the water CCOSS. Customers not served by distribution mains should not be allocated a share of distribution costs associated with their usage.

Q WHAT DISTRIBUTION MULTIPLIER HAS THE COMPANY USED FOR THE RATE J CLASS IN THE ST. LOUIS COUNTY WATER CCOSS?

A The Company has used a distribution multiplier of 11% for the Industrial class. This is shown on Schedule MWM-1 at page 23. This means the Company estimates that 11%

[9] *Id.* at lines 19-21.
[10] *Id.* at page 11, lines 7-9.
[11] *Id.* at lines 9-12.

of water sales to the Rate J class are served from the distribution system, and 89% are served directly from the Company's transmission mains.

Q DO YOU AGREE WITH THE COMPANY'S RATE J DISTRIBUTION MULTIPLIER OF 11%?

A No. The Company has not shown how it developed the 11% distribution multiplier in this case. In addition, using water consumption to develop the distribution multiplier significantly overstates the portion of distribution system investment and expenses that is required to provide service to these large customers. MAWC needs to also consider the length of distribution main serving the Rate J customers, consistent with its past practice.

Q HOW WAS THE LENGTH OF DISTRIBUTION MAIN SERVING RATE J CUSTOMERS CONSIDERED BY MAWC IN THE PAST?

A In the past, it was determined that while Rate J customers have a significant portion of water consumption served by small distribution mains, the actual length of distribution mains used to connect these customers to the transmission system represents a very small fraction of the total distribution system, and this should be recognized in developing an appropriate distribution multiplier.

Q WHAT WAS THE DISTRIBUTION MULTIPLIER IN MAWC'S PRIOR RATE CASES?

A In Case No. WR-2020-0344, Staff reflected a distribution multiplier of about 0.10 for Rate J customers both inside and outside of St. Louis County,[12] which it proposed to

[12]Case No. WR-2020-0344. Staff's report on cost of service and rate design. St. Louis County usage adjustments are shown on Schedule 7, page 7 of 10, line 32. Non-St. Louis County usage adjustments are shown on Schedule 7, page 2 of 10, line 32.

continue in the last rate case.[13] The 10% distribution multiplier was developed by MAWC witness Paul Herbert in Case No. WR-2008-0311.

Q WHAT WAS THE BASIS FOR THE 10% DISTRIBUTION MULTIPLIER IN THE PRIOR CASES?

A In Case No. WR-2008-0311, MAWC witness Paul Herbert developed the 10% distribution multiplier for Rate J customers in St. Louis County. For the Industrial or Rate J classification, an analysis of the customers was performed to determine the size of main each Rate J customer was served from.[14] The analysis showed that out of 215 Rate J customers, 112 customers representing 61.8% of the Rate J consumption are connected to mains 12-inches and larger.[15] The remaining 103 customers with 38.2% of the consumption were connected to mains smaller than 12-inches.[16]

For the 103 customers served from small mains, Mr. Herbert analyzed the length of distribution mains used to serve these customers from the transmission system.[17] The analysis showed that only about 225,000 feet of small mains were used from the transmission system to the connection points of the 103 Rate J customers.[18] The 225,000 feet represented about 1.3% of the total feet of distribution mains on the system at the time.[19] Mr. Herbert concluded that the analysis showed that although certain Rate J customers are connected to smaller mains, the length of those mains are only a small fraction of the total distribution main system.[20] As a result, Mr. Herbert

[13]Case No. WR-2022-0303, Direct Testimony of Keri Roth at page 8, lines 21-23.
[14]Case No. WR-2008-0311, Direct Testimony of Paul Herbert at page 10.
[15]*Id.*
[16]*Id.*
[17]*Id.*
[18]*Id.*
[19]*Id.*
[20]*Id.*

ultimately recommended a 10% distribution multiplier, but his testimony does not explicitly explain how he arrived at 10%.[21]

Q DO YOU AGREE WITH THE 10% DISTRIBUTION MULTIPLIER RECOMMENDED BY PAUL HERBERT, AND RELIED ON IN MAWC'S CCOSS IN PRIOR RATE CASES?

A No. The 10% distribution multiplier appears to be arbitrary, and still overstates the costs associated with the distribution system that are incurred to serve Rate J customers. I recommend that the distribution multiplier be based on the length of small distribution mains required to provide service to Rate J customers. In addition, I recommend the Commission direct the Company to conduct an updated study of the length of distribution main serving its Rate J customers, like the study that was described by MAWC witness Mr. Herbert in the 2008 rate case.

Q HAVE YOU RECALCULATED THE DISTRIBUTION MULTIPLIER BASED ON THE LENGTH OF DISTRIBUTION MAINS ON MAWC'S SYSTEM?

A Yes. I am not aware of an updated study of the length of small distribution mains used to connect Rate J customers to the transmission system. Thus, I have assumed 225,000 feet of small distribution mains, based on the study completed for the 2008 rate case. Using the definition of distribution mains reflected in the Company's water CCOSS, the length of distribution mains in St. Louis County is 19,254,897 feet.[22] The ratio of 225,000 to 19,254,897 is 1.17%. However, if my recommended modification of

[21] *Id.*
[22] Schedule MWM-1, page 24 of 29.

the definition of distribution mains is adopted, I estimate that the Industrial class distribution multiplier would be about 1.02% (i.e., 225,000 divided by 22,162,714).

A Rate J distribution multiplier of 1.17% is likely conservative, given that the number of Rate J customers has decreased since the 2008 rate case.[23] This means that the length of distribution mains serving Rate J customers may be less than 225,000 feet, and the current distribution multiplier may be less than 1.17%.

Q IN THE EVENT THE COMMISSION DECLINES TO ADOPT YOUR RECOMMENDED DISTRIBUTION MULTIPLIER OF 1.17% FOR THE RATE J CLASS, DO YOU HAVE AN ALTERNATIVE RECOMMENDATION?

A Yes. As an alternative, I recommend that the Rate J distribution multiplier for St. Louis County be no more than 10%, consistent with the Company's and Commission Staff's ("Staff") recommendations in prior cases. In addition, the Company should be directed to conduct an updated study of the length of distribution main serving Rate J customers as I have previously discussed.

III.D. System Load Factors

Q PLEASE IDENTIFY THE SYSTEM LOAD (OR CAPACITY) FACTORS USED IN THE COMPANY'S WATER CCOSS.

A The Company's study includes the following system capacity factors, which are shown on Schedule MWM-1 at page 24:

- System load factor (max day): 64.91%.
- System load factor (max day with fire): 60.68%.

[23]Case No. WR-2008-0311 identifies 215 Rate J customers in St. Louis County, while Schedule MWM-1, page 23 of the current case, identifies 160 Rate J customers in St. Louis County.

- System load factor (hourly): 40.06%.
- System load factor (hourly with fire): 33.43%.

Q HOW ARE THESE SYSTEM CAPACITY FACTORS USED IN THE COMPANY'S WATER CCOSS?

A The system capacity factors are used to assign portions of costs to the base and extra-capacity cost components in the water CCOSS. Specifically, they are used to weight base usage and extra-capacity demands in the development of several customer class allocation factors in the water CCOSS. Higher system load factors equate to a larger portion of costs being allocated on base, or average water consumption, and a smaller portion of costs being allocated on extra-capacity demands.

Q WHAT IS YOUR CONCERN WITH THE COMPANY'S SYSTEM CAPACITY FACTORS?

A I have multiple concerns with the system load factors used in the Company's water CCOSS. First, the Company's system load factor on the maximum day, excluding fire, is based on an average over the three-year period from 2021 through 2023.[24] Instead, it should be based on the highest ratio of maximum day to average day demand over a specified period (which equates to the lowest system load factor that occurred during that time). In addition, the Company's system capacity factors are inconsistent with the customer class load characteristics suggested by the customer class maximum day and maximum hour peaking factors.

[24]MAWC's Response to Data Request MIEC 1-08. Attached as Schedule JAY-1 at pages 2-3.

Q WHY IS IT INAPPROPRIATE TO BASE THE SYSTEM MAX DAY CAPACITY FACTOR ON AN AVERAGE OF MULTIPLE YEARS?

A A water system is designed to provide water during a peak event for the life of the system (which could be 100 years), especially including any unusual outlier event that would cause a significant increase in peak day demand. Outlier events are typically caused by weather events that generate large increases in water demands by weather-sensitive customers. A maximum day system load factor based on an average over multiple years does not capture the additional capacity the utility must invest in to serve water demands that occur during abnormal or outlier weather periods.

In addition, the AWWA Manual M1, which Mr. McClellan purports to have followed, indicates that to develop peaking factors by class, one needs to identify the highest ratio of system maximum day demand to system average day demand that has occurred over a representative number of recent years.[25] This indicates the need for a single, high peak period demand ratio and not an average over multiple years.

Q HAVE YOU REVIEWED SYSTEM LOAD FACTOR DATA FROM PRIOR YEARS?

A Yes. I have calculated system load factors based on data from the Company's annual reports filed with the MPSC for 2014 through 2023. The results are summarized in Table JAY-3.

[25]AWWA Manual M1, Seventh Edition at page 373.

TABLE JAY-3

System Load Factors Based on Annual Reports

Line	Calendar Year	St. Louis County Annual Use (1)	Average Day (2)	Maximum Day (3)	Load Factor (4)
1	2023	55,476,658	151,991	239,105	63.6%
2	2022	56,580,607	155,015	266,138	58.2%
3	2021	54,373,635	148,969	266,726	55.9%
4	2020	54,974,609	150,615	257,552	58.5%
5	2019	51,796,211	141,907	237,096	59.9%
6	2018	58,838,297	161,201	259,938	62.0%
7	2017	59,448,569	162,873	288,308	56.5%
8	2016	56,912,342	155,924	272,425	57.2%
9	2015	56,062,090	153,595	227,048	67.6%
10	2014	58,571,172	160,469	255,167	62.9%

Sources and Notes:
Usage stated in thousand gallons.
Data reflects annual and maximum day volumes pumped into distribution mains.
Annual reports to the Missouri Public Service Commission.

As shown in the table, the overall system load factor in 2023 was relatively high, indicating a relatively steady rate of water use on the system that year. On the contrary, the load factor for 2021 was the lowest, and is more in line with the load characteristics suggested by the customer class peaking factors.

By using an average of three years, the Company skews its system load factor to the high side and allocates more costs on base usage in its CCOSS. This is not appropriate, as it does not recognize that extra-capacity demands (and the costs incurred to meet that demand) are driven by abnormal weather events such as hot, dry periods.

Q HOW ARE THE CUSTOMER CLASS CAPACITY FACTORS INCONSISTENT WITH THE COMPANY'S SYSTEM CAPACITY FACTOR?

A The Company's system capacity factors are overstated relative to the system capacity factors that are derived using maximum day demands based on its customer class peaking factors. This is shown in Table JAY-4 below.

TABLE JAY-4

Calculated Class Load Factors vs.
MAWC's System Load Factor (Max Day Excluding Fire)

Line	Description	Residential	Non-Residential	Rate J	Rate B	Contracts	Total
		(1)	(2)	(3)	(4)	(5)	(6)
1	Average Day Use (kgal)	62,670	21,555	13,593	4,971	7,541	110,331
2	Max Day Use (kgal)	125,430	45,715	20,102	8,010	10,873	210,130
3	Load Factor	50.0%	47.2%	67.6%	62.1%	69.4%	52.5%
4	MAWC Applied System Load Factor						64.9%

Source: Schedule MWM-1, page 24.

As shown in the table, the customer class peaking factors indicate a system load factor of about 52.5%, while the Company has applied a system load factor of 64.9% to its water CCOSS.

A similar issue exists regarding the system maximum hour capacity factor. This is shown in Table JAY-5.

TABLE JAY-5

Calculated Class Load Factors vs.
MAWC's System Load Factor (Max Hour Excluding Fire)[1,2]

Line	Description	Residential	Non-Residential	Rate J	Rate B	Total
		(1)	(2)	(3)	(4)	(5)
1	Average Hour Use (kgal)[3]	2,611	898	7	43	3,559
2	Max Hour Use (kgal)	11,680	2,323	11	69	14,083
3	Load Factor	22.4%	38.7%	60.8%	62.1%	25.3%
4	MAWC Applied System Load Factor					40.1%

Sources and Notes:
[1] Schedule MWM-1, page 24.
[2] Excludes the Contract class, because Schedule MWM-1 shows that maximum hour extra-capacity costs are not allocated this this class.
[3] Includes the application of the customer class distribution multipliers as proposed by MAWC.

As shown in Table JAY-5, the Company's customer class maximum hour peaking factors suggest a system max hour load factor of 25%, but the Company has used 40% in its water CCOSS.

The effect of overstated system capacity factors is to assign too much of the Company's cost of service to the base usage cost component, and not enough to the extra-capacity demand component.

Q DO YOU HAVE ANY OTHER CONCERNS WITH THE SYSTEM LOAD FACTORS USED IN THE COMPANY'S CCOSS?

A Yes. The system load factors have increased significantly since the last rate case, as shown in Table JAY-6. Specifically, the maximum day system load factor has increased from 55.6% in the last case to 64.9% in this case.

TABLE JAY-6

St. Louis County System Load Factors
Current Case vs. Prior Case

Line	Description	Current Case[1] (1)	Prior Case[2] (2)
1	System Load Factor (Max Day)	64.91%	55.60%
2	System Load Factor (Max Day w/Fire)	60.68%	52.29%
3	System Load Factor (Max Hour)	40.06%	37.38%
4	System Load Factor (Max Hour w/Fire)	33.43%	31.65%

Sources:
[1] Schedule MWM-1, page 24.
[2] Case No. WR-2022-0303, Schedule WES-2, Usage Statistics tab.

This increase in system load factor allocates a greater portion of costs to customer classes on base usage. The Company has confirmed that the increase in system load factor is the result of changing the three-year period used to calculate it between the last case and this case.[26]

This increase in system load factors since the last case unjustifiably shifts costs to large volume users relative to the last case and does not recognize that the system is designed to have enough capacity to meet demand during an outlier weather event, as described earlier in this testimony.

Q WHAT IS YOUR RECOMMENDATION WITH RESPECT TO THE SYSTEM LOAD FACTORS USED IN THE WATER CCOSS?

A I recommend the system load factors from the last rate case be applied to the Company's water CCOSS in this case. As shown in Table JAY-6, the maximum day

[26]MAWC's Response to Data Request MIEC 1-08. Attached as Schedule JAY-1 at pages 2-3.

system load factor from the last case of 55.6% is consistent with the system load factor that occurred in 2021, which is the lowest in the most recent 10-year period.

III.E. Transmission and Distribution Cost Allocation

Q WHAT IS YOUR CONCERN WITH RESPECT TO THE TRANSMISSION AND DISTRIBUTION COST CATEGORIES?

A MAWC's CCOSS model for St. Louis County identifies a Transmission function cost of service of $44,798,714, and a Distribution function cost of service of $164,489,841.[27] Thus, MAWC's water CCOSS shows that about 21.4% of the Transmission and Distribution cost of service is related to Transmission, and 78.6% is related to Distribution. Transmission costs are allocated by MAWC using Factor 3. Distribution costs have been allocated by MAWC using Factor 4, which reflects the distribution multiplier that I have previously discussed.

My concern is that MAWC has overstated the amount of costs that should be included in the Transmission function.

Q WHY DO YOU SAY THAT MAWC HAS OVERSTATED THE AMOUNT OF COSTS INCLUDED IN THE TRANSMISSION CATEGORY?

A MAWC's 2023 Annual Report shows that in St. Louis County, there are 2,316,816 feet of transmission mains and 22,162,714 feet of distribution mains installed on the system.[28] In other words, the 2023 Annual Report indicates that about 9.5% of the length of mains on MAWC's system are transmission mains, and the remaining 90.5% are distribution mains. This is inconsistent with the length of main for St. Louis County

[27]Schedule MWM-1 at page 1.
[28]Attached as Schedule JAY-3, page 3.

shown on Schedule MWM-1 at page 24, which is used to assign costs to the Transmission and Distribution functions in the CCOSS model.

According to the 2023 Annual Report, transmission mains include mains with diameters of size 16-inches and larger, while distribution mains consist of mains sized 12-inches and less. However, MAWC's CCOSS assigns a significant amount of depreciation expense and plant investment for distribution mains sized 10-inches to 16-inches to the Transmission function, instead of the Distribution function. Specifically, MAWC assigns $3.981 million of depreciation expense associated with mains sized 10-inches to 16-inches to the Transmission function, and $249.919 million of plant investment to the Transmission function.[29]

Q WHAT IS YOUR RECOMMENDATION TO CORRECT THIS ISSUE?

