Exhibit No.:	
Issues:	Cost of Service, Revenue Allocation, and Rate Design
Witness:	Jessica A. York
Type of Exhibit:	Direct/Rebuttal Testimony
Sponsoring Party:	Midwest Energy Consumers Group
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

Midwest Energy Consumers Group

REDACTED VERSION

December 20, 2024

Project 11653.1

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 the firm of 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 Midwest Energy Consumers Group 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.

TAMMY S. KLOSSNER
Notary Public - Notary Seal
STATE OF MISSOURI
St. Charles County
My Commission Expires: Mar. 18, 2027
Commission # 15024862

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 Midwest Energy Consumers Group ("MECG").

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 the Other Missouri ("MO") water district, as well as the Company's proposed revenue apportionment and rate design for this district. I will also address the Company's proposal to implement a Revenue Stabilization Mechanism ("RSM").

Note that this testimony pertains to the Other MO district (i.e. non-St. Louis County) only, even if I do not specifically reference it.

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 TESTIMONY AND RECOMMENDATIONS.

A My findings and recommendations are as follows:

- I recommend the Commission reject MAWC's proposed revenue spread for the Other MO district, as it is based on an inaccurate water CCOSS model.
- The Company's water CCOSS for its Other MO district 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 make 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.
    - Incorrect 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, inconsistent with the load characteristics of the individual districts that comprise the Other MO service area, and inconsistent with the methodology described in the American Water Works Association's ("AWWA") Manual M1.

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

- If my corrections to the MAWC's COSS are not adopted, I continue to recommend that no class receive a rate increase greater than 1.25 times 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, MAWC's proposed revenue apportionment does not follow the results of its CCOSS models.

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

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

Q ARE YOU RECOMMENDING AN ALTERNATIVE REVENUE APPORTIONMENT?

A Yes. I am recommending an alternative revenue apportionment for MAWC's Other MO customer classes based on my corrections to the Company's Other MO CCOSS model, with rates based on each district's respective CCOSS. My primary recommended revenue apportionment is shown below in Table JAY-2, using the Company's claimed revenue requirement.

TABLE JAY-2

MECG's CCOSS vs. Primary Proposed Revenue Spread for Other MO

Line	Customer Class	Current Revenue[1]	Increase to Reach COS[1]			MECG Proposed Increase[2]		
			Amount	Percent	Index	Amount	Percent	Index
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Other MO							
1	Residential	$ 68,796,681	$ 39,676,170	57.7%	1.22	$ 40,574,294	59.0%	1.25
2	Non-Residential	30,997,236	6,350,317	20.5%	0.43	9,460,015	30.5%	0.65
3	Rate J	10,574,416	881,866	8.3%	0.18	1,942,711	18.4%	0.39
4	Rate B	4,406,843	1,377,786	31.3%	0.66	1,819,888	41.3%	0.88
5	Rate P	1,091,501	2,268,309	207.8%	4.40	643,736	59.0%	1.25
6	Private Fire	1,926,258	5,022,247	260.7%	5.53	1,136,051	59.0%	1.25
7	Total	$ 117,792,935	$ 55,576,695	47.2%	1.00	$ 55,576,695	47.2%	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 Other MO 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 1.25 times the district average.

In the event that my corrections to MAWC's CCOSS are not adopted, I continue to recommend that no class receive an increase greater than 1.25 times the system average. Such an increase will still make a movement toward cost of service, while mitigating rate shock.

III. WATER CLASS COST OF SERVICE STUDY

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 the Other MO district are derived on Schedule MWM-2, pages 24 through 28.

Q DO YOU AGREE WITH MR. MCCLELLAN'S WATER CCOSS FOR THE OTHER MO DISTRICT?

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 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 is inaccurate. Fourth, the system load factors used to assign costs between the base and extra-capacity functions should be modified 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.

Each of these recommended corrections to the Other MO 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-2 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.

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.

[1]MAWC's response to Data Requests MECG 2.3 and MIEC 1-15. Attached as Schedule JAY-1 at 1-2.

[2]*Id.*

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 actually used by MAWC to provide fire protection service. The Company has not provided evidence showing that non-potable water is indeed being used to serve the fire service classes. In fact, the Company has confirmed that potable water is 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.

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]

[3] *Id.*

[4] Factor 3 is developed on Schedule MWM-2 at page 24.

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.

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. For example, MAWC purchases power from Ameren Missouri. Ameren Missouri's tariffs contain seasonally differentiated energy charges for all rate

[5]Factor 1 is also developed on Schedule MWM-2 at page 24.

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 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.

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.

[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.

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 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.

[7]Direct Testimony of Mr. McClellan at page 10, lines 16-18.
[8]*Id.*
[9]*Id.* at lines 19-21.
[10]*Id.* at page 11, lines 7-9.
[11]*Id.* at lines 9-12.

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 OTHER MO WATER CCOSS?

A The Company has used a distribution multiplier of 11% for the Industrial class. This is shown on Schedule MWM-2 at page 22. This means the Company estimates that 11% 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's calculation of the Rate J distribution multiplier was provided in response to MIEC 1-12.[12] It is based on water sales by main size for a subset of the industrial customers taking service from MAWC in the Other MO district. There are two issues with the Company's distribution multiplier. First, the Company's calculation omits certain customers from the calculation of the Rate J distribution multiplier without

[12] Attached as Redacted Confidential Schedule JAY-3.

explanation. Correcting the calculation to include all industrial customers in the list for Other MO results in a distribution multiplier of 6.5%.

In addition, using water consumption to develop the distribution multiplier may overstate the portion of distribution system investment and expenses that is required to provide service to these large customers. MAWC should also consider the length of distribution main serving the Rate J customers, consistent with its past practice for St. Louis County Rate J customers.

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 PLEASE DISCUSS MAWC'S REVIEW OF THE LENGTH OF DISTRIBUTION MAINS SERVING RATE J CUSTOMERS IN ST. LOUIS COUNTY.

A In Case No. WR-2008-0311, MAWC witness Paul Herbert performed an analysis of customers to determine the size of main each Rate J customer was served from.[13] The analysis showed that out of 215 Rate J customers, 112 customers representing 61.8% of the Rate J consumption were connected to mains 12-inches and larger.[14] The

[13]Case No. WR-2008-0311, Direct Testimony of Paul Herbert at page 10.
[14]*Id.*

remaining 103 customers with 38.2% of the consumption were connected to mains smaller than 12-inches.[15]

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.[16] 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.[17] The 225,000 feet represented about 1.3% of the total feet of distribution mains on the system at the time.[18] 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.[19]

Mr. Herbert did not conduct the same detailed analysis for Rate J customers outside of St. Louis County. However, he did recognize that one of the six largest industrial customers in Joplin was served from a distribution main, but that it was located a short distance from transmission mains.[20] Thus, he concluded it was reasonable to exclude the usage for that customer from the Rate J class for purposes of allocating distribution costs.[21]

Q WHAT IS YOUR RECOMMENDATION REGARDING THE RATE J DISTRIBUTION MULTIPLIER FOR USE IN THE OTHER MO WATER CCOSS?

A Absent information on the length of distribution mains serving Rate J customers outside of St. Louis County, I recommend that the distribution multiplier used in the Other MO

[15] *Id.*
[16] *Id.*
[17] *Id.*
[18] *Id.*
[19] *Id.*
[20] *Id.* at page 9, lines15-17.
[21] *Id.* at lines 17-19.

water CCOSS be corrected to reflect 6.5% as calculated from MAWC's response to Data Request MIEC 1-12. In addition, I recommend the Commission direct the Company to conduct a study of the length of distribution main serving its Rate J customers in the Other MO service area, like what was described by MAWC witness Mr. Herbert in the 2008 rate case for St. Louis County customers.

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-2 at page 23:

- System load factor (max day): 71.32%.
- System load factor (max day with fire): 62.07%.
- System load factor (hourly): 14.57%.
- System load factor (hourly with fire): 12.04%.

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 for the Other MO service area has increased significantly over time and is inconsistent with the load profiles of the underlying service areas that comprise the Other MO district. In addition, 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.[22] 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). Further, 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.

Q HAVE YOU REVIEWED THE SYSTEM LOAD FACTORS OF THE VARIOUS DISTRICTS THAT COMPRISE THE OTHER MO SERVICE AREA?

A Yes. The Company last provided district-specific CCOSS models in the 2015 rate case (Case No. WR-2015-0301), in addition to a single CCOSS with all districts combined. The district-specific system load factors identified in that case are summarized in Table JAY-3.

[22]MAWC's Response to Data Request MIEC 1-08. Attached as Schedule JAY-1 at pages 3-4.

TABLE JAY-3

District-Specific System Load Factors
From Case No. WR-2015-0301

Line	Description	System Max Day Ratio[1] (1)	Average Daily Use (kgal) (2)	System Load Factor (3)
	Other MO Service Areas			
1	Brunswick[1]	1.90	990	52.6%
2	Jeff City[2]	2.10	28,947	47.6%
3	Joplin[3]	1.70	73,472	58.8%
4	Mexico[4]	1.40	14,688	71.4%
5	Platte County[5]	2.50	20,765	40.0%
6	St. Joseph[6]	1.50	120,921	66.7%
7	Warrensburg[7]	1.70	20,296	58.8%
8	Total / Average	1.66	280,079	60.3%
9	**St. Louis Metro[8]**	2.10	11,779,990	47.6%
10	**Total All Districts[9]**	2.00	1,507,424	50.0%

Sources:
[1] Direct Testimony of Paul Herbert, Schedule C-BRU, page BRU-10.
[2] Direct Testimony of Paul Herbert, Schedule C-JFC, page JFC-9.
[3] Direct Testimony of Paul Herbert, Schedule C-JOP, page JOP-10.
[4] Direct Testimony of Paul Herbert, Schedule C-MEX, page MEX-8.
[5] Direct Testimony of Paul Herbert, Schedule C-PTC, page PTC-8.
[6] Direct Testimony of Paul Herbert, Schedule C-SJO, page SJO-8.
[7] Direct Testimony of Paul Herbert, Schedule C-WAR, page WAR-8.
[8] Direct Testimony of Paul Herbert, Schedule C-SLM, page SLM-11.
[9] DirectTestimony of Paul Herbert, Schedule C, page II-12.

As shown in the table, the district-specific system load factors range from about 40% to 71%. However, on a consumption-weighted average basis, the Other MO system load factor is about 60%. Further, the St. Louis Metro[23] system load factor was about 48% in the 2015 case. Thus, the data in the table suggests that the total system load

[23] Included St. Louis County, St. Charles County, and Warren County, per Case No. WR-2015-0301, May 26, 2016 Report and Order at page 6.

factor (all districts combined) was about 48%, on a consumption-weighted average basis. This is in line with the 50% system load factor used by the Company in its consolidated CCOSS for all districts.

The Company filed a consolidated water CCOSS using a 50% maximum day system load factor in its 2017 rate case as well.[24]

Q WHEN DID THE COMPANY FIRST SIGNIFICANTLY INCREASE ITS MAXIMUM DAY SYSTEM LOAD FACTOR USED IN THE WATER CCOSS?

A In Case No WR-2020-0344, MAWC's proposed consolidated water CCOSS reflected a maximum day system load factor of 63%,[25] representing a significant increase from prior cases. Then, in the 2022 rate case, the Company's water CCOSS for the Other MO service area reflected an even higher maximum day system load factor of 71.24%.[26] As previously noted, the Other MO system load factor in this case is 71.32%. The maximum day system load factor in the current case and in the 2022 rate case reflect a three-year average.

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

[24] Case No. WR-2017-0285. Direct Testimony of Constance Heppenstall, Schedule C, page II-12.

[25] Case No. WR-2020-0344. Direct Testimony of Charles Rea, Schedule CBR-1, Usage Statistics tab, page 12 of 17.

[26] Case No. WR-2022-0303. Direct Testimony of Wesley Selinger, Schedule WES-2, Usage Statistics tab, page 2.

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.[27] This indicates the need for a single, high peak period demand ratio and not an average over multiple years.

The Company's approach does not reflect cost causation principles and should be rejected.

Q IS THE OTHER MO DISTRICT'S MAXIMUM DAY SYSTEM LOAD FACTOR IN THE CURRENT CASE CONSISTENT WITH THE UNDERLYING LOAD PROFILES OF THE VARIOUS SYSTEMS THAT COMPRISE THE OTHER MO SERVICE AREA?

A No. The 71% system load factor used in this case does not accurately represent the extra capacity that was required in each underlying distinct water system to meet the extra-capacity demands of the weather sensitive customers taking service from those systems. Instead, the Company's increasing system load factor over the years has unjustifiably shifted costs to large volume, non-weather sensitive users over time 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.

In addition, the Company's Other MO system maximum day load factor is inconsistent with the customer class capacity factors used in the water CCOSS.

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

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)	174,225	90,882	93,325	43,907	27,751	430,089
2	Max Day Use (kgal)	348,697	192,745	109,655	52,832	35,334	739,263
3	Load Factor	50.0%	47.2%	85.1%	83.1%	78.5%	58.2%
4	MAWC Applied System Load Factor						71.3%

Source: Schedule MWM-2, page 22.

As shown in the table, the customer class peaking factors indicate a system load factor of about 58.2%, while the Company has applied a system load factor of 71.3% to its water CCOSS. Notably, the system load factor of 58.2% is in line with the average Other MO system load factor calculated in Table JAY-3 based on the underlying district-specific load factors.

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

A I recommend the system maximum day load factor be modified to be consistent with the maximum day system load factor indicated by the customer class peaking factors. As shown in Table JAY-4, this results in a maximum day system load factor of 58.2%. The 58.2% system load factor is also reasonable because it aligns with the district-specific load factors identified by MAWC in prior rate cases, which means it classifies and allocates capacity costs between base use and extra-capacity demand in a manner that is more aligned with cost causation.

III.E. 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 the Other MO service area.

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 the Other MO service area to 6.5%. I recommend applying a maximum day system load factor of 58.2% to the Other MO

water CCOSS to more accurately classify and allocate capacity costs across customer classes.