A The 2023 Annual Report indicates that about 13.7% of the length of main in the 10-inch to 16-inch category is transmission main, and the remaining 86.3% is distribution main. Thus, I recommend moving 86.3% of the depreciation expense and plant investment associated with the category of mains sized 10-inches to 16-inches from the Transmission function to the Distribution function. This change aligns the CCOSS model with the 2023 Annual Report, in terms of the classification of various sizes of mains between the Transmission and Distribution functions.

[29]Schedule MWM-1, pages 5 and 8, respectively.

III.F. Corrected CCOSS

Q HAVE YOU PREPARED A SCHEDULE THAT SHOWS THE RESULTS OF YOUR CORRECTIONS TO THE ST. LOUIS COUNTY WATER CCOSS MODEL?

A Yes. Schedule JAY-2 shows the results of my corrections to MAWC's CCOSS for St. Louis County.

Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS WITH RESPECT TO COST OF SERVICE AND REVENUE SPREAD.

A For the reasons described above, the Company's CCOSS models are inaccurate and require several corrections. I recommend allocating Source of Supply and Water Treatment costs to the Public Fire class. I recommend correcting the allocation of Purchased Power expense to use Factor 3 instead of Factor 1. I recommend correcting the distribution multiplier for the Rate J class in St. Louis County to 1.17%. I recommend applying the same system load factors to the St. Louis County water CCOSS as those used in the last rate case. Lastly, I recommend functionalizing 86.3% of the depreciation expense and plant investment in mains sized 10-inches to 16-inches as distribution rather than transmission.

Due to the inadequacy of MAWC's CCOSS in this case, it should not be relied upon as the basis for spreading the Company's claimed revenue deficiency across customer classes in this case. If MIEC's recommended corrections to the CCOSS are adopted, I recommend bringing the St. Louis County customer classes closer to cost of service based on the results of my corrected CCOSS model as described in Section II of my testimony.

IV. COMPANY'S PROPOSAL FOR CONSOLIDATED TARIFF PRICING

Q PLEASE DESCRIBE MAWC'S PROPOSAL FOR CONSOLIDATED TARIFF PRICING.

A As discussed in the Direct Testimony of Mr. McClellan, the Company is proposing to continue its movement toward CTP. Specifically, the Company proposes to equalize the volumetric rates for Rate A between St. Louis County and Non-St. Louis County customers to complete the process of CTP for those rates.[30] Mr. McClellan also notes that the Company is proposing to move Rate J rates closer together by equalizing the volumetric rates for Rate J for all usage less than or equal to 450,000 gallons.[31] For all Rate J usage above 450,000 gallons, the Company is proposing to increase the volumetric rate for St. Louis County customers by 150% of the increase for Non-St. Louis County customers.[32]

Q WHAT REASONS DOES MR. MCCLELLAN PROVIDE IN SUPPORT OF THE COMPANY'S PROPOSAL FOR CTP?

A Mr. McClellan's comments on CTP are limited to the Company's intention for rate design, and he does not offer specific evidence in support of continuing the movement toward CTP.

[30] Direct Testimony of Max McClellan at page 28, lines 3-5.
[31] *Id.* at lines 8-10.
[32] *Id.* at lines 10-12.

Q DO YOU SUPPORT THE COMPANY'S PROPOSAL TO CONTINUE MOVING TOWARD CTP?

A No. CTP violates cost-causation principles. I recommend the Commission reject any further consolidation of MAWC's districts and customer classes.

Q HOW WOULD CONSOLIDATION AFFECT THE TWO EXISTING DISTRICTS? ARE THE ST. LOUIS COUNTY AND NON-ST. LOUIS COUNTY DISTRICTS RECEIVING SERVICE UNDER SUBSTANTIALLY SIMILAR CONDITIONS OR CIRCUMSTANCES?

A No. A statewide consolidation would result in St. Louis County customers subsidizing customers outside of the county. As shown in Table JAY-1, MAWC proposes to shift about $8.7 million from the Non-St. Louis County district to customers inside of St. Louis County. In addition, St. Louis County customers use significantly higher levels of water than other customers.[33] A significant level of MAWC's proposed revenue requirement is collected through usage-based rates. Given their higher usage, St. Louis County customers would be paying a significant level of fixed costs incurred to serve customers outside of their district.

If rates are fully consolidated, current St. Louis County customers would be significantly subsidizing Non-St. Louis County customers. This would not reflect cost-causation.

[33]For example, St. Louis County's average monthly Residential use per customer is approximately 36% higher than Residential use per customer outside of St. Louis County. Average monthly use per customer for Commercial, Industrial, and Sales for Resale customers in St. Louis County exceeds the average monthly use of customers outside St. Louis County by about 8%.

Q WHY DID THE COMMISSION DETERMINE IN CASE NO. WR-2017-0285, THAT ST. LOUIS COUNTY SHOULD REMAIN A SEPARATE DISTRICT?

A In that case, the Commission rejected MAWC's proposal to implement consolidated pricing and instead utilize two districts. Specifically, the Commission found that:

> "Full consolidation would increase the potential for imprudent spending by MAWC, since the impact of increases will be shared by more customers. By combining Districts 2 and 3, the Company can still seek to acquire small struggling systems and make system improvements while avoiding rate shock."[34]

Q IS THE COMMISSION'S REASONING FROM THE PRIOR RATE CASE STILL VALID?

A Yes.

Q DOES CTP FOLLOW COST-CAUSATION PRINCIPLES?

A No. In general, the proposal for CTP ignores the principle of cost-causation. A particular water district's rates should be based on the costs that MAWC incurs to provide that district with service. MAWC's water system is not an integrated system. CTP ignores the fact that not all of MAWC's water districts are interconnected, and thus, the Company cannot serve all of its districts with the same group of water treatment plants or other plant investment.

[34]Case No. WR-2017-0285. Final Order at pages 30-31.

Q ARE YOU AWARE THAT CURRENTLY THE NON-ST. LOUIS COUNTY DISTRICT IS COMPOSED OF SEVERAL WATER DISTRICTS THAT HAVE ALREADY BEEN CONSOLIDATED FOR TARIFF PRICES?

A Yes. To be clear, I am not proposing the Commission reverse its previous decision to have two districts. However, the move to consolidation of the two remaining districts should be rejected.

Q PLEASE ELABORATE ON WHY CTP IGNORES COST-CAUSATION PRINCIPLES AND IS NOT REASONABLE.

A In general, consolidated pricing is inappropriate for several reasons. First, the districts are not interconnected to the same (or group of same) water treatment plants. Water treatment plants serving the districts are supplied from district-specific raw water sources (including both groundwater and surface water), which impact water treatment costs. In contrast to power plants in a geographically dispersed, but interconnected electric system, a water treatment plant in Joplin or St. Joseph, for example, cannot provide treated water to the St. Louis County district since those districts are not interconnected. The water treatment plants, distribution networks, pumping equipment and even the electric utilities serving the various MAWC territories are distinct across the state, and the various geographic characteristics of each MAWC service territory impact costs related to storage, pressure, pumping, chemicals and other costs associated with providing water service in those areas.

Second, consolidated pricing ignores the differences in costs of providing service in each non-interconnected water district including, but not limited to, water treatment and supply, labor force, and delivery. Consolidated pricing also ignores the differences in rate base investment that have occurred to provide water service in each

operating district. Consolidated pricing is inconsistent with traditional cost of service principles and ignores the concept of cost-causation. In essence, consolidated pricing results in price subsidies to customers in a high-cost district at great cost to customers in a low-cost district. For example, the cost to install water pipe in a district with rocky soil is higher than the cost to install water pipe in a district without rocky soil. Under consolidated pricing, the customers in the lower-cost district with non-rocky soil would subsidize a portion of the cost to install pipe in the higher-cost district with rocky soil.

Moreover, the unjust cross-subsidies created by consolidated pricing could erode the efficiency of the water system. These rate subsidies would erode the economic incentive for customers in high-cost districts to be more efficient in placing demands on the water utility because the prices they pay do not accurately reflect the cost of receiving water service. Hence, customers with subsidized prices may impose greater and less efficient demand on a high-cost district, which could cause greater cost at the high-cost district and increase customer subsidies required to bring that district's price down to the consolidated rate. To better reflect cost-causation, it is appropriate for the Company's rates in each district to be compensatory and free of subsidies.

Q PLEASE EXPLAIN HOW CONSOLIDATED PRICING CAN ERODE SYSTEM EFFICIENCY.

A Consolidated pricing could provide management teams in high-cost districts disincentives for cost control because those costs would be co-mingled with other, lower-cost districts across the state. This would reduce the incentive to manage water costs. As indicated, the Commission recognized this possibility in its decision in the

last case when it said, "[f]ull consolidation would increase the potential for imprudent spending by MAWC, since the impact of increases will be shared by more customers."

Q DO YOU HAVE ANY OTHER CONCERNS WITH CTP?

A Yes. CTP reduces the Company's incentive to perform due diligence before acquiring new water systems. The impact of acquiring a new system will be significantly reduced because all operation and maintenance costs will be consolidated into one tariff price. This may result in MAWC acquiring a system that disguises the impact of the acquisition on all customers. New systems could be acquired without adequate consideration as to whether the costs to operate those systems are economical since those costs would be rolled into existing rates under consolidated pricing. Besides, the Commission already recognized in a previous decision that the establishment of two districts provides sufficient incentive for the Company to acquire "small struggling systems."

Q HAS THE COMPANY ACQUIRED SMALL WATER SYSTEMS?

A Yes. MAWC has acquired many water systems over the years. Many of these acquisitions were made prior to rates being consolidated down to two districts. Clearly the creation of a consolidated state-wide rate was not needed for MAWC to acquire other small systems.

Q PLEASE STATE YOUR RECOMMENDATION WITH RESPECT TO CTP.

A I recommend that the Commission reject MAWC's proposal for further movement toward CTP. I recommend that the respective revenue requirement for St. Louis

County customers and Non-St. Louis County customers be recovered through proposed rates based on each district's respective cost of service.

V. RATE J RATE DESIGN

Q PLEASE DESCRIBE MAWC'S PROPOSED RATE DESIGN FOR RATE J.

A The Company proposes to modify Rate J by incorporating a declining block rate structure, where there would be one volumetric rate for all volumes at or below 450,000 gallons per month, and another lower rate for all volumes over 450,000 gallons per month.[35]

Q DO YOU SUPPORT THE COMPANY'S PROPOSAL TO MODIFY THE RATE J RATE DESIGN?

A I do not oppose the Company's proposed modification to the rate design for Rate J customers.

VI. REVENUE STABILIZATION MECHANISM

Q PLEASE DESCRIBE THE COMPANY'S PROPOSAL TO IMPLEMENT AN RSM IN THIS PROCEEDING.

A MAWC witness Charles Rea states that the Company's water systems are comprised of over 90% fixed costs (including its profit, or return for shareholders), but it recovers its cost of service under a rate design that produces approximately 74% of its revenue through variable charges.[36] He maintains that this mismatch in volumetric revenue relative to fixed costs makes the Company's ability to recover its fixed costs and invest

[35]Direct Testimony of Max McClellan at page 28, lines 21-23 through page 29, line 1.
[36]Direct Testimony of Charles Rea at page 41, lines 12-16.

in its system highly susceptible to impacts from weather and changes to customer usage patterns. He maintains the Company has little incentive to support efforts to reduce consumption of water by its customers as this reduces its ability to recover its fixed costs. He maintains the RSM would make the Company indifferent to support conservation efforts.

Mr. Rea describes the proposed RSM as being designed to align the Company's revenues going forward with the level of authorized revenue ultimately approved by the Commission. He explains that the RSM would compare authorized revenues to actual billed revenues for the Residential, Commercial, Other Public Authorities and Sale for Resale classes, and would accrue the difference (less the applicable change in production costs) to be either credited to customers or collected from customers at a later time.

Q IS THE COMPANY'S RSM PROPOSAL REASONABLE?

A No. The Company's proposed RSM engages in single issue ratemaking, as it only considers one component of operations and does not consider all relevant factors needed to establish its total revenue requirement. The Company's proposal for an RSM has not been demonstrated to be necessary to provide the Company an opportunity to fully recover its cost of service and earn a fair rate of return on infrastructure investments used to provide service. An RSM will also expose customers to bill adjustments outside of a rate case if revenues by class do not recover costs because of weather conditions or conservation by customers. Stated more specifically, an RSM would eliminate economic incentives for customers to undertake conservation-related investments on their own, to manage their water cost of service and to manage their household and/or business budgets.

Q ARE THERE COST OF SERVICE PRINCIPLES THAT THE COMPANY'S PROPOSED RSM DOES NOT SUPPORT?

A Yes. Customers' rates should only be changed to the extent there is proof that the Company's cost of service has changed. Imposing bill adjustments based on changes to class revenue from the last rate case ignores changes in cost of service. For example, if the Company collects less revenue from a class since its last case but its cost of providing service to that class decreases, then the Company may still fully recover its authorized rate of return from that class even if its revenue decreases.

The Company's proposal to adjust customer bills based on variation of revenues collected versus changes to the cost of service can result in unjust increases in customers' bills.

In addition, the Company's RSM, as I understand it, excludes increases in the number of customers from the analysis. This is concerning, as the addition of new customers to the system may allow the utility to collect new revenues which could offset increases in the Company's cost of providing service. The Company's proposed RSM does not recognize this, and thus, may impose unnecessary bill adjustments on customers. Further, conservation by customers could still result in a rate increase, which does not send the right price signal.

For all these reasons, the Company's proposed RSM is not necessary because: 1) the Company has not shown that it has been unable to earn its authorized ROE under traditional ratemaking mechanisms; 2) the RSM will unjustifiably expose customers to bill increases without consideration of changes in cost of service; and 3) fails to account for potential growth in revenue that could eliminate the need for changes to customers' bills. For all these reasons, changing rates and customer bills should only be done through a thorough analysis and review of the Company's revenue

collections, and changes in cost of service, to ensure the Company's rates, and the related bills to customers, are just and reasonable.

Q WOULD IMPLEMENTATION OF THE RSM CHANGE MAWC'S INCENTIVE TO OPERATE EFFICIENTLY?

A Yes. Under the existing ratemaking approach (i.e., without an RSM), if MAWC can manage its costs between rate cases, it keeps those cost savings as profits. If it also has an RSM it will earn even more, as the RSM guarantees a certain level of revenues, without considering changes in other cost of service components.

Further, if the RSM is approved, MAWC could impose bill increases on customers if production cost increases relative to its last rate case. This allows it to pass on cost increases via bill adjustments which protects the Company from a reduced earned ROE caused by increases in its production costs. This cost increase protection will erode MAWC's incentive to manage production costs in order to earn its authorized ROE. Hence, the RSM reduces the Company's incentive to effectively manage its cost of providing service and shifts the risk of operational inefficiencies from the Company to customers.

Q PLEASE SUMMARIZE YOUR RECOMMENDATIONS WITH RESPECT TO THE RSM.

A For the reasons described in this testimony, the proposed RSM should be rejected in its entirety. However, to the extent that it is approved, I agree with MAWC that it is reasonable not to apply the RSM to Industrial customers.

VII. PRODUCTION COST TRACKER

Q PLEASE DESCRIBE THE COMPANY'S PROPOSAL TO IMPLEMENT A PRODUCTION COST TRACKER.

A The Company proposes to implement a tracker mechanism for production costs (e.g., Fuel and Power, Chemicals, Waste Disposal, and Purchased Water), if the RSM as proposed by MAWC is not approved.[37] The Company claims that these costs are outside of the Company's control.[38]

Q WHAT IS YOUR RECOMMENDATION WITH RESPECT TO THE PROPOSED PRODUCTION COST TRACKER?

A The Company's proposed production cost tracker should be rejected. This proposal constitutes single-issue ratemaking and disrupts the balance of operating efficiency incentives present in normal rate of return ratemaking. This proposal shifts regulatory risk to customers and allows the Company to recover certain components of its revenue requirement on a piecemeal basis, outside of a full base rate case, which undermines the Commission's ability to evaluate the sufficiency of the Company's rates based on the totality of the utility's costs and revenues for a given test year.

Further, the costs proposed for inclusion in the tracker mechanism are not volatile, unpredictable, or largely outside of the Company's control such that they warrant being tracked. The Company has some degree of control of production costs through contracts for the associated products. These costs are normal operating costs of MAWC and should not qualify for special deferral accounting.

[37] Direct Testimony of Brian LaGrand at page 32, lines 6-9, 11, and 22 through page 33, lines 1-3.