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 MECG's recommended corrections to the CCOSS are adopted, I recommend bringing the Other MO 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. 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.[28]

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.

[28]Direct Testimony of Max McClellan at page 28, lines 21-23 through page 29, line 1.

V. 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.[29] He maintains that this mismatch in volumetric revenue relative to fixed costs makes the Company's ability to recover its fixed costs and invest 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

[29]Direct Testimony of Charles Rea at page 41, lines 12-16.

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.

VI. 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.[30] The Company claims that these costs are outside of the Company's control.[31]

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

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

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

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.

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.

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MECG 2.3

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

Requested From: Ashley M. Randell

Date Requested: 11/13/2024

Information Requested:

Please refer to Schedule MWM-2, page 1 of 28.
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: Tim Opitz (Tim.opitz@opitzlawfirm.com)

Information Provided:

Please see the Company's response for 2024 GRC - MIEC 1-15 submitted via email on November 7, 2024.

Responsible Witness: Max W. McClellan

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

MECG Other MO 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	$ 12,003,695	3	Base/Extra Daily	$ 5,047,454	$ 2,790,036	$ 1,587,182	$ 764,712	$ 511,442	$ 311,550	$ 991,319	$ 12,003,695	$ -
Variable	$ 1,422,327	1	Total Usage	$ 576,051	$ 300,488	$ 308,566	$ 145,172	$ 91,757	$ 293	$ -	$ 1,422,327	$ -
Power and Pumping Expenses												
Fixed	$ 12,454,630	3	Base/Extra Daily w/ Fire	$ 5,237,068	$ 2,894,847	$ 1,646,807	$ 793,439	$ 530,655	$ 323,254	$ 1,028,559	$ 12,454,630	$ -
Variable	$ -	1	Total Usage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Treatment												
Fixed	$ 29,488,850	3	Base/Extra Daily	$ 12,399,816	$ 6,854,136	$ 3,899,148	$ 1,878,627	$ 1,256,432	$ 765,369	$ 2,435,322	$ 29,488,850	$ -
Variable	$ 5,833,391	1	Total Usage	$ 2,362,560	$ 1,232,393	$ 1,265,522	$ 595,392	$ 376,322	$ 1,202	$ -	$ 5,833,391	$ -
Transmission	$ 12,090,833	3	Base/Extra Daily w/ Fire	$ 5,084,095	$ 2,810,290	$ 1,598,704	$ 770,263	$ 515,154	$ 313,812	$ 998,515	$ 12,090,833	$ -
Distribution	$ 47,519,699	4	Base/Extra Hourly w/ Fire	$ 24,674,418	$ 6,831,778	$ 153,462	$ 646,817	$ -	$ 3,636,808	$ 11,576,417	$ 47,519,699	$ -
Storage	$ 3,934,483	5	Storage	$ 2,659,093	$ 683,770	$ 161,989	$ 81,308	$ 59,352	$ 69,169	$ 219,801	$ 3,934,483	$ -
Meters	$ 18,975,414	8	Meters	$ 14,191,002	$ 4,346,467	$ 331,032	$ 89,879	$ 17,034	$ -	$ -	$ 18,975,414	$ -
Services	$ 13,455,827	9	Services	$ 10,071,890	$ 2,127,884	$ 57,798	$ 17,657	$ 1,485	$ 1,179,114	$ -	$ 13,455,827	$ -
Customers	$ 8,074,560	10	Customers	$ 7,222,104	$ 672,222	$ 4,091	$ 1,364	$ 178	$ 174,601	$ -	$ 8,074,560	$ -
Hydrants	$ 8,115,923	7	Hydrants	$ -	$ -	$ -	$ -	$ -	$ 173,335	$ 7,942,588	$ 8,115,923	$ -
Total	**$ 173,369,630**			**$ 89,525,551**	**$ 31,544,311**	**$ 11,014,301**	**$ 5,784,629**	**$ 3,359,810**	**$ 6,948,505**	**$ 25,192,523**	**$ 173,369,630**	$ -
				51.64%	18.19%	6.35%	3.34%	1.94%	4.01%	14.53%	100.00%	
Rate Year Water Revenue	$ 117,792,936			$ 68,796,681	$ 30,997,236	$ 10,574,416	$ 4,406,843	$ 1,091,501	$ 1,926,258	$ -	$ 117,792,936	$ -
Other Water Operating Revenue:	$ 1,546,294											
Increase	$ 55,576,695			$ 20,728,870	$ 547,075	$ 439,885	$ 1,377,786	$ 2,268,309	$ 5,022,247	$ 25,192,523	$ 55,576,695	$ 0
Percent Increase	47.2%			30.13%	1.76%	4.16%	31.26%	207.82%	260.73%	0.00%	47.18%	
Rate Year Revenue				$ 68,796,681	$ 30,997,236	$ 10,574,416	$ 4,406,843	$ 1,091,501	$ 1,926,258	$ -	$ 117,792,936	
Cost of Service Increase				$ 20,728,870	$ 547,075	$ 439,885	$ 1,377,786	$ 2,268,309	$ 5,022,247	$ 25,192,523	$ 55,576,695	
Allocation of Public Fire				$ 18,947,300	$ 5,803,242	$ 441,981				$ (25,192,523)	$ -	
Revenue Target				$ 108,472,851	$ 37,347,553	$ 11,456,283	$ 5,784,629	$ 3,359,810	$ 6,948,505	$ -	$ 173,369,631	
Percent Increase				57.7%	20.5%	8.3%	31.3%	207.8%	260.7%	0.0%	47.2%	

MECG Other MO 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
Source of Supply Expense															
Operating Expense															
Purchased Water	$ 1,422,327	A	Source of Supply	$ 1,422,327	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,422,327	$ -
Fuel and Power	$ 2,601,526	A	Source of Supply	$ 2,601,526	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,601,526	$ -
Salaries and Wages	$ 1,701	A	Source of Supply	$ 1,701	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,701	$ -
Contract Services - Other	$ 71,816	A	Source of Supply	$ 71,816	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 71,816	$ -
Building Maintenance and Services	$ 493,463	A	Source of Supply	$ 493,463	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 493,463	$ -
Miscellaneous	$ 159	A	Source of Supply	$ 159	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 159	$ -
Telelcommunications	$ 2,793	A	Source of Supply	$ 2,793	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,793	$ -
Postage	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office supplies and services	$ 4,360	A	Source of Supply	$ 4,360	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,360	$ -
Materials & Supplies	$ 3,283	A	Source of Supply	$ 3,283	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,283	$ -
Rents-Property	$ 1,747	A	Source of Supply	$ 1,747	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,747	$ -
Rents-Equipment	$ 1,651	A	Source of Supply	$ 1,651	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,651	$ -
Transportation	$ 539	A	Source of Supply	$ 539	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 539	$ -
	$ 4,605,365			$ 4,605,365	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,605,365	$ -
Maintenance Expense															
Salaries and Wages	$ 71,499	A	Source of Supply	$ 71,499	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 71,499	$ -
Materials & Supplies	$ 34,552	A	Source of Supply	$ 34,552	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 34,552	$ -
Transportation	$ 1,384	A	Source of Supply	$ 1,384	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,384	$ -
Miscellaneous	$ 6,422	A	Source of Supply	$ 6,422	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,422	$ -
Contract Services - Eng	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contract Services - Other	$ 46,930	A	Source of Supply	$ 46,930	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 46,930	$ -
	$ 160,788			$ 160,788	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 160,788	$ -
Total SS Expense	**$ 4,766,153**			**$ 4,766,153**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 4,766,153**	**$ -**
Power and Pumping Expenses															
Operating Expense															
Fuel and Power	$ 1,860,865	B	Pumping	$ -	$ 1,860,865	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,860,865	$ -
Salaries and Wages	$ 528,719	B	Pumping	$ -	$ 528,719	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 528,719	$ -
Employee Benefits	$ 680	B	Pumping	$ -	$ 680	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 680	$ -
Building Maintenance and Services	$ 4,233	B	Pumping	$ -	$ 4,233	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,233	$ -
Miscellaneous	$ 1,719	B	Pumping	$ -	$ 1,719	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,719	$ -
Office supplies and services	$ 116	B	Pumping	$ -	$ 116	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 116	$ -
Materials & Supplies	$ 5,982	B	Pumping	$ -	$ 5,982	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,982	$ -
Rents-Equipment	$ 1,469	B	Pumping	$ -	$ 1,469	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,469	$ -
Transportation	$ 38,552	B	Pumping	$ -	$ 38,552	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 38,552	$ -
	$ 2,442,334			$ -	$ 2,442,334	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,442,334	$ -
Maintenance Expense															
Salaries and Wages	$ 216,447	B	Pumping	$ -	$ 216,447	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 216,447	$ -
Transportation	$ 2,047	B	Pumping	$ -	$ 2,047	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,047	$ -
Contract Services - Eng	$ 4,267	B	Pumping	$ -	$ 4,267	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,267	$ -
Contract Services - Other	$ 250,035	B	Pumping	$ -	$ 250,035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 250,035	$ -
Miscellaneous	$ 1,395	B	Pumping	$ -	$ 1,395	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,395	$ -
Materials & Supplies	$ 58,529	B	Pumping	$ -	$ 58,529	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 58,529	$ -
	$ 532,719			$ -	$ 532,719	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 532,719	$ -
Total Pumping Expense	**$ 2,975,053**			**$ -**	**$ 2,975,053**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,975,053**	**$ -**
Water Treatment															
Operating Expense															
Fuel and Power	$ 383,380	C	Water Treatment	$ -	$ -	$ 383,380	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 383,380	$ -
Chemicals	$ 4,034,489	C	Water Treatment	$ -	$ -	$ 4,034,489	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,034,489	$ -
Waste Disposal	$ 1,798,903	C	Water Treatment	$ -	$ -	$ 1,798,903	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,798,903	$ -
Salaries and Wages	$ 1,153,501	C	Water Treatment	$ -	$ -	$ 1,153,501	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,153,501	$ -
Employee Benefits	$ 13	C	Water Treatment	$ -	$ -	$ 13	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13	$ -
Contract Services - Eng	$ 4,927	C	Water Treatment	$ -	$ -	$ 4,927	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,927	$ -
Contract Services - Other	$ 45,825	C	Water Treatment	$ -	$ -	$ 45,825	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45,825	$ -
Building Maintenance and Services	$ 49,538	C	Water Treatment	$ -	$ -	$ 49,538	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 49,538	$ -
Miscellaneous	$ 131,113	C	Water Treatment	$ -	$ -	$ 131,113	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 131,113	$ -
Telelcommunications	$ 2,824	C	Water Treatment	$ -	$ -	$ 2,824	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,824	$ -
Postage	$ -	C	Water Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office supplies and services	$ 15,896	C	Water Treatment	$ -	$ -	$ 15,896	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,896	$ -
Materials & Supplies	$ 22,758	C	Water Treatment	$ -	$ -	$ 22,758	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,758	$ -
Rents-Property	$ 39	C	Water Treatment	$ -	$ -	$ 39	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 39	$ -
Rents-Equipment	$ (39,231)	C	Water Treatment	$ -	$ -	$ (39,231)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (39,231)	$ -
Transportation	$ 1,185	C	Water Treatment	$ -	$ -	$ 1,185	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,185	$ -
	$ 7,605,159			$ -	$ -	$ 7,605,159	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,605,159	$ -