[38] *Id.* at page 33, lines 6-7.

Lastly, the Company has not shown that it would not have a reasonable opportunity to earn its authorized return without such a tracker mechanism.

Q DOES THIS CONCLUDE YOUR DIRECT/REBUTTAL TESTIMONY?

A Yes, it does.

Qualifications of Jessica A. York

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Jessica York. My business address is 16690 Swingley Ridge Road, Suite 140, Chesterfield, MO 63017.

Q PLEASE STATE YOUR OCCUPATION.

A I am a consultant in the field of public utility regulation and a Principal with the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

Q PLEASE IDENTIFY THE JURISDICTIONS IN WHICH YOU HAVE PREVIOUSLY SPONSORED TESTIMONY.

A I have sponsored expert testimony in front of the Idaho Public Utilities Commission, the Illinois Commerce Commission, Indiana Utility Regulatory Commission, the Iowa Utilities Commission, the Kansas Corporation Commission, the Michigan Public Service Commission, the Minnesota Public Utilities Commission, the Missouri Public Service Commission, the Public Utilities Commission of Nevada, the Oklahoma Corporation Commission, the Virginia State Corporation Commission, and the Public Service Commission of Wisconsin.

Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EMPLOYMENT EXPERIENCE.

A I graduated from Truman State University in 2008 where I received my Bachelor of Science Degree in Mathematics with minors in Statistics and Actuarial Science. I earned my Master of Business Administration Degree with a concentration in Finance from the University of Missouri-St. Louis in 2014.

I joined BAI in 2011 as an analyst. Then, in March 2015, I joined the consulting team of BAI.

I have worked in various electric, natural gas and water and wastewater regulatory proceedings addressing cost of capital, sales revenue forecasts, revenue requirement assessments, class cost of service studies, rate design, and various policy issues. I have also conducted competitive power and natural gas solicitations on behalf of large electric and natural gas users, have assisted those large power and natural gas users in developing procurement plans and strategies, assisted in competitive contract negotiations, and power and natural gas contract supply administration. In the regulated arena, I have evaluated cost of service studies and rate designs proffered by other parties in cases for various utilities, including in Idaho, Illinois, Indiana, Kansas, Wisconsin and others. I have conducted bill audits, rate forecasts and tariff rate optimization studies.

I have also provided support to clients with facilities in deregulated markets, including drafting supply requests for proposals, evaluating supply bids, and auditing competitive supply bills. I have also prepared and presented to clients reports that monitor the electric market and recommend strategic hedging transactions.

BAI was formed in April 1995. BAI and its predecessor firm have participated in more than 700 regulatory proceedings in forty states and Canada.

BAI provides consulting services in the economic, technical, accounting, and financial aspects of public utility rates and in the acquisition of utility and energy services through RFPs and negotiations, in both regulated and unregulated markets. Our clients include large industrial and institutional customers, some utilities and, on occasion, state regulatory agencies. We also prepare special studies and reports, forecasts, surveys and siting studies, and present seminars on utility-related issues.

In general, we are engaged in energy and regulatory consulting, economic analysis and contract negotiation.

In addition to our main office in St. Louis, the firm also has branch offices in Corpus Christi, Texas; Louisville, Kentucky and Phoenix, Arizona.

515914

MIEC 1-15

DATA INFORMATION REQUEST
Missouri-American Water Company
WR-2024-0320
General Rate Case

Requested From: Ashley M. Randell

Date Requested: 10/18/2024

Information Requested:

"Please refer to Schedule MWM-1, page 1 of 29.
a. Please explain why Source of Supply expenses have not been allocated to the Public Fire class.
b. Please explain why Water Treatment costs have not been allocated to the Public Fire class.
c. Please confirm that potable water is used to serve the Public Fire class. If not confirmed, please provide a detailed explanation supporting the response."

Requested By: Jaime N. Reifsteck (jreifsteck@chgolaw.com)

Information Provided:

a. It would be appropriate to allocate some portion of the fixed costs associated with Source of Supply costs to fire service customer classes, although many water cost of services analyses do not do so because Source of Supply costs are largely associated with providing volumes of water over the long-term and not for emergency situations.

b. Water Treatment costs were not allocated to fire service classes because water treatment costs are incurred primarily to provide potable water service, and potable water is not generally needed for firefighting purposes.

c. Potable water is used to serve the Public Fire class.

Responsible Witness: Max W. McClellan

MIEC 1-08

DATA INFORMATION REQUEST
Missouri-American Water Company
WR-2024-0320
General Rate Case

Requested From: Ashley M. Randell

Date Requested: 10/18/2024

Information Requested:

"Please refer to Case No. WR-2022-0303, Mr. Selinger's direct testimony, Schedule WES-1, Tab: Usage Statistics, page 2 of 2.
a. Please confirm that the system load factor (maximum day excluding fire) was 0.5560. If not confirmed, please provide a detailed explanation supporting the response.
b. Please confirm that in the current case, Schedule MWM-1, page 24 shows a system load factor (maximum day excluding fire) of 0.6491. If not confirmed, please provide a detailed explanation supporting the response.
c. Please provide a detailed explanation describing the drivers of the increase in system load factor (maximum day excluding fire) for St. Louis County between the last rate case, and the current rate case."

Requested By: Jaime N. Reifsteck (jreifsteck@chgolaw.com)

Information Provided:

On October 28, 2024, the Company objected to data request 1-8c because the responsive information is not relevant to the subject proceeding, not proportional to the needs of the case considering the totality of the circumstances, nor reasonably calculated to lead to the discovery of admissible evidence in that it requests a comparison of data between the last rate case, and the current rate case, while the Commission will use a test year of the 12 months ending December 31, 2023 and a true-up period of the 12 months ending December, 31, 2024, and consider propose specific (discrete) adjustments, to set rates in this case.

Subject to and without waiving the objection, please see the responses below.

a. The system load factor in Schedule WES-1 of Case No. WR-2022-0303 was 0.5560.

b. Schedule MWM-1 of the current case shows a system load factor of 0.6491.

c. In Case No. WR-2022-0303, the system load factor was the result of dividing the average daily system deliveries of the years 2019, 2020, and 2021 by the maximum of the system deliveries in 2021. This calculation was 139,868,602 / 251,565,000 = 0.5560.

In the current case, the system load factor was the result of dividing the average daily system deliveries of the years 2021, 2022, and 2023 by the maximum of the daily system deliveries in 2023. This calculation is 145,715,632 / 224,493,180 = 0.6491.

The daily consumption patterns of multiple customer classes were likely interrupted or even permanently changed as the result of the 2020 public health emergency and the many impacts of that health emergency including supply chain interruptions, remote/hybrid work, remote schooling, and temporary or permanent business closures.

Responsible Witness: Max W. McClellan

MIEC St. Louis County Class Cost of Service Study
Case No: WR-2024-0320, SR 2024-0321
Tab: Summary

Missouri-American Water Company
Class Cost of Service Study - Functional Allocators to Customer Class
Case No: WR-2024-0320, SR-2024-0321

	Functional COS	Alloc	Description	Residential	Non-Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Variance
Source of Supply Expense												
Fixed	$ 15,243,185	3	Base/Extra Daily w/ Fire	$ 8,609,515	$ 3,128,228	$ 1,406,420	$ 557,107	$ 762,168	$ 174,607	$ 605,138	$ 15,243,185	$ -
Variable	$ 448,716	1	Total Usage	$ 254,549	$ 87,551	$ 55,212	$ 20,191	$ 30,631	$ 581	$ -	$ 448,716	$ -
Power and Pumping Expenses												
Fixed	$ 27,149,791	3	Base/Extra Daily w/ Fire	$ 15,334,495	$ 5,571,719	$ 2,504,990	$ 992,268	$ 1,357,505	$ 310,995	$ 1,077,818	$ 27,149,791	$ -
Variable	$ (1,566)	1	Total Usage	$ (888)	$ (305)	$ (193)	$ (70)	$ (107)	$ (2)	$ -	$ (1,566)	$ -
Water Treatment												
Fixed	$ 50,376,466	3	Base/Extra Daily w/ Fire	$ 28,453,172	$ 10,338,331	$ 4,648,011	$ 1,841,155	$ 2,518,853	$ 577,052	$ 1,999,893	$ 50,376,466	$ -
Variable	$ 16,572,804	1	Total Usage	$ 9,401,468	$ 3,233,588	$ 2,039,204	$ 745,747	$ 1,131,319	$ 21,477	$ -	$ 16,572,804	$ -
Transmission	$ 19,794,799	3	Base/Extra Daily w/ Fire	$ 11,180,316	$ 4,062,317	$ 1,826,378	$ 723,459	$ 989,751	$ 226,745	$ 785,833	$ 19,794,799	$ -
Distribution	$ 189,493,756	4	Base/Extra Hourly w/ Fire	$ 139,285,804	$ 30,039,657	$ 155,639	$ 997,576	$ -	$ 4,266,300	$ 14,748,780	$ 189,493,756	$ -
Storage	$ 2,928,346	5	Storage	$ 1,911,516	$ 386,742	$ 158,667	$ 56,937	$ 77,863	$ 75,840	$ 260,782	$ 2,928,346	$ -
Meters	$ 52,285,566	8	Meters	$ 40,355,087	$ 10,982,530	$ 947,949	$ -	$ -	$ -	$ -	$ 52,285,566	$ -
Services	$ 36,925,635	9	Services	$ 29,212,576	$ 4,075,438	$ 120,499	$ -	$ -	$ 3,517,121	$ -	$ 36,925,635	$ -
Customers	$ 17,939,480	10	Customers	$ 16,590,643	$ 946,836	$ 8,212	$ 205	$ 103	$ 393,481	$ -	$ 17,939,480	$ -
Hydrants	$ 18,093,354	7	Hydrants	$ -	$ -	$ -	$ -	$ -	$ 20,939	$ 18,072,415	$ 18,093,354	$ -
Total	**$ 447,250,332**			**$ 300,588,255**	**$ 72,852,633**	**$ 13,870,988**	**$ 5,934,575**	**$ 6,868,086**	**$ 9,585,138**	**$ 37,550,658**	**$ 447,250,332**	$ -
				67.21%	16.29%	3.10%	1.33%	1.54%	2.14%	8.40%	100.00%	
Rate Year Water Revenue	$ 313,638,057			$ 219,196,203	$ 68,531,934	$ 11,296,485	$ 4,931,008	$ 4,684,084	$ 4,998,343	$ -	$ 313,638,057	$ -
Other Water Operating Revenues	$ 2,879,768											
Increase	$ 133,612,275			$ 81,392,052	$ 4,320,699	$ 2,574,503	$ 1,003,567	$ 2,184,001	$ 4,586,794	$ 37,550,658	$ 133,612,274	$ (1)
Percent Increase	42.6%			37.13%	6.30%	22.79%	20.35%	46.63%	91.77%	0.00%	42.60%	
				0.87	0.15	0.53	0.48	1.09	2.15	-	1.00	
Rate Year Revenue				$ 219,196,203	$ 68,531,934	$ 11,296,485	$ 4,931,008	$ 4,684,084	$ 4,998,343	$ -	$ 313,638,057	
Cost of Service Increase				$ 81,392,052	$ 4,320,699	$ 2,574,503	$ 1,003,567	$ 2,184,001	$ 4,586,794	$ 37,550,658	$ 133,612,274	
Allocation of Public Fire				$ 28,982,379	$ 7,887,477	$ 680,802				$ (37,550,658)	$ -	
Revenue Target				$ 329,570,633	$ 80,740,110	$ 14,551,790	$ 5,934,575	$ 6,868,085	$ 9,585,137	$ -	$ 447,250,331	
Percent Increase				50.4%	17.8%	28.8%	20.4%	46.6%	91.8%	0.0%	42.6%	
Including Increase	$ 450,130,101											
Workpaper	450,130,101											
	$ (0)											
Variable Cost	$ 17,019,954											

Missouri-American Water Company
Class Cost of Service Study - Account Detail
Case No: WR-2024-0320, SR-2024-0321

	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
Source of Supply Expense															
Operating Expense															
Purchased Water	$ 449,333	A	Source of Supply	$ 449,333	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 449,333	$ -
Fuel and Power	$ 4,759,803	A	Source of Supply	$ 4,759,803	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,759,803	$ -
Salaries and Wages	$ 4,894	A	Source of Supply	$ 4,894	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,894	$ -
Contract Services - Other	$ 302,230	A	Source of Supply	$ 302,230	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 302,230	$ -
Building Maintenance and Services	$ 439,514	A	Source of Supply	$ 439,514	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 439,514	$ -
Miscellaneous	$ 327	A	Source of Supply	$ 327	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 327	$ -
Telelcommunications	$ 6,580	A	Source of Supply	$ 6,580	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,580	$ -
Postage	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office supplies and services	$ 7,237	A	Source of Supply	$ 7,237	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,237	$ -
Materials & Supplies	$ 6,731	A	Source of Supply	$ 6,731	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,731	$ -
Rents-Property	$ 5,770	A	Source of Supply	$ 5,770	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,770	$ -
Rents-Equipment	$ 5,455	A	Source of Supply	$ 5,455	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,455	$ -
Transportation	$ 1,911	A	Source of Supply	$ 1,911	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,911	$ -
	$ 5,989,786			$ 5,989,786	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,989,786	$ -
Maintenance Expense															
Salaries and Wages	$ 205,668	A	Source of Supply	$ 205,668	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 205,668	$ -
Materials & Supplies	$ 76,176	A	Source of Supply	$ 76,176	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 76,176	$ -
Transportation	$ 4,911	A	Source of Supply	$ 4,911	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,911	$ -
Miscellaneous	$ 14,158	A	Source of Supply	$ 14,158	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,158	$ -
Contract Services - Eng	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contract Services - Other	$ 103,465	A	Source of Supply	$ 103,465	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 103,465	$ -
	$ 404,378			$ 404,378	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 404,378	$ -
Total SS Expense	**$ 6,394,164**			**$ 6,394,164**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 6,394,164**	**$ -**
Power and Pumping Expenses															
Operating Expense															
Fuel and Power	$ 3,404,675	B	Pumping	$ -	$ 3,404,675	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,404,675	$ -
Salaries and Wages	$ 1,520,857	B	Pumping	$ -	$ 1,520,857	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,520,857	$ -
Employee Benefits	$ 1,602	B	Pumping	$ -	$ 1,602	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,602	$ -
Building Maintenance and Services	$ 3,770	B	Pumping	$ -	$ 3,770	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,770	$ -
Miscellaneous	$ 3,523	B	Pumping	$ -	$ 3,523	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,523	$ -
Office supplies and services	$ 192	B	Pumping	$ -	$ 192	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 192	$ -
Materials & Supplies	$ 12,263	B	Pumping	$ -	$ 12,263	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,263	$ -
Rents-Equipment	$ 4,852	B	Pumping	$ -	$ 4,852	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,852	$ -
Transportation	$ 136,768	B	Pumping	$ -	$ 136,768	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 136,768	$ -
	$ 5,088,502			$ -	$ 5,088,502	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,088,502	$ -
Maintenance Expense															
Salaries and Wages	$ 622,608	B	Pumping	$ -	$ 622,608	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 622,608	$ -
Transportation	$ 7,261	B	Pumping	$ -	$ 7,261	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,261	$ -
Contract Services - Eng	$ 9,407	B	Pumping	$ -	$ 9,407	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,407	$ -
Contract Services - Other	$ 551,245	B	Pumping	$ -	$ 551,245	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 551,245	$ -
Miscellaneous	$ 3,075	B	Pumping	$ -	$ 3,075	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,075	$ -
Materials & Supplies	$ 129,037	B	Pumping	$ -	$ 129,037	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 129,037	$ -
	$ 1,322,633			$ -	$ 1,322,633	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,322,633	$ -
Total Pumping Expense	**$ 6,411,135**			**$ -**	**$ 6,411,135**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 6,411,135**	**$ -**
Water Treatment															
Operating Expense															
Fuel and Power	$ 701,440	C	Water Treatment	$ -	$ -	$ 701,440	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 701,440	$ -
Chemicals	$ 16,120,089	C	Water Treatment	$ -	$ -	$ 16,120,089	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,120,089	$ -
Waste Disposal	$ 456,115	C	Water Treatment	$ -	$ -	$ 456,115	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 456,115	$ -
Salaries and Wages	$ 3,318,043	C	Water Treatment	$ -	$ -	$ 3,318,043	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,318,043	$ -
Employee Benefits	$ 30	C	Water Treatment	$ -	$ -	$ 30	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 30	$ -
Contract Services - Eng	$ 20,736	C	Water Treatment	$ -	$ -	$ 20,736	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,736	$ -
Contract Services - Other	$ 192,850	C	Water Treatment	$ -	$ -	$ 192,850	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 192,850	$ -
Building Maintenance and Services	$ 44,122	C	Water Treatment	$ -	$ -	$ 44,122	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 44,122	$ -
Miscellaneous	$ 268,777	C	Water Treatment	$ -	$ -	$ 268,777	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 268,777	$ -
Telelcommunications	$ 6,652	C	Water Treatment	$ -	$ -	$ 6,652	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,652	$ -
Postage	$ -	C	Water Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office supplies and services	$ 28,340	C	Water Treatment	$ -	$ -	$ 28,340	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,340	$ -
Materials & Supplies	$ 46,653	C	Water Treatment	$ -	$ -	$ 46,653	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 46,653	$ -
Rents-Property	$ 127	C	Water Treatment	$ -	$ -	$ 127	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 127	$ -
Rents-Equipment	$ (129,610)	C	Water Treatment	$ -	$ -	$ (129,610)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (129,610)	$ -
Transportation	$ 4,203	C	Water Treatment	$ -	$ -	$ 4,203	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,203	$ -
	$ 21,078,568			$ -	$ -	$ 21,078,568	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,078,568	$ -