MECG Other MO 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
Maintenance Expense															
Salaries and Wages	$ 476,508	C	Water Treatment	$ -	$ -	$ 476,508	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 476,508	$ -
Transportation	$ 3,901	C	Water Treatment	$ -	$ -	$ 3,901	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,901	$ -
Contract Services - Eng	$ 12,916	C	Water Treatment	$ -	$ -	$ 12,916	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,916	$ -
Contract Services - Other	$ 205,925	C	Water Treatment	$ -	$ -	$ 205,925	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 205,925	$ -
Miscellaneous	$ 27,803	C	Water Treatment	$ -	$ -	$ 27,803	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,803	$ -
Materials & Supplies	$ 362,271	C	Water Treatment	$ -	$ -	$ 362,271	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 362,271	$ -
	$ 1,089,324			$ -	$ -	$ 1,089,324	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,089,324	$ -
Total Water Treatment Expense	**$ 8,694,482**			**$ -**	**$ -**	**$ 8,694,482**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 8,694,482**	**$ -**
Transmission & Distribution Expense															
Operating Expense															
Fuel and Power	$ 304,396	1	T/D Oper. Expense	$ -	$ -	$ -	$ 41,165	$ 161,787	$ -	$ 101,444	$ -	$ -	$ -	$ 304,396	$ -
Salaries and Wages	$ 2,139,209	1	T/D Oper. Expense	$ -	$ -	$ -	$ 289,294	$ 1,136,992	$ -	$ 712,923	$ -	$ -	$ -	$ 2,139,209	$ -
Employee Benefits	$ 2,884	1	T/D Oper. Expense	$ -	$ -	$ -	$ 390	$ 1,533	$ -	$ 961	$ -	$ -	$ -	$ 2,884	$ -
Contract Services - Eng	$ 4,310	1	T/D Oper. Expense	$ -	$ -	$ -	$ 583	$ 2,291	$ -	$ 1,436	$ -	$ -	$ -	$ 4,310	$ -
Contract Services - Other	$ 608,355	1	T/D Oper. Expense	$ -	$ -	$ -	$ 82,270	$ 323,341	$ -	$ 202,743	$ -	$ -	$ -	$ 608,355	$ -
Building Maintenance and Services	$ 140,430	1	T/D Oper. Expense	$ -	$ -	$ -	$ 18,991	$ 74,639	$ -	$ 46,800	$ -	$ -	$ -	$ 140,430	$ -
Miscellaneous	$ 53,784	1	T/D Oper. Expense	$ -	$ -	$ -	$ 7,273	$ 28,586	$ -	$ 17,924	$ -	$ -	$ -	$ 53,784	$ -
Telelcommunications	$ 17,373	1	T/D Oper. Expense	$ -	$ -	$ -	$ 2,349	$ 9,234	$ -	$ 5,790	$ -	$ -	$ -	$ 17,373	$ -
Postage	$ -	1	T/D Oper. Expense	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office supplies and services	$ 43,308	1	T/D Oper. Expense	$ -	$ -	$ -	$ 5,857	$ 23,018	$ -	$ 14,433	$ -	$ -	$ -	$ 43,308	$ -
Materials & Supplies	$ 198,111	1	T/D Oper. Expense	$ -	$ -	$ -	$ 26,791	$ 105,296	$ -	$ 66,024	$ -	$ -	$ -	$ 198,111	$ -
Rents-Property	$ 1,395	1	T/D Oper. Expense	$ -	$ -	$ -	$ 189	$ 741	$ -	$ 465	$ -	$ -	$ -	$ 1,395	$ -
Rents-Equipment	$ 19,250	1	T/D Oper. Expense	$ -	$ -	$ -	$ 2,603	$ 10,231	$ -	$ 6,415	$ -	$ -	$ -	$ 19,250	$ -
Transportation	$ 339,671	1	T/D Oper. Expense	$ -	$ -	$ -	$ 45,935	$ 180,535	$ -	$ 113,200	$ -	$ -	$ -	$ 339,671	$ -
	$ 3,872,475			$ -	$ -	$ -	$ 523,691	$ 2,058,224	$ -	$ 1,290,559	$ -	$ -	$ -	$ 3,872,475	$ -
Maintenance Expense															
Salaries and Wages	$ 609,326	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 41,412	$ 162,760	$ 25,559	$ 54,517	$ 117,865	$ -	$ 207,213	$ 609,326	$ -
Contract Services - Eng	$ 35,545	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 2,416	$ 9,494	$ 1,491	$ 3,180	$ 6,876	$ -	$ 12,088	$ 35,545	$ -
Contract Services - Other	$ 1,650,348	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 112,164	$ 440,831	$ 69,227	$ 147,658	$ 319,235	$ -	$ 561,234	$ 1,650,348	$ -
Transportation	$ 117,992	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 8,019	$ 31,517	$ 4,949	$ 10,557	$ 22,824	$ -	$ 40,125	$ 117,992	$ -
Miscellaneous	$ 283,548	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 19,271	$ 75,740	$ 11,894	$ 25,369	$ 54,848	$ -	$ 96,426	$ 283,548	$ -
Materials & Supplies	$ 483,294	2	T/D Maint.. Expense	$ -	$ -	$ -	$ 32,847	$ 129,095	$ 20,273	$ 43,241	$ 93,486	$ -	$ 164,354	$ 483,294	$ -
	$ 3,180,052			$ -	$ -	$ -	$ 216,129	$ 849,436	$ 133,393	$ 284,521	$ 615,133	$ -	$ 1,081,440	$ 3,180,052	$ -
Total T&D Expense	**$ 7,052,527**			**$ -**	**$ -**	**$ -**	**$ 739,820**	**$ 2,907,661**	**$ 133,393**	**$ 1,575,080**	**$ 615,133**	**$ -**	**$ 1,081,440**	**$ 7,052,527**	**$ -**
General Mains Expense															
Operations															
Salaries and Wages	$ 408,916	K	Mains	$ -	$ -	$ -	$ 82,941	$ 325,975	$ -	$ -	$ -	$ -	$ -	$ 408,916	$ -
Miscellaneous	$ 809	K	Mains	$ -	$ -	$ -	$ 164	$ 645	$ -	$ -	$ -	$ -	$ -	$ 809	$ -
	$ 409,725			$ -	$ -	$ -	$ 83,105	$ 326,620	$ -	$ -	$ -	$ -	$ -	$ 409,725	$ -
Maintenance Expense															
Salaries and Wages	$ 99,754	K	Mains	$ -	$ -	$ -	$ 20,233	$ 79,521	$ -	$ -	$ -	$ -	$ -	$ 99,754	$ -
Miscellaneous	$ 3,064	K	Mains	$ -	$ -	$ -	$ 621	$ 2,443	$ -	$ -	$ -	$ -	$ -	$ 3,064	$ -
	$ 102,818			$ -	$ -	$ -	$ 20,855	$ 81,963	$ -	$ -	$ -	$ -	$ -	$ 102,818	$ -
General Mains Expense	**$ 512,543**			**$ -**	**$ -**	**$ -**	**$ 103,959**	**$ 408,584**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 512,543**	**$ -**
Storage Expense															
Operating Expense															
Salaries and Wages	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Maintenance Expense															
Salaries and Wages	$ 12,871	F	Storage	$ -	$ -	$ -	$ -	$ -	$ 12,871	$ -	$ -	$ -	$ -	$ 12,871	$ -
Miscellaneous	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ 12,871			$ -	$ -	$ -	$ -	$ -	$ 12,871	$ -	$ -	$ -	$ -	$ 12,871	$ -
Total Storage Expense	**$ 12,871**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 12,871**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 12,871**	**$ -**
Meter Expense															
Operating Expense															
Salaries and Wages	$ 202,063	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 202,063	$ -	$ -	$ -	$ 202,063	$ -
Miscellaneous	$ 2,736	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,736	$ -	$ -	$ -	$ 2,736	$ -
	$ 204,799			$ -	$ -	$ -	$ -	$ -	$ -	$ 204,799	$ -	$ -	$ -	$ 204,799	$ -
Maintenance Expense															
Salaries and Wages	$ 27,308	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,308	$ -	$ -	$ -	$ 27,308	$ -
Miscellaneous	$ 146	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 146	$ -	$ -	$ -	$ 146	$ -
	$ 27,454			$ -	$ -	$ -	$ -	$ -	$ -	$ 27,454	$ -	$ -	$ -	$ 27,454	$ -

MECG Other MO 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
Total Meter Expense	**$ 232,253**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 232,253**	**$ -**	**$ -**	**$ -**	**$ 232,253**	**$ -**
Service Expense															
Operating Expense															
Salaries and Wages	$ -	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous	$ -	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	$ -			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Maintenance Expense															
Salaries and Wages	$ 59,890	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 59,890	$ -	$ -	$ 59,890	$ -
Miscellaneous	$ (535)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (535)	$ -	$ -	$ (535)	$ -
	$ 59,355			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 59,355	$ -	$ -	$ 59,355	$ -
Total Service Expense	**$ 59,355**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 59,355**	**$ -**	**$ -**	**$ 59,355**	**$ -**
Hydrant Expense															
Maintenance Expense															
Salaries and Wages	$ 104,158	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 104,158	$ 104,158	$ -
Miscellaneous	$ 191	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 191	$ 191	$ -
	$ 104,350			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 104,350	$ 104,350	$ -
Hydrant Expense	**$ 104,350**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 104,350**	**$ 104,350**	**$ -**
Customer Accounts															
Fuel and Power	$ 898	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 898	$ -	$ 898	$ -
Salaries and Wages	$ 234,337	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 234,337	$ -	$ 234,337	$ -
Contract Services - Other	$ 47,854	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 47,854	$ -	$ 47,854	$ -
Building Maintenance and Services	$ 13,954	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,954	$ -	$ 13,954	$ -
Telelcommunications	$ 1,580	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,580	$ -	$ 1,580	$ -
Office supplies and services	$ 1,820	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,820	$ -	$ 1,820	$ -
Materials & Supplies	$ 44,301	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 44,301	$ -	$ 44,301	$ -
Transportation	$ 73	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 73	$ -	$ 73	$ -
Uncollectible Accounts	$ 1,800,985	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,800,985	$ -	$ 1,800,985	$ -
Customer accounting, other	$ 565,618	I	Customers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 565,618	$ -	$ 565,618	$ -
	$ 2,711,420			$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,711,420	$ -	$ 2,711,420	$ -
Total Customer Accounting Expense	**$ 2,711,420**			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 2,711,420**	**$ -**	**$ 2,711,420**	**$ -**
Administrative & General Expense															
Operating Expense															
Fuel and Power	$ 11,134	3	Fixed O&M	$ 550	$ 826	$ 1,837	$ 626	$ 2,458	$ 108	$ 1,340	$ 500	$ 2,010	$ 879	$ 11,134	$ -
Salaries and Wages	$ 4,167,130	4	Labor	$ 48,066	$ 489,300	$ 1,070,318	$ 284,900	$ 1,119,722	$ 25,235	$ 654,539	$ 116,720	$ 153,874	$ 204,457	$ 4,167,130	$ -
Employee Benefits	$ 2,761,747	4	Labor	$ 31,856	$ 324,281	$ 709,348	$ 188,816	$ 742,091	$ 16,724	$ 433,793	$ 77,355	$ 101,979	$ 135,503	$ 2,761,747	$ -
Support Services Costs - Employee	$ 6,493,498	4	Labor	$ 74,900	$ 762,460	$ 1,667,840	$ 443,950	$ 1,744,825	$ 39,322	$ 1,019,946	$ 181,880	$ 239,776	$ 318,598	$ 6,493,498	$ -
Support Services Costs - Admin	$ 6,525,751	3	Fixed O&M	$ 322,518	$ 484,098	$ 1,076,527	$ 366,609	$ 1,440,858	$ 63,549	$ 785,259	$ 293,055	$ 1,178,071	$ 515,207	$ 6,525,751	$ -
Contract Services - Eng	$ 3,440	3	Fixed O&M	$ 170	$ 255	$ 568	$ 193	$ 760	$ 34	$ 414	$ 154	$ 621	$ 272	$ 3,440	$ -
Contract Services - Other	$ 573,451	3	Fixed O&M	$ 28,341	$ 42,540	$ 94,600	$ 32,216	$ 126,616	$ 5,584	$ 69,005	$ 25,752	$ 103,523	$ 45,274	$ 573,451	$ -
Building Maintenance and Services	$ 237,961	3	Fixed O&M	$ 11,761	$ 17,653	$ 39,255	$ 13,368	$ 52,541	$ 2,317	$ 28,634	$ 10,686	$ 42,958	$ 18,787	$ 237,961	$ -
Miscellaneous	$ 686,568	3	Fixed O&M	$ 33,932	$ 50,931	$ 113,260	$ 38,571	$ 151,591	$ 6,686	$ 82,616	$ 30,832	$ 123,944	$ 54,204	$ 686,568	$ -
Telelcommunications	$ 515,282	3	Fixed O&M	$ 25,466	$ 38,225	$ 85,004	$ 28,948	$ 113,772	$ 5,018	$ 62,005	$ 23,140	$ 93,022	$ 40,681	$ 515,282	$ -
Postage	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Office supplies and services	$ 274,454	3	Fixed O&M	$ 13,564	$ 20,360	$ 45,276	$ 15,419	$ 60,598	$ 2,673	$ 33,026	$ 12,325	$ 49,546	$ 21,668	$ 274,454	$ -
Materials & Supplies	$ 70,607	3	Fixed O&M	$ 3,490	$ 5,238	$ 11,648	$ 3,967	$ 15,590	$ 688	$ 8,496	$ 3,171	$ 12,746	$ 5,574	$ 70,607	$ -
Communications	$ 25,072	3	Fixed O&M	$ 1,239	$ 1,860	$ 4,136	$ 1,409	$ 5,536	$ 244	$ 3,017	$ 1,126	$ 4,526	$ 1,979	$ 25,072	$ -
Rents-Property	$ 78,325	3	Fixed O&M	$ 3,871	$ 5,810	$ 12,921	$ 4,400	$ 17,294	$ 763	$ 9,425	$ 3,517	$ 14,140	$ 6,184	$ 78,325	$ -
Rents-Equipment	$ 7,898	3	Fixed O&M	$ 390	$ 586	$ 1,303	$ 444	$ 1,744	$ 77	$ 950	$ 355	$ 1,426	$ 624	$ 7,898	$ -
Transportation	$ 324,725	3	Fixed O&M	$ 16,049	$ 24,089	$ 53,569	$ 18,243	$ 71,698	$ 3,162	$ 39,075	$ 14,583	$ 58,622	$ 25,637	$ 324,725	$ -
Regulatory Expense	$ 187,619	3	Fixed O&M	$ 9,273	$ 13,918	$ 30,951	$ 10,540	$ 41,425	$ 1,827	$ 22,577	$ 8,425	$ 33,870	$ 14,813	$ 187,619	$ -
Insurance	$ 2,696,028	3	Fixed O&M	$ 133,244	$ 199,999	$ 444,753	$ 151,460	$ 595,271	$ 26,255	$ 324,419	$ 121,072	$ 486,704	$ 212,851	$ 2,696,028	$ -
	$ 25,640,691			$ 758,679	$ 2,482,429	$ 5,463,114	$ 1,604,078	$ 6,304,389	$ 200,266	$ 3,578,536	$ 924,648	$ 2,701,358	$ 1,623,193	$ 25,640,691	$ -
Maintenance Expense															
Salaries and Wages	$ 33,863	4	Labor	$ 391	$ 3,976	$ 8,698	$ 2,315	$ 9,099	$ 205	$ 5,319	$ 948	$ 1,250	$ 1,661	$ 33,863	$ -
Transportation	$ 3,722	3	Fixed O&M	$ 184	$ 276	$ 614	$ 209	$ 822	$ 36	$ 448	$ 167	$ 672	$ 294	$ 3,722	$ -
Contract Services - Eng	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Contract Services - Other	$ 20,944	3	Fixed O&M	$ 1,035	$ 1,554	$ 3,455	$ 1,177	$ 4,624	$ 204	$ 2,520	$ 941	$ 3,781	$ 1,654	$ 20,944	$ -
Miscellaneous	$ 22,230	3	Fixed O&M	$ 1,099	$ 1,649	$ 3,667	$ 1,249	$ 4,908	$ 216	$ 2,675	$ 998	$ 4,013	$ 1,755	$ 22,230	$ -
Materials & Supplies	$ 26,127	3	Fixed O&M	$ 1,291	$ 1,938	$ 4,310	$ 1,468	$ 5,769	$ 254	$ 3,144	$ 1,173	$ 4,717	$ 2,063	$ 26,127	$ -
	$ 106,887			$ 4,000	$ 9,393	$ 20,744	$ 6,418	$ 25,222	$ 916	$ 14,106	$ 4,228	$ 14,433	$ 7,427	$ 106,887	$ -
Total A&G Expense	**$ 25,747,578**			**$ 762,678**	**$ 2,491,822**	**$ 5,483,858**	**$ 1,610,496**	**$ 6,329,612**	**$ 201,183**	**$ 3,592,642**	**$ 928,876**	**$ 2,715,791**	**$ 1,630,620**	**$ 25,747,578**	**$ -**
Total Operations & Maintenace Exp. (Other Water)	**$ 52,868,585**			**$ 5,528,831**	**$ 5,466,875**	**$ 14,178,341**	**$ 2,454,275**	**$ 9,645,856**	**$ 347,447**	**$ 5,399,975**	**$ 1,603,364**	**$ 5,427,211**	**$ 2,816,410**	**$ 52,868,585**	**$ -**