Missouri-American Water Company
Class Cost of Service Study - Account Detail
Case No: WR-2024-0320, SR-2024-0321

	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
Maintenance Expense															
Salaries and Wages	$ 1,370,672	C	Water Treatment	$ -	$ -	$ 1,370,672	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,370,672	$ -
Transportation	$ 13,840	C	Water Treatment	$ -	$ -	$ 13,840	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,840	$ -
Contract Services - Eng	$ 28,475	C	Water Treatment	$ -	$ -	$ 28,475	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 28,475	$ -
Contract Services - Other	$ 453,996	C	Water Treatment	$ -	$ -	$ 453,996	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 453,996	$ -
Miscellaneous	$ 61,296	C	Water Treatment	$ -	$ -	$ 61,296	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 61,296	$ -
Materials & Supplies	$ 798,688	C	Water Treatment	$ -	$ -	$ 798,688	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 798,688	$ -
	$ 2,726,967			$ -	$ -	$ 2,726,967	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,726,967	$ -
Total Water Treatment Expense	**$ 23,805,535**			**$ -**	**$ -**	**$ 23,805,535**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 23,805,535**	**$ -**
Transmission & Distribution Expense															
Operating Expense															
Fuel and Power	$ 556,928	1	T/D Oper. Expense	$ -	$ -	$ -	$ 35,182	$ 336,548	$ -	$ 185,199	$ -	$ -	$ -	$ 556,928	$ -
Salaries and Wages	$ 6,153,428	1	T/D Oper. Expense	$ -	$ -	$ -	$ 388,717	$ 3,718,471	$ -	$ 2,046,240	$ -	$ -	$ -	$ 6,153,428	$ -
Employee Benefits	$ 6,794	1	T/D Oper. Expense	$ -	$ -	$ -	$ 429	$ 4,106	$ -	$ 2,259	$ -	$ -	$ -	$ 6,794	$ -
Contract Services - Eng	$ 18,139	1	T/D Oper. Expense	$ -	$ -	$ -	$ 1,146	$ 10,961	$ -	$ 6,032	$ -	$ -	$ -	$ 18,139	$ -
Contract Services - Other	$ 2,560,216	1	T/D Oper. Expense	$ -	$ -	$ -	$ 161,731	$ 1,547,120	$ -	$ 851,365	$ -	$ -	$ -	$ 2,560,216	$ -
Building Maintenance and Services	$ 125,077	1	T/D Oper. Expense	$ -	$ -	$ -	$ 7,901	$ 75,583	$ -	$ 41,593	$ -	$ -	$ -	$ 125,077	$ -
Miscellaneous	$ 110,255	1	T/D Oper. Expense	$ -	$ -	$ -	$ 6,965	$ 66,626	$ -	$ 36,664	$ -	$ -	$ -	$ 110,255	$ -
Telelcommunications	$ 40,924	1	T/D Oper. Expense	$ -	$ -	$ -	$ 2,585	$ 24,730	$ -	$ 13,609	$ -	$ -	$ -	$ 40,924	$ -
Postage	$ -	1	T/D Oper. Expense	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office supplies and services	$ 72,133	1	T/D Oper. Expense	$ -	$ -	$ -	$ 4,557	$ 43,590	$ -	$ 23,987	$ -	$ -	$ -	$ 72,133	$ -
Materials & Supplies	$ 406,122	1	T/D Oper. Expense	$ -	$ -	$ -	$ 25,655	$ 245,416	$ -	$ 135,050	$ -	$ -	$ -	$ 406,122	$ -
Rents-Property	$ 4,609	1	T/D Oper. Expense	$ -	$ -	$ -	$ 291	$ 2,785	$ -	$ 1,533	$ -	$ -	$ -	$ 4,609	$ -
Rents-Equipment	$ 63,597	1	T/D Oper. Expense	$ -	$ -	$ -	$ 4,017	$ 38,431	$ -	$ 21,148	$ -	$ -	$ -	$ 63,597	$ -
Transportation	$ 1,205,033	1	T/D Oper. Expense	$ -	$ -	$ -	$ 76,123	$ 728,193	$ -	$ 400,718	$ -	$ -	$ -	$ 1,205,033	$ -
	$ 11,323,255			$ -	$ -	$ -	$ 715,298	$ 6,842,560	$ -	$ 3,765,396	$ -	$ -	$ -	$ 11,323,255	$ -
Maintenance Expense															
Salaries and Wages	$ 1,752,724	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 55,318	$ 529,169	$ 73,682	$ 156,965	$ 340,494	$ -	$ 597,096	$ 1,752,724	$ -
Contract Services - Eng	$ 77,273	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 2,439	$ 23,330	$ 3,248	$ 6,920	$ 15,012	$ -	$ 26,324	$ 77,273	$ -
Contract Services - Other	$ 3,638,470	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 114,833	$ 1,098,500	$ 152,956	$ 325,843	$ 706,830	$ -	$ 1,239,508	$ 3,638,470	$ -
Transportation	$ 418,594	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 13,211	$ 126,379	$ 17,597	$ 37,487	$ 81,318	$ -	$ 142,601	$ 418,594	$ -
Miscellaneous	$ 625,128	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 19,730	$ 188,734	$ 26,279	$ 55,983	$ 121,441	$ -	$ 212,961	$ 625,128	$ -
Materials & Supplies	$ 1,065,502	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 33,628	$ 321,689	$ 44,792	$ 95,421	$ 206,990	$ -	$ 362,982	$ 1,065,502	$ -
	$ 7,577,692			$ -	$ -	$ -	$ 239,159	$ 2,287,800	$ 318,554	$ 678,620	$ 1,472,085	$ -	$ 2,581,473	$ 7,577,692	$ -
Total T&D Expense	**$ 18,900,946**			**$ -**	**$ -**	**$ -**	**$ 954,457**	**$ 9,130,360**	**$ 318,554**	**$ 4,444,017**	**$ 1,472,085**	**$ -**	**$ 2,581,473**	**$ 18,900,946**	**$ -**
General Mains Expense															
Operations															
Salaries and Wages	$ 1,176,244	K	Mains	$ -	$ -	$ -	$ 111,323	$ 1,064,921	$ -	$ -	$ -	$ -	$ -	$ 1,176,244	$ -
Miscellaneous	$ 1,659	K	Mains	$ -	$ -	$ -	$ 157	$ 1,502	$ -	$ -	$ -	$ -	$ -	$ 1,659	$ -
	$ 1,177,903			$ -	$ -	$ -	$ 111,480	$ 1,066,423	$ -	$ -	$ -	$ -	$ -	$ 1,177,903	$ -
Maintenance Expense															
Salaries and Wages	$ 286,942	K	Mains	$ -	$ -	$ -	$ 27,157	$ 259,785	$ -	$ -	$ -	$ -	$ -	$ 286,942	$ -
Miscellaneous	$ 6,755	K	Mains	$ -	$ -	$ -	$ 639	$ 6,116	$ -	$ -	$ -	$ -	$ -	$ 6,755	$ -
	$ 293,697			$ -	$ -	$ -	$ 27,796	$ 265,901	$ -	$ -	$ -	$ -	$ -	$ 293,697	$ -
General Mains Expense	**$ 1,471,600**			**$ -**	**$ -**	**$ -**	**$ 139,277**	**$ 1,332,324**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 1,471,600**	**$ -**
Storage Expense															
Operating Expense															
Salaries and Wages	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Maintenance Expense															
Salaries and Wages	$ 37,024	F	Storage	$ -	$ -	$ -	$ -	$ -	$ 37,024	$ -	$ -	$ -	$ -	$ 37,024	$ -
Miscellaneous	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ 37,024			$ -	$ -	$ -	$ -	$ -	$ 37,024	$ -	$ -	$ -	$ -	$ 37,024	$ -
Total Storage Expense	**$ 37,024**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 37,024**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 37,024**	**$ -**
Meter Expense															
Operating Expense															
Salaries and Wages	$ 581,233	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 581,233	$ -	$ -	$ -	$ 581,233	$ -
Miscellaneous	$ 5,609	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,609	$ -	$ -	$ -	$ 5,609	$ -
	$ 586,842			$ -	$ -	$ -	$ -	$ -	$ -	$ 586,842	$ -	$ -	$ -	$ 586,842	$ -
Maintenance Expense															
Salaries and Wages	$ 78,552	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 78,552	$ -	$ -	$ -	$ 78,552	$ -
Miscellaneous	$ 321	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 321	$ -	$ -	$ -	$ 321	$ -
	$ 78,873			$ -	$ -	$ -	$ -	$ -	$ -	$ 78,873	$ -	$ -	$ -	$ 78,873	$ -

Missouri-American Water Company
Class Cost of Service Study - Account Detail
Case No: WR-2024-0320, SR-2024-0321

	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
Total Meter Expense	**$ 665,715**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 665,715**	**$ -**	**$ -**	**$ -**	**$ 665,715**	**$ -**
Service Expense															
Operating Expense															
Salaries and Wages	$ -	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous	$ -	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Maintenance Expense															
Salaries and Wages	$ 172,272	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 172,272	$ -	$ -	$ 172,272	$ -
Miscellaneous	$ (1,179)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (1,179)	$ -	$ -	$ (1,179)	$ -
	$ 171,094			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 171,094	$ -	$ -	$ 171,094	$ -
Total Service Expense	**$ 171,094**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 171,094**	**$ -**	**$ -**	**$ 171,094**	**$ -**
Hydrant Expense															
Maintenance Expense															
Salaries and Wages	$ 299,611	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 299,611	$ 299,611	$ -
Miscellaneous	$ 422	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 422	$ 422	$ -
	$ 300,033			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 300,033	$ 300,033	$ -
Hydrant Expense	**$ 300,033**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 300,033**	**$ 300,033**	**$ -**
Customer Accounts															
Fuel and Power	$ 1,643	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,643	$ -	$ 1,643	$ -
Salaries and Wages	$ 674,071	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 674,071	$ -	$ 674,071	$ -
Contract Services - Other	$ 201,390	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 201,390	$ -	$ 201,390	$ -
Building Maintenance and Services	$ 12,428	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,428	$ -	$ 12,428	$ -
Miscellaneous	$ -	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Telelcommunications	$ 3,722	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,722	$ -	$ 3,722	$ -
Office supplies and services	$ 3,014	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,014	$ -	$ 3,014	$ -
Materials & Supplies	$ 90,815	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 90,815	$ -	$ 90,815	$ -
Transportation	$ 259	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 259	$ -	$ 259	$ -
Uncollectible Accounts	$ 4,551,592	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,551,592	$ -	$ 4,551,592	$ -
Customer accounting, other	$ 1,317,366	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,317,366	$ -	$ 1,317,366	$ -
	$ 6,856,299			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,856,299	$ -	$ 6,856,299	$ -
Total Customer Accounting Expense	**$ 6,856,299**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 6,856,299**	**$ -**	**$ 6,856,299**	**$ -**
Administrative & General Expense															
Operating Expense															
Fuel and Power	$ 20,372	3	Fixed O&M	$ 617	$ 1,566	$ 3,399	$ 570	$ 5,448	$ 185	$ 2,661	$ 856	$ 3,570	$ 1,500	$ 20,372	$ -
Salaries and Wages	$ 11,986,734	4	Labor	$ 138,262	$ 1,407,470	$ 3,078,766	$ 382,498	$ 3,658,987	$ 72,693	$ 1,879,934	$ 336,699	$ 442,617	$ 588,808	$ 11,986,734	$ -
Employee Benefits	$ 6,477,503	4	Labor	$ 74,715	$ 760,582	$ 1,663,732	$ 206,698	$ 1,977,278	$ 39,283	$ 1,015,896	$ 181,949	$ 239,186	$ 318,185	$ 6,477,503	$ -
Support Services Costs - Employee	$ 15,296,573	4	Labor	$ 176,439	$ 1,796,108	$ 3,928,890	$ 488,116	$ 4,669,326	$ 92,766	$ 2,399,031	$ 429,671	$ 564,835	$ 751,392	$ 15,296,573	$ -
Support Services Costs - Admin	$ 15,372,550	3	Fixed O&M	$ 465,642	$ 1,181,352	$ 2,565,055	$ 429,769	$ 4,111,184	$ 139,720	$ 2,007,807	$ 645,667	$ 2,694,099	$ 1,132,253	$ 15,372,550	$ -
Contract Services - Eng	$ 14,478	3	Fixed O&M	$ 439	$ 1,113	$ 2,416	$ 405	$ 3,872	$ 132	$ 1,891	$ 608	$ 2,537	$ 1,066	$ 14,478	$ -
Contract Services - Other	$ 2,413,327	3	Fixed O&M	$ 73,101	$ 185,460	$ 402,686	$ 67,469	$ 645,412	$ 21,935	$ 315,204	$ 101,363	$ 422,945	$ 177,752	$ 2,413,327	$ -
Building Maintenance and Services	$ 211,946	3	Fixed O&M	$ 6,420	$ 16,288	$ 35,365	$ 5,925	$ 56,682	$ 1,926	$ 27,682	$ 8,902	$ 37,144	$ 15,611	$ 211,946	$ -
Miscellaneous	$ 1,469,220	3	Fixed O&M	$ 44,503	$ 112,907	$ 245,153	$ 41,075	$ 392,923	$ 13,354	$ 191,895	$ 61,709	$ 257,487	$ 108,214	$ 1,469,220	$ -
Telelcommunications	$ 1,213,837	3	Fixed O&M	$ 36,768	$ 93,281	$ 202,540	$ 33,935	$ 324,625	$ 11,032	$ 158,539	$ 50,983	$ 212,730	$ 89,404	$ 1,213,837	$ -
Postage	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office supplies and services	$ 461,013	3	Fixed O&M	$ 13,964	$ 35,428	$ 76,924	$ 12,889	$ 123,292	$ 4,190	$ 60,213	$ 19,363	$ 80,794	$ 33,956	$ 461,013	$ -
Materials & Supplies	$ 144,743	3	Fixed O&M	$ 4,384	$ 11,123	$ 24,152	$ 4,047	$ 38,709	$ 1,316	$ 18,905	$ 6,079	$ 25,367	$ 10,661	$ 144,743	$ -
Communications	$ 51,398	3	Fixed O&M	$ 1,557	$ 3,950	$ 8,576	$ 1,437	$ 13,746	$ 467	$ 6,713	$ 2,159	$ 9,008	$ 3,786	$ 51,398	$ -
Rents-Property	$ 258,765	3	Fixed O&M	$ 7,838	$ 19,886	$ 43,177	$ 7,234	$ 69,203	$ 2,352	$ 33,797	$ 10,868	$ 45,350	$ 19,059	$ 258,765	$ -
Rents-Equipment	$ 26,092	3	Fixed O&M	$ 790	$ 2,005	$ 4,354	$ 729	$ 6,978	$ 237	$ 3,408	$ 1,096	$ 4,573	$ 1,922	$ 26,092	$ -
Transportation	$ 1,152,013	3	Fixed O&M	$ 34,895	$ 88,530	$ 192,224	$ 32,207	$ 308,091	$ 10,471	$ 150,464	$ 48,386	$ 201,895	$ 84,851	$ 1,152,013	$ -
Regulatory Expense	$ 441,971	3	Fixed O&M	$ 13,388	$ 33,965	$ 73,747	$ 12,356	$ 118,199	$ 4,017	$ 57,726	$ 18,563	$ 77,457	$ 32,553	$ 441,971	$ -
Insurance	$ 6,298,945	3	Fixed O&M	$ 190,798	$ 484,062	$ 1,051,039	$ 176,099	$ 1,684,569	$ 57,251	$ 822,705	$ 264,564	$ 1,103,915	$ 463,944	$ 6,298,945	$ -
	$ 63,311,478			$ 1,284,520	$ 6,235,074	$ 13,602,196	$ 1,903,458	$ 18,208,525	$ 473,326	$ 9,154,471	$ 2,189,485	$ 6,425,507	$ 3,834,916	$ 63,311,478	$ -
Maintenance Expense															
Salaries and Wages	$ 97,407	4	Labor	$ 1,124	$ 11,437	$ 25,019	$ 3,108	$ 29,734	$ 591	$ 15,277	$ 2,736	$ 3,597	$ 4,785	$ 97,407	$ -
Transportation	$ 13,205	3	Fixed O&M	$ 400	$ 1,015	$ 2,203	$ 369	$ 3,532	$ 120	$ 1,725	$ 555	$ 2,314	$ 973	$ 13,205	$ -
Contract Services - Eng	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contract Services - Other	$ 47,266	3	Fixed O&M	$ 1,432	$ 3,632	$ 7,887	$ 1,321	$ 12,641	$ 430	$ 6,173	$ 1,985	$ 8,284	$ 3,481	$ 47,266	$ -
Miscellaneous	$ 49,010	3	Fixed O&M	$ 1,485	$ 3,766	$ 8,178	$ 1,370	$ 13,107	$ 445	$ 6,401	$ 2,058	$ 8,589	$ 3,610	$ 49,010	$ -
Materials & Supplies	$ 57,601	3	Fixed O&M	$ 1,745	$ 4,427	$ 9,611	$ 1,610	$ 15,405	$ 524	$ 7,523	$ 2,419	$ 10,095	$ 4,243	$ 57,601	$ -
	$ 264,490			$ 6,185	$ 24,277	$ 52,898	$ 7,779	$ 74,418	$ 2,109	$ 37,099	$ 9,754	$ 32,879	$ 17,091	$ 264,490	$ -
Total A&G Expense	**$ 63,575,968**			**$ 1,290,705**	**$ 6,259,351**	**$ 13,655,094**	**$ 1,911,238**	**$ 18,282,942**	**$ 475,435**	**$ 9,191,571**	**$ 2,199,239**	**$ 6,458,386**	**$ 3,852,007**	**$ 63,575,968**	**$ -**
Total Operations & Maintenace Exp. (STL Water)	**$ 128,589,513**			**$ 7,684,869**	**$ 12,670,487**	**$ 37,460,629**	**$ 3,004,972**	**$ 28,745,626**	**$ 831,013**	**$ 14,301,303**	**$ 3,842,418**	**$ 13,314,684**	**$ 6,733,513**	**$ 128,589,513**	**$ -**

Missouri-American Water Company
Class Cost of Service Study - Account Detail
Case No: WR-2024-0320, SR-2024-0321

	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
Taxes Other Than Income Tax															
Property Taxes	$ 36,744,136	5	Net Plant (less gen. and int.)	$ 834,423	$ 1,344,030	$ 2,809,012	$ 2,146,721	$ 20,550,915	$ 210,103	$ 3,956,163	$ 3,286,696	$ 379,836	$ 1,226,238	$ 36,744,136	$ -
Payroll Taxes	$ 2,321,901	4	Labor	$ 26,782	$ 272,635	$ 596,375	$ 74,092	$ 708,767	$ 14,081	$ 364,154	$ 65,221	$ 85,738	$ 114,056	$ 2,321,901	$ -
Utility Reg Assessment	$ 1,727,636	6	Rate Base	$ 44,302	$ 71,616	$ 149,696	$ 96,217	$ 921,229	$ 11,161	$ 206,306	$ 147,071	$ 19,695	$ 60,343	$ 1,727,636	$ -
Other Taxes	$ (190,174)	6	Rate Base	$ (4,877)	$ (7,883)	$ (16,478)	$ (10,591)	$ (101,407)	$ (1,229)	$ (22,710)	$ (16,189)	$ (2,168)	$ (6,642)	$ (190,174)	$ -
	$ 40,603,500			$ 900,630	$ 1,680,398	$ 3,538,605	$ 2,306,439	$ 22,079,505	$ 234,116	$ 4,503,914	$ 3,482,798	$ 483,101	$ 1,393,995	$ 40,603,500	$ -
Total Taxes Other Than Income Taxes (STL Water)	**$ 40,603,500**			**$ 900,630**	**$ 1,680,398**	**$ 3,538,605**	**$ 2,306,439**	**$ 22,079,505**	**$ 234,116**	**$ 4,503,914**	**$ 3,482,798**	**$ 483,101**	**$ 1,393,995**	**$ 40,603,500**	**$ -**
Plant Depreciation															
Intangible Plant															
Organization	$ -	5	Net Plant (less gen. and int.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Franchises	$ -	5	Net Plant (less gen. and int.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other P/E-Intangible	$ -	5	Net Plant (less gen. and int.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Source of Supply															
Land & Land Rights	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Structures & Improvements	$ 545,433	A	Source of Supply	$ 545,433	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 545,433	$ -
Collection & Impound Reservoirs	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Lake, River, & Other Intakes	$ 724,692	A	Source of Supply	$ 724,692	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 724,692	$ -
Wells & Springs	$ 9,027	A	Source of Supply	$ 9,027	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,027	$ -
Infiltration Galleries & Tunnels	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supply Mains	$ 87,848	A	Source of Supply	$ 87,848	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 87,848	$ -
Other P/E-Supply	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Pumping															
Pumping Land & Land Rights	$ -	B	Pumping	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pumping Structures & Improvements	$ 1,114,174	B	Pumping	$ -	$ 1,114,174	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,114,174	$ -
Boiler Plant Equipment	$ -	B	Pumping	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Power Generation Equipment	$ 440,995	B	Pumping	$ -	$ 440,995	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 440,995	$ -
Steam Pumping Equipment	$ -	B	Pumping	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Electric Pumping Equipment	$ 1,350,203	B	Pumping	$ -	$ 1,350,203	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,350,203	$ -
Diesel Pumping Equipment	$ 37,170	B	Pumping	$ -	$ 37,170	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 37,170	$ -
Pump Equip Hydraulic	$ 4,705	B	Pumping	$ -	$ 4,705	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,705	$ -
Other Pumping Equipment	$ 297,974	B	Pumping	$ -	$ 297,974	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 297,974	$ -
Water Treatment															
Water Treatment Land & land Rights	$ -	C	Water Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Treatment Structures & Improvements	$ 2,334,564	C	Water Treatment	$ -	$ -	$ 2,334,564	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,334,564	$ -
Water Treatment Equipment	$ 3,545,224	C	Water Treatment	$ -	$ -	$ 3,545,224	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,545,224	$ -
Water Treatment - Other	$ -	C	Water Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
T&D															
Transmission & Distribution Land	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transmission & Distribution Structures & Impr	$ 106,653	K	Mains	$ -	$ -	$ -	$ 10,094	$ 96,559	$ -	$ -	$ -	$ -	$ -	$ 106,653	$ -
TD Mains 4in & Less	$ 583,156	E	Distribution	$ -	$ -	$ -	$ -	$ 583,156	$ -	$ -	$ -	$ -	$ -	$ 583,156	$ -
TD Mains 6in to 8in	$ 22,022,763	E	Distribution	$ -	$ -	$ -	$ -	$ 22,022,763	$ -	$ -	$ -	$ -	$ -	$ 22,022,763	$ -
TD Mains 10in to 16in	$ 3,980,796	D	Transmission	$ -	$ -	$ -	$ 544,368	$ 3,436,427	$ -	$ -	$ -	$ -	$ -	$ 3,980,796	$ -
TD Mains 18in & Grtr	$ 2,175,914	D	Transmission	$ -	$ -	$ -	$ 2,175,914	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,175,914	$ -
Other Transmission & Distribution Plant	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Storage															
Distribution Reservoirs & Standpipes	$ 402,936	F	Storage	$ -	$ -	$ -	$ -	$ -	$ 402,936	$ -	$ -	$ -	$ -	$ 402,936	$ -
Distribution Reservoirs & Standpipes - Tank Coating	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Meters															
Meters	$ 6,006,556	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,006,556	$ -	$ -	$ -	$ 6,006,556	$ -
Meter Installation	$ 983,668	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 983,668	$ -	$ -	$ -	$ 983,668	$ -
Meter Vaults	$ -	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Services															
Services	$ 7,636,691	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,636,691	$ -	$ -	$ 7,636,691	$ -
Hydrants															
Hydrants	$ 1,949,157	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,949,157	$ 1,949,157	$ -
Fire Mains	$ -	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

MIEC St. Louis County Class Cost of Service Study
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Tab: Account Detail

Missouri-American Water Company
Class Cost of Service Study - Account Detail
Case No: WR-2024-0320, SR-2024-0321

	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
General Plant															
General Land & Land Rights	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Stores Shops Equipment Structures	$ 831,702	3	Fixed O&M	$ 25,193	$ 63,915	$ 138,777	$ 23,252	$ 222,428	$ 7,559	$ 108,629	$ 34,933	$ 145,759	$ 61,258	$ 831,702	$ -
Office Structures	$ 119,249	3	Fixed O&M	$ 3,612	$ 9,164	$ 19,898	$ 3,334	$ 31,891	$ 1,084	$ 15,575	$ 5,009	$ 20,899	$ 8,783	$ 119,249	$ -
General Structures - HVAC	$ 71,552	3	Fixed O&M	$ 2,167	$ 5,499	$ 11,939	$ 2,000	$ 19,136	$ 650	$ 9,345	$ 3,005	$ 12,540	$ 5,270	$ 71,552	$ -
Miscellaneous Structures	$ 78,241	3	Fixed O&M	$ 2,370	$ 6,013	$ 13,055	$ 2,187	$ 20,925	$ 711	$ 10,219	$ 3,286	$ 13,712	$ 5,763	$ 78,241	$ -
Structures & Improvements - Leasehold	$ 2,609	3	Fixed O&M	$ 79	$ 200	$ 435	$ 73	$ 698	$ 24	$ 341	$ 110	$ 457	$ 192	$ 2,609	$ -
Office Furniture and Equipment	$ 69,972	3	Fixed O&M	$ 2,119	$ 5,377	$ 11,676	$ 1,956	$ 18,713	$ 636	$ 9,139	$ 2,939	$ 12,263	$ 5,154	$ 69,972	$ -
Computers & Peripheral Equipment	$ 1,319,498	3	Fixed O&M	$ 39,968	$ 101,401	$ 220,171	$ 36,889	$ 352,882	$ 11,993	$ 172,339	$ 55,421	$ 231,247	$ 97,187	$ 1,319,498	$ -
Computer Hardware & Software	$ 395,987	3	Fixed O&M	$ 11,995	$ 30,431	$ 66,074	$ 11,071	$ 105,902	$ 3,599	$ 51,720	$ 16,632	$ 69,398	$ 29,166	$ 395,987	$ -
Computer Software	$ 3,191,396	3	Fixed O&M	$ 96,669	$ 245,253	$ 532,515	$ 89,222	$ 853,497	$ 29,006	$ 416,828	$ 134,043	$ 559,305	$ 235,060	$ 3,191,396	$ -
Personal Computer Software	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Office Equipment	$ 74,639	3	Fixed O&M	$ 2,261	$ 5,736	$ 12,454	$ 2,087	$ 19,961	$ 678	$ 9,749	$ 3,135	$ 13,081	$ 5,497	$ 74,639	$ -
BTS Initial Investment	$ 1,528,051	3	Fixed O&M	$ 46,285	$ 117,428	$ 254,970	$ 42,720	$ 408,657	$ 13,888	$ 199,579	$ 64,180	$ 267,797	$ 112,547	$ 1,528,051	$ -
Transportation Equipment - Light Trucks	$ 853,825	3	Fixed O&M	$ 25,863	$ 65,615	$ 142,469	$ 23,870	$ 228,344	$ 7,760	$ 111,518	$ 35,862	$ 149,636	$ 62,888	$ 853,825	$ -
Transportation Equipment - Heavy Trucks	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transportation Equipment - Cars	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transportation Equipment - Other	$ 843,556	3	Fixed O&M	$ 25,552	$ 64,826	$ 140,755	$ 23,583	$ 225,598	$ 7,667	$ 110,177	$ 35,430	$ 147,837	$ 62,131	$ 843,556	$ -
Stores Equipment	$ 23,244	3	Fixed O&M	$ 704	$ 1,786	$ 3,879	$ 650	$ 6,216	$ 211	$ 3,036	$ 976	$ 4,074	$ 1,712	$ 23,244	$ -
Tools, Shop, & Garage Equipment	$ 443,793	3	Fixed O&M	$ 13,443	$ 34,105	$ 74,051	$ 12,407	$ 118,687	$ 4,034	$ 57,964	$ 18,640	$ 77,777	$ 32,687	$ 443,793	$ -
Laboratory Equipment	$ 42,654	C	Water Treatment	$ -	$ -	$ 42,654	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,654	$ -
Power Operated Equipment	$ 32,231	3	Fixed O&M	$ 976	$ 2,477	$ 5,378	$ 901	$ 8,620	$ 293	$ 4,210	$ 1,354	$ 5,649	$ 2,374	$ 32,231	$ -
Communication Equipment	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Communication Equipment (non telephone)	$ 455,562	3	Fixed O&M	$ 13,799	$ 35,009	$ 76,015	$ 12,736	$ 121,834	$ 4,141	$ 59,501	$ 19,134	$ 79,839	$ 33,554	$ 455,562	$ -
Telephone Equipment	$ 7,637	3	Fixed O&M	$ 231	$ 587	$ 1,274	$ 214	$ 2,042	$ 69	$ 997	$ 321	$ 1,338	$ 563	$ 7,637	$ -
Miscellaneous Equipment	$ 251,262	3	Fixed O&M	$ 7,611	$ 19,309	$ 41,926	$ 7,025	$ 67,197	$ 2,284	$ 32,817	$ 10,553	$ 44,035	$ 18,507	$ 251,262	$ -
Other Tangible Property	$ 15,686	3	Fixed O&M	$ 475	$ 1,205	$ 2,617	$ 439	$ 4,195	$ 143	$ 2,049	$ 659	$ 2,749	$ 1,155	$ 15,686	$ -
Transportation Equipment Capitalization	$ (780,946)	3	Fixed O&M	$ (23,655)	$ (60,014)	$ (130,308)	$ (21,833)	$ (208,854)	$ (7,098)	$ (101,999)	$ (32,801)	$ (136,864)	$ (57,520)	$ (780,946)	$ -
Plant Depreciation (STL Water)	$ 66,211,702			$ 1,664,717	$ 4,000,543	$ 7,562,461	$ 3,005,158	$ 28,767,475	$ 492,269	$ 8,273,956	$ 8,049,512	$ 1,722,526	$ 2,673,085	$ 66,211,702	$ -
CIAC-Non Taxable - Mains	$ (2,226,429)	K	Mains	$ -	$ -	$ -	$ (210,716)	$ (2,015,713)	$ -	$ -	$ -	$ -	$ -	$ (2,226,429)	$ -
CIAC-Non Taxable - Ext Dep	$ (722,168)	K	Mains	$ -	$ -	$ -	$ (68,348)	$ (653,820)	$ -	$ -	$ -	$ -	$ -	$ (722,168)	$ -
CIAC-Non Taxable - Services	$ (267)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (267)	$ -	$ -	$ (267)	$ -
CIAC-Non Taxable - Meters	$ (126,758)	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ (126,758)	$ -	$ -	$ -	$ (126,758)	$ -
CIAC-Non Taxable - Hydrants	$ (115,211)	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (115,211)	$ (115,211)	$ -
CIAC-Non Taxable - Other	$ (58,401)	K	Mains	$ -	$ -	$ -	$ (5,527)	$ (52,874)	$ -	$ -	$ -	$ -	$ -	$ (58,401)	$ -
CIAC-Non Taxable - WIP	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Taxable - Mains	$ (553,566)	K	Mains	$ -	$ -	$ -	$ (52,391)	$ (501,175)	$ -	$ -	$ -	$ -	$ -	$ (553,566)	$ -
CIAC-Taxable - Extension Deposits	$ (34,778)	K	Mains	$ -	$ -	$ -	$ (3,291)	$ (31,487)	$ -	$ -	$ -	$ -	$ -	$ (34,778)	$ -
CIAC-Taxable - Services	$ (1,091,630)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (1,091,630)	$ -	$ -	$ (1,091,630)	$ -
CIAC-Taxable - Meters	$ (8,035)	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ (8,035)	$ -	$ -	$ -	$ (8,035)	$ -
CIAC-Taxable - Hydrants	$ (4,194)	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (4,194)	$ (4,194)	$ -
CIAC-Taxable - Other	$ (1,164)	K	Mains	$ -	$ -	$ -	$ (110)	$ (1,054)	$ -	$ -	$ -	$ -	$ -	$ (1,164)	$ -
CIAC-Taxable - WIP	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Taxable - Services SIT	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Amortization of CIAC (STL Water)	$ (4,942,600)			$ -	$ -	$ -	$ (340,384)	$ (3,256,121)	$ -	$ (134,792)	$ (1,091,897)	$ -	$ (119,405)	$ (4,942,600)	$ -
Total Depreciation Expense (STL Water)	**$ 61,269,101**			**$ 1,664,717**	**$ 4,000,543**	**$ 7,562,461**	**$ 2,664,774**	**$ 25,511,353**	**$ 492,269**	**$ 8,139,163**	**$ 6,957,614**	**$ 1,722,526**	**$ 2,553,680**	**$ 61,269,101**	**$ -**
Eureka Depreciation	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Depreciation Expense	**$ 61,269,101**			**$ 1,664,717**	**$ 4,000,543**	**$ 7,562,461**	**$ 2,664,774**	**$ 25,511,353**	**$ 492,269**	**$ 8,139,163**	**$ 6,957,614**	**$ 1,722,526**	**$ 2,553,680**	**$ 61,269,101**	**$ -**
Amortization Expense															
Lead Service Replacement	$ 4,577,646	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,577,646	$ -	$ -	$ 4,577,646	$ -
Tank Painting Tracker	$ 293,475	6	Rate Base	$ 7,526	$ 12,165	$ 25,429	$ 16,344	$ 156,490	$ 1,896	$ 35,045	$ 24,983	$ 3,346	$ 10,251	$ 293,475	$ -
Property Tax Tracker	$ 2,410,364	6	Rate Base	$ 61,809	$ 99,917	$ 208,853	$ 134,240	$ 1,285,281	$ 15,572	$ 287,834	$ 205,191	$ 27,478	$ 84,190	$ 2,410,364	$ -
Enterprise Solutions	$ 6,432	6	Rate Base	$ 165	$ 267	$ 557	$ 358	$ 3,430	$ 42	$ 768	$ 548	$ 73	$ 225	$ 6,432	$ -
Low Income Costs	$ 2,417	6	Rate Base	$ 62	$ 100	$ 209	$ 135	$ 1,289	$ 16	$ 289	$ 206	$ 28	$ 84	$ 2,417	$ -
Total Amortization Expense (STL Water)	$ 7,290,335			$ 69,561	$ 112,450	$ 235,048	$ 151,077	$ 1,446,490	$ 17,525	$ 323,936	$ 4,808,573	$ 30,924	$ 94,750	$ 7,290,335	$ -
Total Amortization Expense	**$ 7,290,335**			**$ 69,561**	**$ 112,450**	**$ 235,048**	**$ 151,077**	**$ 1,446,490**	**$ 17,525**	**$ 323,936**	**$ 4,808,573**	**$ 30,924**	**$ 94,750**	**$ 7,290,335**	**$ -**