MECG Other MO 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
Taxes Other Than Income Tax															
Property Taxes	$ 11,171,788	5	Net Plant (less gen. ar	$ 651,359	$ 522,813	$ 1,645,863	$ 1,056,674	$ 4,152,966	$ 298,676	$ 1,104,552	$ 1,114,099	$ 170,468	$ 454,318	$ 11,171,788	$ -
Payroll Taxes	$ 817,364	4	Labor	$ 9,428	$ 95,974	$ 209,938	$ 55,882	$ 219,629	$ 4,950	$ 128,385	$ 22,894	$ 30,182	$ 40,103	$ 817,364	$ -
Utility Reg Assessment	$ 829,029	6	Rate Base	$ 56,094	$ 45,205	$ 142,143	$ 70,723	$ 277,957	$ 25,732	$ 94,494	$ 65,211	$ 14,623	$ 36,848	$ 829,029	$ -
Other Taxes	$ (55,061)	6	Rate Base	$ (3,726)	$ (3,002)	$ (9,441)	$ (4,697)	$ (18,461)	$ (1,709)	$ (6,276)	$ (4,331)	$ (971)	$ (2,447)	$ (55,061)	$ (0)
	$ 12,763,121			$ 713,155	$ 660,989	$ 1,988,504	$ 1,178,581	$ 4,632,091	$ 327,649	$ 1,321,155	$ 1,197,873	$ 214,301	$ 528,822	$ 12,763,121	$ (0)
Total Taxes Other Than Income Taxes (Other Water)	**$ 12,763,121**			**$ 713,155**	**$ 660,989**	**$ 1,988,504**	**$ 1,178,581**	**$ 4,632,091**	**$ 327,649**	**$ 1,321,155**	**$ 1,197,873**	**$ 214,301**	**$ 528,822**	**$ 12,763,121**	**$ (0)**
Plant Depreciation															
Intangible Plant															
Organization	$ -	5	Net Plant (less gen. ar	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Franchises	$ -	5	Net Plant (less gen. ar	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other P/E-Intangible	$ -	5	Net Plant (less gen. ar	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Source of Supply															
Land & Land Rights	$ -	A	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Structures & Improvements	$ 460,440	A	Source of Supply	$ 460,440	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 460,440	$ -
Collection & Impound Reservoirs	$ 27,224	A	Source of Supply	$ 27,224	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 27,224	$ -
Lake, River, & Other Intakes	$ 354,441	A	Source of Supply	$ 354,441	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 354,441	$ -
Wells & Springs	$ 334,577	A	Source of Supply	$ 334,577	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 334,577	$ -
Infiltration Galleries & Tunnels	$ 45	A	Source of Supply	$ 45	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 45	$ -
Supply Mains	$ 240,434	A	Source of Supply	$ 240,434	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 240,434	$ -
Other P/E-Supply	$ 20,828	A	Source of Supply	$ 20,828	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 20,828	$ -
Water Pumping															
Pumping Land & Land Rights	$ -	B	Pumping	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Pumping Structures & Improvements	$ 645,983	B	Pumping	$ -	$ 645,983	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 645,983	$ -
Boiler Plant Equipment	$ -	B	Pumping	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Power Generation Equipment	$ 158,392	B	Pumping	$ -	$ 158,392	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 158,392	$ -
Steam Pumping Equipment	$ 51,077	B	Pumping	$ -	$ 51,077	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 51,077	$ -
Electric Pumping Equipment	$ 541,695	B	Pumping	$ -	$ 541,695	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 541,695	$ -
Diesel Pumping Equipment	$ 9,059	B	Pumping	$ -	$ 9,059	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,059	$ -
Pump Equip Hydraulic	$ 6,590	B	Pumping	$ -	$ 6,590	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,590	$ -
Other Pumping Equipment	$ 91,734	B	Pumping	$ -	$ 91,734	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 91,734	$ -
Water Treatment															
Water Treatment Land & land Rights	$ -	C	Water Treatment	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Water Treatment Structures & Improvements	$ 1,820,166	C	Water Treatment	$ -	$ -	$ 1,820,166	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,820,166	$ -
Water Treatment Equipment	$ 2,463,879	C	Water Treatment	$ -	$ -	$ 2,463,879	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,463,879	$ -
Water Treatment - Other	$ 49,058	C	Water Treatment	$ -	$ -	$ 49,058	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 49,058	$ -
T&D															
Transmission & Distribution Land	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transmission & Distribution Structures & Impr	$ 146,347	K	Mains	$ -	$ -	$ -	$ 29,684	$ 116,663	$ -	$ -	$ -	$ -	$ -	$ 146,347	$ -
TD Mains 4in & Less	$ 1,559,540	E	Distribution	$ -	$ -	$ -	$ -	$ 1,559,540	$ -	$ -	$ -	$ -	$ -	$ 1,559,540	$ -
TD Mains 6in to 8in	$ 4,470,663	E	Distribution	$ -	$ -	$ -	$ -	$ 4,470,663	$ -	$ -	$ -	$ -	$ -	$ 4,470,663	$ -
TD Mains 10in to 16in	$ 1,276,531	D	Transmission	$ -	$ -	$ -	$ 1,276,531	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,276,531	$ -
TD Mains 18in & Grtr	$ 257,783	D	Transmission	$ -	$ -	$ -	$ 257,783	$ -	$ -	$ -	$ -	$ -	$ -	$ 257,783	$ -
Other Transmission & Distribution Plant	$ 2,465	K	Mains	$ -	$ -	$ -	$ 500	$ 1,965	$ -	$ -	$ -	$ -	$ -	$ 2,465	$ -
Storage															
Distribution Reservoirs & Standpipes	$ 695,612	F	Storage	$ -	$ -	$ -	$ -	$ -	$ 695,612	$ -	$ -	$ -	$ -	$ 695,612	$ -
Distribution Reservoirs & Standpipes - Tank Coating	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Meters															
Meters	$ 1,761,112	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,761,112	$ -	$ -	$ -	$ 1,761,112	$ -
Meter Installation	$ 628,748	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 628,748	$ -	$ -	$ -	$ 628,748	$ -
Meter Vaults	$ -	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Services															
Services	$ 3,596,402	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 3,596,402	$ -	$ -	$ 3,596,402	$ -
Hydrants															
Hydrants	$ 778,074	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 778,074	$ 778,074	$ -
Fire Mains	$ 10,774	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,774	$ 10,774	$ -