MIEC St. Louis County Class Cost of Service Study
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Tab: Account Detail

Missouri-American Water Company
Class Cost of Service Study - Account Detail
Case No: WR-2024-0320, SR-2024-0321

	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
Income Taxes															
Federal Income Tax	$ 5,342,587	6	Rate Base	$ 136,999	$ 221,467	$ 462,923	$ 297,544	$ 2,848,833	$ 34,515	$ 637,987	$ 454,806	$ 60,905	$ 186,608	$ 5,342,587	$ -
State Income Tax	$ 927,272	6	Rate Base	$ 23,778	$ 38,438	$ 80,346	$ 51,642	$ 494,450	$ 5,990	$ 110,730	$ 78,937	$ 10,571	$ 32,388	$ 927,272	
Deferred Income Taxes	$ 23,389,633	6	Rate Base	$ 599,777	$ 969,574	$ 2,026,660	$ 1,302,636	$ 12,472,079	$ 151,104	$ 2,793,080	$ 1,991,123	$ 266,638	$ 816,961	$ 23,389,633	
ITC Restored	$ (71,288)	6	Rate Base	$ (1,828)	$ (2,955)	$ (6,177)	$ (3,970)	$ (38,013)	$ (461)	$ (8,513)	$ (6,069)	$ (813)	$ (2,490)	$ (71,288)	$ -
Total Income Taxes (STL Water)	$ 29,588,204			$ 758,726	$ 1,226,525	$ 2,563,752	$ 1,647,852	$ 15,777,350	$ 191,149	$ 3,533,284	$ 2,518,798	$ 337,301	$ 1,033,467	$ 29,588,204	$ -
Total Income Tax Expense	**$ 29,588,204**			**$ 758,726**	**$ 1,226,525**	**$ 2,563,752**	**$ 1,647,852**	**$ 15,777,350**	**$ 191,149**	**$ 3,533,284**	**$ 2,518,798**	**$ 337,301**	**$ 1,033,467**	**$ 29,588,204**	
Required Net Operating Income (STL Water)	$ 182,789,448	6	Rate Base	$ 4,687,243	$ 7,577,200	$ 15,838,300	$ 10,180,068	$ 97,469,014	$ 1,180,877	$ 21,827,855	$ 15,560,583	$ 2,083,772	$ 6,384,535	$ 182,789,448	$ -
Required Net Operating Income	$ 182,789,448			$ 4,687,243	$ 7,577,200	$ 15,838,300	$ 10,180,068	$ 97,469,014	$ 1,180,877	$ 21,827,855	$ 15,560,583	$ 2,083,772	$ 6,384,535	$ 182,789,448	$ -
Total Revenue Requirement (STL Water)	**$ 450,130,101**			**$ 15,765,746**	**$ 27,267,601**	**$ 67,198,796**	**$ 19,955,181**	**$ 191,029,338**	**$ 2,946,950**	**$ 52,629,455**	**$ 37,170,785**	**$ 17,972,309**	**$ 18,193,940**	**$ 450,130,101**	**$ -**
Other Operating Revenue (STL Water)	$ (2,879,768)	6	Rate Base	$ (73,845)	$ (119,375)	$ (249,526)	$ (160,383)	$ (1,535,582)	$ (18,604)	$ (343,888)	$ (245,150)	$ (32,829)	$ (100,586)	$ (2,879,768)	$ -
Total Retail Revenue Requirement (STL Water)	**$ 447,250,332**			**$ 15,691,901**	**$ 27,148,225**	**$ 66,949,270**	**$ 19,794,799**	**$ 189,493,756**	**$ 2,928,346**	**$ 52,285,566**	**$ 36,925,635**	**$ 17,939,480**	**$ 18,093,354**	**$ 447,250,332**	**$ -**
Total Revenue Requirement (STL Water)	**$ 450,130,101**														
check	$ 0														

MIEC St. Louis County Class Cost of Service Study
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Missouri-American Water Company
Class Cost of Service Study - Account Detail
Case No: WR-2024-0320, SR-2024-0321

	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
Plant Account															
Intangible Plant															
Organization	$ 285,088	5	Net Plant (less gen. and int.)	$ 6,474	$ 10,428	$ 21,794	$ 16,656	$ 159,449	$ 1,630	$ 30,695	$ 25,501	$ 2,947	$ 9,514	$ 285,088	$ -
Franchises	$ -	5	Net Plant (less gen. and int.)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other P/E-Intangible	$ 1,410,851	5	Net Plant (less gen. and int.)	$ 32,039	$ 51,606	$ 107,857	$ 82,427	$ 789,086	$ 8,067	$ 151,903	$ 126,198	$ 14,584	$ 47,083	$ 1,410,851	$ -
Source of Supply															
Land & Land Rights	$ 13,658,085	A	Source of Supply	$ 13,658,085	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,658,085	$ -
Structures & Improvements	$ 25,848,952	A	Source of Supply	$ 25,848,952	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,848,952	$ -
Collection & Impound Reservoirs	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Lake, River, & Other Intakes	$ 22,039,171	A	Source of Supply	$ 22,039,171	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,039,171	$ -
Wells & Springs	$ 325,571	A	Source of Supply	$ 325,571	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 325,571	$ -
Infiltration Galleries & Tunnels	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Supply Mains	$ 1,304,079	A	Source of Supply	$ 1,304,079	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,304,079	$ -
Other P/E-Supply	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Pumping															
Pumping Land & Land Rights	$ 332,675	B	Pumping	$ -	$ 332,675	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 332,675	$ -
Pumping Structures & Improvements	$ 18,698,879	B	Pumping	$ -	$ 18,698,879	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,698,879	$ -
Boiler Plant Equipment	$ -	B	Pumping	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Power Generation Equipment	$ 11,367,527	B	Pumping	$ -	$ 11,367,527	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 11,367,527	$ -
Steam Pumping Equipment	$ 1,120,451	B	Pumping	$ -	$ 1,120,451	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,120,451	$ -
Electric Pumping Equipment	$ 47,863,547	B	Pumping	$ -	$ 47,863,547	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 47,863,547	$ -
Diesel Pumping Equipment	$ 26,758	B	Pumping	$ -	$ 26,758	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,758	$ -
Pump Equip Hydraulic	$ 196,128	B	Pumping	$ -	$ 196,128	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 196,128	$ -
Other Pumping Equipment	$ 17,155,891	B	Pumping	$ -	$ 17,155,891	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 17,155,891	$ -
Water Treatment															
Water Treatment Land & land Rights	$ 1,902,246	C	Water Treatment	$ -	$ -	$ 1,902,246	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,902,246	$ -
Water Treatment Structures & Improvements	$ 58,738,228	C	Water Treatment	$ -	$ -	$ 58,738,228	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 58,738,228	$ -
Water Treatment Equipment	$ 139,800,618	C	Water Treatment	$ -	$ -	$ 139,800,618	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 139,800,618	$ -
Water Treatment - Other	$ -	C	Water Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
														$ -	$ -
T&D														$ -	$ -
Transmission & Distribution Land	$ 3,991,405	K	Mains	$ -	$ -	$ -	$ 377,759	$ 3,613,646	$ -	$ -	$ -	$ -	$ -	$ 3,991,405	$ -
Transmission & Distribution Structures & Impr	$ 2,880,243	K	Mains	$ -	$ -	$ -	$ 272,595	$ 2,607,648	$ -	$ -	$ -	$ -	$ -	$ 2,880,243	$ -
TD Mains 4in & Less	$ 36,611,275	E	Distribution	$ -	$ -	$ -	$ -	$ 36,611,275	$ -	$ -	$ -	$ -	$ -	$ 36,611,275	$ -
TD Mains 6in to 8in	$ 1,382,615,884	E	Distribution	$ -	$ -	$ -	$ -	$ 1,382,615,884	$ -	$ -	$ -	$ -	$ -	$ 1,382,615,884	$ -
TD Mains 10in to 16in	$ 249,919,195	D	Transmission	$ -	$ -	$ -	$ 34,176,104	$ 215,743,091	$ -	$ -	$ -	$ -	$ -	$ 249,919,195	$ -
TD Mains 18in & Grtr	$ 136,606,510	D	Transmission	$ -	$ -	$ -	$ 136,606,510	$ -	$ -	$ -	$ -	$ -	$ -	$ 136,606,510	$ -
Other Transmission & Distribution Plant	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
														$ -	$ -
Storage														$ -	$ -
Distribution Reservoirs & Standpipes	$ 15,485,961	F	Storage	$ -	$ -	$ -	$ -	$ -	$ 15,485,961	$ -	$ -	$ -	$ -	$ 15,485,961	$ -
Distribution Reservoirs & Standpipes - Tank Coating	$ 160,972	F	Storage	$ -	$ -	$ -	$ -	$ -	$ 160,972	$ -	$ -	$ -	$ -	$ 160,972	$ -
Meters														$ -	$ -
Meters	$ 273,880,916	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 273,880,916	$ -	$ -	$ -	$ 273,880,916	$ -
Meter Installation	$ 27,964,291	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,964,291	$ -	$ -	$ -	$ 27,964,291	$ -
Meter Vaults	$ -	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
														$ -	$ -
Services														$ -	$ -
Services	$ 262,611,902	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 262,611,902	$ -	$ -	$ 262,611,902	$ -
Hydrants														$ -	$ -
Hydrants	$ 87,650,905	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 87,650,905	$ 87,650,905	$ -
Fire Mains	$ -	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
														$ -	$ -

MIEC St. Louis County Class Cost of Service Study
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Missouri-American Water Company
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	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
General Plant															
General Land & Land Rights	$ 32,372	3	Fixed O&M	$ 981	$ 2,488	$ 5,402	$ 905	$ 8,657	$ 294	$ 4,228	$ 1,360	$ 5,673	$ 2,384	$ 32,372	$ -
Stores Shops Equipment Structures	$ 24,528,093	3	Fixed O&M	$ 742,968	$ 1,884,939	$ 4,092,744	$ 685,730	$ 6,559,713	$ 222,934	$ 3,203,612	$ 1,030,212	$ 4,298,644	$ 1,806,597	$ 24,528,093	$ -
Office Structures	$ 4,425,250	3	Fixed O&M	$ 134,043	$ 340,072	$ 738,395	$ 123,716	$ 1,183,474	$ 40,221	$ 577,981	$ 185,866	$ 775,542	$ 325,938	$ 4,425,250	$ -
General Structures - HVAC	$ 1,611,719	3	Fixed O&M	$ 48,820	$ 123,858	$ 268,931	$ 45,059	$ 431,033	$ 14,649	$ 210,506	$ 67,694	$ 282,460	$ 118,710	$ 1,611,719	$ -
Miscellaneous Structures	$ 1,011,963	3	Fixed O&M	$ 30,653	$ 77,767	$ 168,856	$ 28,291	$ 270,636	$ 9,198	$ 132,172	$ 42,504	$ 177,350	$ 74,535	$ 1,011,963	$ -
Structures & Improvements - Leasehold	$ (93,510)	3	Fixed O&M	$ (2,832)	$ (7,186)	$ (15,603)	$ (2,614)	$ (25,008)	$ (850)	$ (12,213)	$ (3,928)	$ (16,388)	$ (6,887)	$ (93,510)	$ -
Office Furniture and Equipment	$ 1,444,634	3	Fixed O&M	$ 43,759	$ 111,017	$ 241,051	$ 40,388	$ 386,348	$ 13,130	$ 188,684	$ 60,677	$ 253,178	$ 106,403	$ 1,444,634	$ -
Computers & Peripheral Equipment	$ 3,947,193	3	Fixed O&M	$ 119,562	$ 303,334	$ 658,626	$ 110,351	$ 1,055,624	$ 35,876	$ 515,542	$ 165,787	$ 691,761	$ 290,727	$ 3,947,193	$ -
Computer Hardware & Software	$ (758,976)	3	Fixed O&M	$ (22,990)	$ (58,326)	$ (126,642)	$ (21,219)	$ (202,978)	$ (6,898)	$ (99,130)	$ (31,878)	$ (133,013)	$ (55,902)	$ (758,976)	$ -
Computer Software	$ 46,361,895	3	Fixed O&M	$ 1,404,325	$ 3,562,826	$ 7,735,921	$ 1,296,137	$ 12,398,873	$ 421,380	$ 6,055,322	$ 1,947,260	$ 8,125,103	$ 3,414,748	$ 46,361,895	$ -
Personal Computer Software	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Office Equipment	$ 747,758	3	Fixed O&M	$ 22,650	$ 57,464	$ 124,771	$ 20,905	$ 199,978	$ 6,796	$ 97,665	$ 31,407	$ 131,048	$ 55,076	$ 747,758	$ -
BTS Initial Investment	$ 11,159,601	3	Fixed O&M	$ 338,030	$ 857,595	$ 1,862,085	$ 311,988	$ 2,984,487	$ 101,429	$ 1,457,554	$ 468,718	$ 1,955,764	$ 821,951	$ 11,159,601	$ -
Transportation Equipment - Light Trucks	$ 10,234,825	3	Fixed O&M	$ 310,018	$ 786,527	$ 1,707,777	$ 286,134	$ 2,737,168	$ 93,024	$ 1,336,769	$ 429,876	$ 1,793,693	$ 753,838	$ 10,234,825	$ -
Transportation Equipment - Heavy Trucks	$ 22,541,844	3	Fixed O&M	$ 682,804	$ 1,732,299	$ 3,761,320	$ 630,201	$ 6,028,517	$ 204,881	$ 2,944,188	$ 946,787	$ 3,950,546	$ 1,660,301	$ 22,541,844	$ -
Transportation Equipment - Cars	$ 21,653,192	3	Fixed O&M	$ 655,886	$ 1,664,008	$ 3,613,040	$ 605,357	$ 5,790,859	$ 196,805	$ 2,828,121	$ 909,462	$ 3,794,806	$ 1,594,848	$ 21,653,192	$ -
Transportation Equipment - Other	$ 9,376,852	3	Fixed O&M	$ 284,030	$ 720,594	$ 1,564,616	$ 262,148	$ 2,507,715	$ 85,226	$ 1,224,710	$ 393,840	$ 1,643,330	$ 690,644	$ 9,376,852	$ -
Stores Equipment	$ 696,243	3	Fixed O&M	$ 21,090	$ 53,505	$ 116,175	$ 19,465	$ 186,201	$ 6,328	$ 90,936	$ 29,243	$ 122,019	$ 51,281	$ 696,243	$ -
Tools, Shop, & Garage Equipment	$ 8,486,307	3	Fixed O&M	$ 257,055	$ 652,157	$ 1,416,021	$ 237,251	$ 2,269,550	$ 77,132	$ 1,108,396	$ 356,436	$ 1,487,258	$ 625,052	$ 8,486,307	$ -
Laboratory Equipment	$ 677,756	C	Water Treatment	$ -	$ -	$ 677,756	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 677,756	$ -
Power Operated Equipment	$ 73,253	3	Fixed O&M	$ 2,219	$ 5,629	$ 12,223	$ 2,048	$ 19,591	$ 666	$ 9,568	$ 3,077	$ 12,838	$ 5,395	$ 73,253	$ -
Communication Equipment	$ 65,142	3	Fixed O&M	$ 1,973	$ 5,006	$ 10,870	$ 1,821	$ 17,421	$ 592	$ 8,508	$ 2,736	$ 11,416	$ 4,798	$ 65,142	$ -
Communication Equipment (non telephone)	$ 5,301,277	3	Fixed O&M	$ 160,578	$ 407,393	$ 884,568	$ 148,207	$ 1,417,756	$ 48,183	$ 692,399	$ 222,661	$ 929,070	$ 390,461	$ 5,301,277	$ -
Telephone Equipment	$ 59,554	3	Fixed O&M	$ 1,804	$ 4,577	$ 9,937	$ 1,665	$ 15,927	$ 541	$ 7,778	$ 2,501	$ 10,437	$ 4,386	$ 59,554	$ -
Miscellaneous Equipment	$ 2,199,156	3	Fixed O&M	$ 66,614	$ 169,001	$ 366,950	$ 61,482	$ 588,135	$ 19,988	$ 287,232	$ 92,367	$ 385,411	$ 161,977	$ 2,199,156	$ -
Other Tangible Property	$ 556,560	3	Fixed O&M	$ 16,858	$ 42,771	$ 92,867	$ 15,560	$ 148,844	$ 5,059	$ 72,692	$ 23,376	$ 97,539	$ 40,993	$ 556,560	$ -
Transportation Equipment Capitalization	$ 2,445,193	3	Fixed O&M	$ 74,066	$ 187,909	$ 408,004	$ 68,360	$ 653,934	$ 22,224	$ 319,366	$ 102,701	$ 428,530	$ 180,099	$ 2,445,193	$ -
Net Utility Plant	$ 3,021,239,349			$ 68,609,334	$ 110,511,115	$ 230,967,403	$ 176,511,387	$ 1,689,772,535	$ 17,275,437	$ 325,290,392	$ 270,244,343	$ 31,231,545	$ 100,825,858	$ 3,021,239,349	$ -
internal check:	0														
Additions to Rate Base															
Cash Working Capital(STL Water)	$ (4,917,917)	3	Fixed O&M	$ (148,966)	$ (377,933)	$ (820,601)	$ (137,490)	$ (1,315,232)	$ (44,699)	$ (642,329)	$ (206,559)	$ (861,884)	$ (362,225)	$ (4,917,917)	$ -
Materials and Supplies(STL Water)	$ 8,784,150	5	Net Plant (less gen. and int.)	$ 199,479	$ 321,307	$ 671,530	$ 513,201	$ 4,912,956	$ 50,228	$ 945,771	$ 785,726	$ 90,805	$ 293,148	$ 8,784,150	$ -
Pension Asset(STL Water)	$ 21,065,567	5	Net Plant (less gen. and int.)	$ 478,378	$ 770,538	$ 1,610,418	$ 1,230,724	$ 11,781,925	$ 120,453	$ 2,268,085	$ 1,884,277	$ 217,762	$ 703,007	$ 21,065,567	$ -
Regulatory Deferrals(STL Water)	$ 9,641,328	5	Net Plant (less gen. and int.)	$ 218,945	$ 352,661	$ 737,059	$ 563,280	$ 5,392,374	$ 55,129	$ 1,038,061	$ 862,399	$ 99,666	$ 321,754	$ 9,641,328	$ -
Tank Painting Tracker(STL Water)	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Additions	$ 34,573,128			$ 747,836	$ 1,066,573	$ 2,198,406	$ 2,169,715	$ 20,772,023	$ 181,111	$ 3,609,588	$ 3,325,843	$ (453,652)	$ 955,684	$ 34,573,128	$ -
Reductions to Rate Base															
Customer Advances for Construction															
Advances for Construction - NT Mains	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Advances for Construction - NT Extension Deposits	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Advances for Construction - NT Hydrants	$ -	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Advances for Construction - NT WIP	$ -	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Advances for Construction - TAX Mains	$ -	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Advances for Construction - Reclassed to Current	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Allocated MAWC Corporate - Customer Advances	$ (56,680)	K	Mains	$ -	$ -	$ (5,364)	$ (51,316)	$ -	$ -	$ -	$ -	$ -	$ -	$ (56,680)	$ -
CIAC															
CIAC-Non Taxable - Mains	$ (159,443,024)	K	Mains	$ -	$ -	$ -	$ (15,090,165)	$ (144,352,859)	$ -	$ -	$ -	$ -	$ -	$ (159,443,024)	$ -
CIAC-Non Taxable - Ext Dep	$ (51,954,549)	K	Mains	$ -	$ -	$ -	$ (4,917,134)	$ (47,037,415)	$ -	$ -	$ -	$ -	$ -	$ (51,954,549)	$ -
CIAC-Non Taxable - Services	$ (9,152)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (9,152)	$ -	$ -	$ (9,152)	$ -
CIAC-Non Taxable - Meters	$ (5,286,181)	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ (5,286,181)	$ -	$ -	$ -	$ (5,286,181)	$ -
CIAC-Non Taxable - Hydrants	$ (6,227,639)	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (6,227,639)	$ (6,227,639)	$ -
CIAC-Non Taxable - Other	$ (1,968,056)	K	Mains	$ -	$ -	$ -	$ (186,263)	$ (1,781,793)	$ -	$ -	$ -	$ -	$ -	$ (1,968,056)	$ -
CIAC-Non Taxable - WIP	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Taxable - Mains	$ (39,824,874)	K	Mains	$ -	$ -	$ -	$ (3,769,145)	$ (36,055,729)	$ -	$ -	$ -	$ -	$ -	$ (39,824,874)	$ -
CIAC-Taxable - Extension Deposits	$ (2,502,015)	K	Mains	$ -	$ -	$ -	$ (236,798)	$ (2,265,217)	$ -	$ -	$ -	$ -	$ -	$ (2,502,015)	$ -
CIAC-Taxable - Services	$ (37,384,590)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (37,384,590)	$ -	$ -	$ (37,384,590)	$ -
CIAC-Taxable - Meters	$ (334,776)	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ (334,776)	$ -	$ -	$ -	$ (334,776)	$ -
CIAC-Taxable - Hydrants	$ (226,701)	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (226,701)	$ (226,701)	$ -
CIAC-Taxable - Other	$ (39,314)	K	Mains	$ -	$ -	$ -	$ (3,721)	$ (35,593)	$ -	$ -	$ -	$ -	$ -	$ (39,314)	$ -
CIAC-Taxable - WIP	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Taxable - Services SIT	$ -	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Accum Amort CIAC	$ 73,517,060	5	Net Plant (less gen. and int.)	$ 1,669,499	$ 2,689,112	$ 5,620,225	$ 4,295,124	$ 41,117,930	$ 420,370	$ 7,915,425	$ 6,575,967	$ 759,970	$ 2,453,437	$ 73,517,060	$ -
Allocated MAWC Corporate - CIAC	$ (712,082)	K	Mains	$ -	$ -	$ -	$ (67,394)	$ (644,688)	$ -	$ -	$ -	$ -	$ -	$ (712,082)	$ -
Deferred Income Tax (STL Water)	$ (491,464,492)	5	Net Plant (less gen. and int.)	$ (11,160,669)	$ (17,976,824)	$ (37,571,428)	$ (28,713,077)	$ (274,875,011)	$ (2,810,192)	$ (52,914,933)	$ (43,960,601)	$ (5,080,430)	$ (16,401,325)	$ (491,464,492)	$ -
Pension/OPEB Tracker (STL Water)	$ 4,929,249	4	Labor	$ 56,857	$ 578,787	$ 1,266,066	$ 157,293	$ 1,504,668	$ 29,893	$ 773,077	$ 138,459	$ 182,015	$ 242,133	$ 4,929,249	$ -
Total Reductions	$ (718,987,816)			$ (9,434,313)	$ (14,708,925)	$ (30,685,137)	$ (48,536,644)	$ (464,477,023)	$ (2,359,929)	$ (49,847,388)	$ (74,639,917)	$ (4,138,445)	$ (20,160,095)	$ (718,987,816)	$ -
TOTAL RATE BASE (STL Water)	**$ 2,336,824,661**			**$ 59,922,857**	**$ 96,868,764**	**$ 202,480,672**	**$ 130,144,458**	**$ 1,246,067,535**	**$ 15,096,620**	**$ 279,052,591**	**$ 198,930,269**	**$ 26,639,448**	**$ 81,621,446**	**$ 2,336,824,661**	**$ -**
TOTAL MO RATE BASE	**$ 2,336,824,661**														

MIEC St. Louis County Class Cost of Service Study
Case No: WR-2024-0320, SR 2024-0321
Tab: Account Detail

Missouri-American Water Company
Class Cost of Service Study - Account Detail
Case No: WR-2024-0320, SR-2024-0321

	Post Test Year	Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Variance
Miscellaneous T&D Operating Expense	$ 1,764,746	1	$ -	$ -	$ -	$ -	$ 111,480	$ 1,066,423	$ -	$ 586,842	$ -	$ -	$ -	$ 1,764,746	
				-	-	-	0.06317	0.60429	-	0.33254	-	-	-	1.00000	
Miscellaneous T&D Maintenance Expense	$ 880,721	2		$ -	$ -	$ -	$ 27,796	$ 265,901	$ 37,024	$ 78,873	$ 171,094	$ -	$ 300,033	$ 880,721	
				-	-	-	0.03156	0.30191	0.04204	0.08956	0.19427	-	0.34067	1.00000	
Fixed O&M	$ 38,543,149	3		$ 1,185,028	$ 3,006,461	$ 6,527,891	$ 1,093,734	$ 10,462,684	$ 355,578	$ 5,109,732	$ 1,643,179	$ 6,856,299	$ 2,881,506	$ 39,122,092	
				0.03029	0.07685	0.16686	0.02796	0.26744	0.00909	0.13061	0.04200	0.17525	0.07365	1.00000	
Labor	$ 30,338,984	4		$ 210,561	$ 2,143,465	$ 4,688,715	$ 582,514	$ 5,572,347	$ 110,706	$ 2,862,990	$ 512,766	$ 674,071	$ 896,707	$ 18,254,842	
				0.01153	0.11742	0.25685	0.03191	0.30525	0.00606	0.15683	0.02809	0.03693	0.04912	1.00000	
Net Plant	$ 3,021,239,349	5		$ 68,570,821	$ 110,449,081	$ 230,837,752	$ 176,412,305	$ 1,688,824,000	$ 17,265,740	$ 325,107,793	$ 270,092,644	$ 31,214,014	$ 100,769,260	$ 3,019,543,410	
				0.02271	0.03658	0.07645	0.05842	0.55930	0.00572	0.10767	0.08945	0.01034	0.03337	1.00000	
Rate Base	$ 2,336,824,661	6		$ 59,922,857	$ 96,868,764	$ 202,480,672	$ 130,144,458	$ 1,246,067,535	$ 15,096,620	$ 279,052,591	$ 198,930,269	$ 26,639,448	$ 81,621,446	$ 2,336,824,661	
				0.02564	0.04145	0.08665	0.05569	0.53323	0.00646	0.11942	0.08513	0.01140	0.03493	1.00000	
Variable Cost	$ 25,891,454			$ 5,209,136	$ 3,404,675	$ 17,277,643	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,891,454	
Fuel and Power				$ 4,760,420	$ 3,406,240	$ 704,839	$ 35,751	$ 341,996	$ 185	$ 187,860	$ 856	$ 3,570	$ 1,500	$ 9,443,217	

MIEC St. Louis County Class Cost of Service Study
Case No: WR-2024-0320, SR 2024-0321
Tab: Usage Statistics

Missouri-American Water Company
Cost of Service Study - Usage Statistics
Case No: WR-2024-0320, SR-2024-0321

	Residential	Non Residential	Rate J	Rate B	Contracts	Rate F Private Fire	Public Fire	Total	
Total Usage	228,746,333	78,676,166	49,615,703	18,144,716	27,526,028	522,548		403,231,495	hundred gallons
Average Day Usage	626,702	215,551	135,933	49,712	75,414	1,432	-	1,104,744	hundred gallons
Max Day Capacity Factor	2.00	2.12	1.48	1.61	1.44			---	
Max Day Usage	1,254,297	457,150	201,015	80,104	108,732	26,743	93,257	2,221,299	hundred gallons
Extra Capacity	627,595	241,599	65,082	30,392	33,318	25,311	93,257	1,116,555	hundred gallons
Fire Allocator						0.2229	0.7771	1.0000	20,000 gpm for 10 hours
Distribution Multiplier	1.00	1.00	0.01	0.21		1.00	1.00	N/A	
Average Hourly Usage	26,113	8,981	66	431	-	60	-	35,650	hundred gallons
Max Hour Capacity Factor	4.47	2.59	1.64	1.61	1.44			---	
Max Hour Usage	116,802	23,227	109	694	-	4,011	13,989	158,832	hundred gallons
Extra Capacity	90,689	14,246	43	263	-	3,952	13,989	123,181	hundred gallons
Customers	323,252	18,448	160	4	2	7,667		349,533	
Hydrants						39	33,301	33,340	
Revenue	$ 219,196,203	$ 68,531,934	$ 11,296,485	$ 4,931,008	$ 4,684,084	$ 4,998,343		$ 313,638,057	

	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Meter Weighting	Service Weighting
5/8-METER	286,221	7,696	1	-	-	-		1.0	1.0
3/4-METER	24,510	3,064	-	-	-	-		1.5	1.0
1-METER	10,179	2,207	1	-	-	-		2.5	2.9
1.5-METER	821	1,122	1	-	-	-		5.0	4.0
2-METER	979	3,326	29	-	-	143		8.0	5.6
3-METER	14	330	18	-	-	3		16.0	5.6
4-METER	15	234	39	-	-	544		25.0	6.4
6-METER	16	221	39	-	-	2,308		50.0	9.9
8-METER	30	258	34	-	-	1,373		80.0	9.9
10-METER	2	55	21	-	-	46		115.0	9.9
12-METER	-	-	-	-	-	74		215.0	12.2
14-METER	-	-	-	-	-	-		320.0	12.2

MIEC St. Louis County Class Cost of Service Study
Case No: WR-2024-0320, SR 2024-0321
Tab: Usage Statistics

Missouri-American Water Company
Cost of Service Study - Usage Statistics
Case No: WR-2024-0320, SR-2024-0321

System Load Factor:	0.5560	1,986,949	max day - thousand gallons per day	Average system hourly flow on max day
System Load Factor (fire):	0.5247	2,105,518	max day with fire - thousand gallons per day	Average system hourly flow on max day
System Load Factor (Hourly)	0.3738	95,373	max hour - thousand gallons per day	
System Load Factor (Hourly fire)	0.3146	113,313	max hour with fire - thousand gallons per day	

Mains Statistics

Type		Pct	
Transmission	5,244,060	0.09464	9.5%
Distribution	19,254,897	0.90536	90.5%
Total	24,498,957	1.0000	

Storage Statistics

Total Capacity	1,034,700	hundred gallons (2023 annual report)
Fire Allocation	0.1146	percentage of storage needed for maximum fire protection day
Non-Fire Allocation	0.8854	

MIEC St. Louis County Class Cost of Service Study
Case No: WR-2024-0320, SR 2024-0321
Tab: Class Allocator

Missouri-American Water Company
Cost of Service Study - Class Allocators
Case No: WR-2024-0320, SR-2024-0321

1. VARIABLE COST

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Total Usage	228,746,333	78,676,166	49,615,703	18,144,716	27,526,028	522,548	-	403,231,495	hundred gallons
Allocator	**0.5673**	**0.1951**	**0.1230**	**0.0450**	**0.0683**	**0.0013**	**-**	**1.0000**	

2. BASE/EXTRA DAILY

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Average Daily Use	626,702	215,551	135,933	49,712	75,414	1,432	-	1,104,744	hundred gallons
Extra Capacity	627,595	241,599	65,082	30,392	33,318			997,986	hundred gallons
System Capacity Factor	0.5560								
Average Day Allocator	0.3154	0.1085	0.0684	0.0250	0.0380	0.0007	-	0.5560	
Extra Capacity Allocator	0.2792	0.1075	0.0290	0.0135	0.0148	-	-	0.4440	
Allocator	**0.5946**	**0.2160**	**0.0974**	**0.0385**	**0.0528**	**0.0007**	**-**	**1.0000**	

3. BASE/EXTRA DAILY (w FIRE PROTECTION)

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Average Daily Use	626,702	215,551	135,933	49,712	75,414	1,432	-	1,104,744	hundred gallons
Extra Capacity	627,595	241,599	65,082	30,392	33,318	25,311	93,257	1,116,555	hundred gallons
System Capacity Factor	0.5247	assuming fire protection							
Average Day Allocator	0.2976	0.1024	0.0646	0.0236	0.0358	0.0007	-	0.5247	
Extra Capacity Allocator	0.2672	0.1028	0.0277	0.0129	0.0142	0.0108	0.0397	0.4753	
Combined Allocator	**0.5648**	**0.2052**	**0.0923**	**0.0365**	**0.0500**	**0.0115**	**0.0397**	**1.0000**	

4. BASE/EXTRA HOURLY (w FIRE PROTECTION)

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Average Hourly Use	26,113	8,981	66	431	-	60	-	35,650	hundred gallons
Extra Capacity	90,689	14,246	43	263	-	3,952	13,989	123,181	hundred gallons
System Capacity Factor	0.3146	assuming fire protection							
Average Day Allocator	0.2304	0.0793	0.0006	0.0038	-	0.0005	-	0.3146	
Extra Capacity Allocator	0.5046	0.0793	0.0002	0.0015	-	0.0220	0.0778	0.6854	
Combined Allocator	**0.7350**	**0.1585**	**0.0008**	**0.0053**	**-**	**0.0225**	**0.0778**	**1.0000**	

MIEC St. Louis County Class Cost of Service Study
Case No: WR-2024-0320, SR 2024-0321
Tab: Class Allocator

Missouri-American Water Company
Cost of Service Study - Class Allocators
Case No: WR-2024-0320, SR-2024-0321

5. STORAGE

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Average Hourly Use	26,113	8,981	5,664	2,071	3,142	60		46,031	
Extra Capacity	90,689	14,246	3,649	1,266	1,388	----		111,239	
Fire Allocator						0.22286	0.77714	1.00000	
System Capacity Factor	0.3146	assuming fire protection							
Average Day Allocator	0.1785	0.0614	0.0387	0.0142	0.0215	0.0004		0.3146	
Extra Capacity Allocator	0.5588	0.0878	0.0225	0.0078	0.0086			0.6854	
Allocator	0.7372	0.1492	0.0612	0.0220	0.0300	0.0004		1.0000	
Non-Fire Allocation of Storage	0.88541								
Fire Allocaton of Storage	0.11459								
Non-Fire Allocator	0.6528	0.1321	0.0542	0.0194	0.0266	0.0004	-	0.8854	
Fire Allocator	-	-	-	-	-	0.0255	0.0891	0.1146	
Combined Allocator	**0.6528**	**0.1321**	**0.0542**	**0.0194**	**0.0266**	**0.0259**	**0.0891**	**1.0000**	

6. MAINS

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Factor 4	0.5648	0.2052	0.0923	0.0365	0.0500	0.0115	0.0397	1.0000	hundred gallons
Factor 5	0.7350	0.1585	0.0008	0.0053	-	0.0225	0.0778	1.0000	hundred gallons
Tranmission Weighting	0.0946		Average system hourly load						
Distribution Weighting	0.9054		Average system hourly load - max day with fire protection (incremental)						
Combined Allocator	**0.7189**	**0.1629**	**0.0095**	**0.0082**	**0.0047**	**0.0215**	**0.0742**	**1.0000**	

7. HYDRANTS

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Total Hydrants	-	-	-	-	-	39	33,301	33,340	
Allocator	**-**	**-**	**-**	**-**	**-**	**0.00116**	**0.99884**	**1.00000**	

Missouri-American Water Company
Cost of Service Study - Class Allocators
Case No: WR-2024-0320, SR-2024-0321

8. METERS

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Weighting
5/8-METER	286,221	7,696	1	-	-			293,917	1.0
3/4-METER	24,510	3,064	-	-	-			27,574	1.5
1-METER	10,179	2,207	1	-	-			12,386	2.5
1.5-METER	821	1,122	1	-	-			1,944	5.0
2-METER	979	3,326	29	-	-			4,333	8.0
3-METER	14	330	18	-	-			362	16.0
4-METER	15	234	39	-	-			287	25.0
6-METER	16	221	39	-	-			276	50.0
8-METER	30	258	34	-	-			322	80.0
10-METER	2	55	21	-	-			78	115.0
12-METER	-	-	-	-	-			-	215.0
16-METER	-	-	-	-	-			-	320.0
Total	364,402	99,171	8,560	-	-	-		472,133	-----
Allocator	**0.77182**	**0.21005**	**0.01813**	**-**	**-**	**-**		**1.00000**	

9. SERVICES

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Weighting
5/8-METER	286,221	7,696	1	-	-	-		293,917	1.0
3/4-METER	24,510	3,064	-	-	-	-		27,574	1.0
1-METER	10,179	2,207	1	-	-	-		12,386	2.9
1.5-METER	821	1,122	1	-	-	-		1,944	4.0
2-METER	979	3,326	29	-	-	143		4,476	5.6
3-METER	14	330	18	-	-	3		365	5.6
4-METER	15	234	39	-	-	544		831	6.4
6-METER	16	221	39	-	-	2,308		2,584	9.9
8-METER	30	258	34	-	-	1,373		1,694	9.9
10-METER	2	55	21	-	-	46		125	9.9
12-METER	-	-	-	-	-	74		74	12.2
16-METER	-	-	-	-	-	-		-	12.2
Total	350,037	48,834	1,444	-	-	42,144		442,458	-----
Allocator	**0.79112**	**0.11037**	**0.00326**	**-**	**-**	**0.09525**		**1.00000**	

10. CUSTOMERS

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total
Total Customers	323,252	18,448	160	4	2	7,667		349,533
Allocator	**0.92481**	**0.05278**	**0.00046**	**0.00001**	**0.00001**	**0.02193**		**1.00000**

11. METERED CUSTOMERS

MIEC St. Louis County Class Cost of Service Study
Case No: WR-2024-0320, SR 2024-0321
Tab: Class Allocator

Missouri-American Water Company
Cost of Service Study - Class Allocators
Case No: WR-2024-0320, SR-2024-0321

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total
Total Customers	323,252	18,448	160	4	2	7,667		349,533
Allocator	**0.92481**	**0.05278**	**0.00046**	**0.00001**	**0.00001**	**0.02193**		**1.00000**

Missouri-American Water Company
Cost of Service Study - Allocator Summary
Case No: WR-2024-0320, SR-2024-0321

Alloc	Description	Source of Supply	Pumping	Water Treatment	Transmission	Distribution	Storage	Meters	Services	Customers	Hydrants	Total	Notes
A	Source of Supply	1.00000	-	-	-	-	-	-	-	-	-	1.00000	
B	Pumping	-	1.00000	-	-	-	-	-	-	-	-	1.00000	
C	Water Treatment	-	-	1.00000	-	-	-	-	-	-	-	1.00000	
D	Transmission	-	-	-	1.00000	-	-	-	-	-	-	1.00000	
E	Distribution	-	-	-	-	1.00000	-	-	-	-	-	1.00000	
F	Storage	-	-	-	-	-	1.00000	-	-	-	-	1.00000	
G	Meters	-	-	-	-	-	-	1.00000	-	-	-	1.00000	
H	Services	-	-	-	-	-	-	-	1.00000	-	-	1.00000	
I	Customers	-	-	-	-	-	-	-	-	1.00000	-	1.00000	
J	Hydrants	-	-	-	-	-	-	-	-	-	1.00000	1.00000	
K	Mains	-	-	-	0.09464	0.90536	-	-	-	-	-	1.00000	
1	T/D Oper. Expense	-	-	-	0.06317	0.60429	-	0.33254	-	-	-	1.00000	
2	T/D Maint.. Expense	-	-	-	0.03156	0.30191	0.04204	0.08956	0.19427	-	0.34067	1.00000	
3	Fixed O&M	0.03029	0.07685	0.16686	0.02796	0.26744	0.00909	0.13061	0.04200	0.17525	0.07365	1.00000	
4	Labor	0.01153	0.11742	0.25685	0.03191	0.30525	0.00606	0.15683	0.02809	0.03693	0.04912	1.00000	
5	Net Plant (less gen. and int.)	0.02271	0.03658	0.07645	0.05842	0.55930	0.00572	0.10767	0.08945	0.01034	0.03337	1.00000	
6	Rate Base	0.02564	0.04145	0.08665	0.05569	0.53323	0.00646	0.11942	0.08513	0.01140	0.03493	1.00000	
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Alloc	Description	Residential	Non-Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total
1	Total Usage	0.56728	0.19511	0.12305	0.04500	0.06826	0.00130	-	1.00000
2	Base/Extra Daily	0.59462	0.21597	0.09737	0.03854	0.05278	0.00072	-	1.00000
3	Base/Extra Daily w/ Fire	0.56481	0.20522	0.09227	0.03655	0.05000	0.01145	0.03970	1.00000
4	Base/Extra Hourly w/ Fire	0.73504	0.15853	0.00082	0.00526	-	0.02251	0.07783	1.00000
5	Storage	0.65276	0.13207	0.05418	0.01944	0.02659	0.02590	0.08905	1.00000
7	Hydrants	-	-	-	-	-	0.00116	0.99884	1.00000
8	Meters	0.77182	0.21005	0.01813	-	-	-	-	1.00000
9	Services	0.79112	0.11037	0.00326	-	-	0.09525	-	1.00000
10	Customers	0.92481	0.05278	0.00046	0.00001	0.00001	0.02193	-	1.00000
11	T/D Oper. Expense	0.73652	0.17861	0.01235	0.00549	0.00316	0.01433	0.04954	1.00000
12	T/D Maint.. Expense	0.48999	0.10014	0.00770	0.00356	0.00270	0.02715	0.36877	1.00000
13	Fixed O&M	0.67505	0.14900	0.03216	0.01302	0.01589	0.01553	0.09935	1.00000
14	Labor	0.64968	0.17579	0.04344	0.01753	0.02179	0.01248	0.07929	1.00000
15	Net Plant (less gen. and int.)	0.67872	0.16670	0.02797	0.01258	0.01371	0.02189	0.07842	1.00000
16	Rate Base	0.67411	0.16843	0.03052	0.01334	0.01500	0.02087	0.07774	1.00000
17	Mains	0.71893	0.16295	0.00948	0.00823	0.00473	0.02147	0.07422	1.00000

Missouri-American Water Company

Company Full Certificated Name

Do not abbreviate; include any Commission approved AKA/DBA/Fictitious Name, if applicable.

WATER and/or SEWER ANNUAL REPORT

LARGE COMPANY

(with 8,000 or more customers)

TO THE

MISSOURI PUBLIC SERVICE COMMISSION

For the calendar year of

January 1 - December 31, 2023

This filing is required pursuant to Commission Rule 20 CSR 4240-10.145 and/or Section 393.140, RSMo.

Please indicate which type of service the Company is certificated to provide by checking the appropriate box(es). *(Check all that apply.)*

☑ **Water Service Provider**

☐ **Sewer Service Provider**

Please choose one of the following filing type options:

◉ **Public Submission** (NOT Confidential)

○ **Non-Public Submission (Confidential / Filed Under Seal)**
For this filing to be considered Confidential, additional submission of materials is required pursuant to Commission Rule 20 CSR 4240-2.135.

Excel Issue Date: 5/10/2023

(To be used when filing under seal.)

TABLE OF CONTENTS

Company Name **Missouri-American Water Company**

FEET OF TRANSMISSION AND DISTRIBUTION MAINS
St. Louis

1. Explain any important items included in Column (h).
2. New mains are those laid primarily for the purpose of serving new customers; replacements are mains laid to serve customers already receiving water service, regardless of the size of mains replaced.

Kind of Pipe (case iron, galvanized, steel, concrete, asbestos, plastic, etc.) (a)	Diameter in Inches (b)	In Use at Beginning of Year (in feet) (c)	Added During the Year (in feet)			Retirements During the Year (in feet) (g)	Adjustments Debit (Credit) (in feet) (h)	In Use at End of Year (in feet) (i)
			New Mains (d)	Replacements (e)	Total (f)			
Transmission Mains:								
DI, CI, HDPE, PVC	16	462,141	72	9,253	9,325	8,014		463,452
DI, CI	18	1,106			-			1,106
DI, CI, PVC	20	813,620	892	1,107	1,999	3,282		812,337
DI, CI, HDPE	24	399,608	2	8,147	8,149	4		407,753
DI, CI	30	264,088		25	25	11		264,102
HDPE	32	1,805			-			1,805
DI, CI, AC	36	277,268	5,295	1,100	6,395	329		283,334
DI, CI	42	70,374			-			70,374
DI, CI, Gal	48	87			-			87
Gal	54	178			-			178
DI, CI, AC	54	6,998	350		350			7,348
DI, CI, AC	60	4,938		-	-			4,938
Total Transmission Mains		2,302,213	6,611	19,632	26,243	11,640	-	2,316,816
Distribution Mains:								
DI, CI, PVC, AC, Galv	4	473,035	446	392	838	7,958		465,915
DI, CI, PVC, AC	6	11,525,934	2,902	15,468	18,370	106,056		11,438,248
DI, CI, PVC, AC	8	7,063,531	31,601	199,106	230,707	17,302		7,276,936
HDPE	8	25,192			-	-		25,192
DI, CI, PVC	10	108,431		56	56	1,484		107,003
DI, CI, PVC	12	2,766,384	3,577	40,894	44,471	6,359		2,804,496
HDPE	12	13,746		383	383	-		14,129
DI,CI, PVC, Galv	3 or less	30,396		470	470	712		30,154
Misc		642			-			642
		-			-			-
		-			-			-
		-			-			-
					-			-
					-			-
					-			-
					-			-
					-			-
					-			-
					-			-
Total Distribution Mains		22,007,291	38,526	256,769	295,295	139,871	-	22,162,714

SERVICES

Size and Kind of Pipe (a)	Utility Owned Services In Use				Services In Use at End of Year not Included in Plant Accts. (f)
	Beginning of Year (b)	Added During the Year (c)	Removed or Disconnected During the Year (d)	End of Year (e)	
1" Copper	14,333	12,492	74	26,751	
1/2"	-	9	-		
1-1/2" Copper	1,016	55	-	1,071	
1-1/4" Copper	53	17	-	70	
2" Copper	256	65	3	318	
3" Copper	17		-	17	
4" Copper	7		-	7	
3/4" Copper	2,287	142	134	2,295	
12" Ductile Iron	5			5	
10" Ductile Iron	4			4	
8" Ductil Iron	73	4		77	
6" Ductile	65	6		71	
4" Ductile Iron	20			20	
3" Ductil Iron	1			1	
				-	
				-	
				-	
Total	18,137	12,790	211	30,707	-

Indicates formula cell.

For the calendar year of January 1 - December 31, **2023**