MECG Other MO 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
General Plant															
General Land & Land Rights	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Stores Shops Equipment Structures	$ 686,469	3	Fixed O&M	$ 33,927	$ 50,924	$ 113,244	$ 38,565	$ 151,569	$ 6,685	$ 82,604	$ 30,828	$ 123,926	$ 54,197	$ 686,469	$ -
Office Structures	$ 206,918	3	Fixed O&M	$ 10,226	$ 15,350	$ 34,134	$ 11,624	$ 45,687	$ 2,015	$ 24,899	$ 9,292	$ 37,354	$ 16,336	$ 206,918	$ -
General Structures - HVAC	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous Structures	$ 98,900	3	Fixed O&M	$ 4,888	$ 7,337	$ 16,315	$ 5,556	$ 21,837	$ 963	$ 11,901	$ 4,441	$ 17,854	$ 7,808	$ 98,900	$ -
Structures & Improvements - Leasehold	$ 1,344	3	Fixed O&M	$ 66	$ 100	$ 222	$ 75	$ 297	$ 13	$ 162	$ 60	$ 243	$ 106	$ 1,344	$ -
Office Furniture and Equipment	$ 39,108	3	Fixed O&M	$ 1,933	$ 2,901	$ 6,452	$ 2,197	$ 8,635	$ 381	$ 4,706	$ 1,756	$ 7,060	$ 3,088	$ 39,108	$ -
Computers & Peripheral Equipment	$ 868,744	3	Fixed O&M	$ 42,935	$ 64,446	$ 143,313	$ 48,805	$ 191,815	$ 8,460	$ 104,538	$ 39,013	$ 156,831	$ 68,587	$ 868,744	$ -
Computer Hardware & Software	$ 163,513	3	Fixed O&M	$ 8,081	$ 12,130	$ 26,974	$ 9,186	$ 36,103	$ 1,592	$ 19,676	$ 7,343	$ 29,518	$ 12,909	$ 163,513	$ -
Computer Software	$ 1,310,121	3	Fixed O&M	$ 64,749	$ 97,188	$ 216,125	$ 73,601	$ 289,269	$ 12,758	$ 157,650	$ 58,834	$ 236,511	$ 103,434	$ 1,310,121	$ -
Personal Computer Software	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Office Equipment	$ 33,443	3	Fixed O&M	$ 1,653	$ 2,481	$ 5,517	$ 1,879	$ 7,384	$ 326	$ 4,024	$ 1,502	$ 6,037	$ 2,640	$ 33,443	$ -
BTS Initial Investment	$ 630,970	3	Fixed O&M	$ 31,184	$ 46,807	$ 104,089	$ 35,447	$ 139,315	$ 6,145	$ 75,926	$ 28,335	$ 113,907	$ 49,815	$ 630,970	$ -
Transportation Equipment - Light Trucks	$ 687,840	3	Fixed O&M	$ 33,995	$ 51,026	$ 113,470	$ 38,642	$ 151,872	$ 6,698	$ 82,769	$ 30,889	$ 124,173	$ 54,305	$ 687,840	$ -
Transportation Equipment - Heavy Trucks	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transportation Equipment - Cars	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Transportation Equipment - Other	$ 345,139	3	Fixed O&M	$ 17,058	$ 25,603	$ 56,936	$ 19,390	$ 76,205	$ 3,361	$ 41,531	$ 15,499	$ 62,307	$ 27,249	$ 345,139	$ -
Stores Equipment	$ 7,438	3	Fixed O&M	$ 368	$ 552	$ 1,227	$ 418	$ 1,642	$ 72	$ 895	$ 334	$ 1,343	$ 587	$ 7,438	$ -
Tools, Shop, & Garage Equipment	$ 214,138	3	Fixed O&M	$ 10,583	$ 15,885	$ 35,326	$ 12,030	$ 47,281	$ 2,085	$ 25,768	$ 9,616	$ 38,658	$ 16,906	$ 214,138	$ -
Laboratory Equipment	$ 40,024	C	Water Treatment	$ -	$ -	$ 40,024	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 40,024	$ -
Power Operated Equipment	$ 62,173	3	Fixed O&M	$ 3,073	$ 4,612	$ 10,256	$ 3,493	$ 13,727	$ 605	$ 7,481	$ 2,792	$ 11,224	$ 4,909	$ 62,173	$ -
Communication Equipment	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Communication Equipment (non telephone)	$ 515,518	3	Fixed O&M	$ 25,478	$ 38,242	$ 85,043	$ 28,961	$ 113,824	$ 5,020	$ 62,033	$ 23,151	$ 93,065	$ 40,700	$ 515,518	$ -
Telephone Equipment	$ 4,268	3	Fixed O&M	$ 211	$ 317	$ 704	$ 240	$ 942	$ 42	$ 514	$ 192	$ 770	$ 337	$ 4,268	$ -
Miscellaneous Equipment	$ 163,595	3	Fixed O&M	$ 8,085	$ 12,136	$ 26,988	$ 9,191	$ 36,121	$ 1,593	$ 19,686	$ 7,347	$ 29,533	$ 12,916	$ 163,595	$ -
Other Tangible Property	$ 13,772	3	Fixed O&M	$ 681	$ 1,022	$ 2,272	$ 774	$ 3,041	$ 134	$ 1,657	$ 618	$ 2,486	$ 1,087	$ 13,772	$ -
Transportation Equipment Capitalization	$ (475,262)	3	Fixed O&M	$ (23,489)	$ (35,256)	$ (78,402)	$ (26,700)	$ (104,936)	$ (4,628)	$ (57,189)	$ (21,343)	$ (85,797)	$ (37,522)	$ (475,262)	$ -
Plant Depreciation (Other Water)	$ 28,077,844			$ 1,713,674	$ 1,918,331	$ 5,293,331	$ 1,877,872	$ 7,380,462	$ 749,934	$ 3,061,092	$ 3,846,902	$ 1,007,003	$ 1,229,242	$ 28,077,844	$ -
Depreciation - Acquisition	$ -	6	Rate Base	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Non Taxable - Mains	$ (565,128)	K	Mains	$ -	$ -	$ -	$ (114,625)	$ (450,503)	$ -	$ -	$ -	$ -	$ -	$ (565,128)	$ -
CIAC-Non Taxable - Ext Dep	$ (365,380)	K	Mains	$ -	$ -	$ -	$ (74,110)	$ (291,270)	$ -	$ -	$ -	$ -	$ -	$ (365,380)	$ -
CIAC-Non Taxable - Services	$ (7,758)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (7,758)	$ -	$ -	$ (7,758)	$ -
CIAC-Non Taxable - Meters	$ (13,983)	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ (13,983)	$ -	$ -	$ -	$ (13,983)	$ -
CIAC-Non Taxable - Hydrants	$ (51,324)	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (51,324)	$ (51,324)	$ -
CIAC-Non Taxable - Other	$ (90,265)	K	Mains	$ -	$ -	$ -	$ (18,308)	$ (71,957)	$ -	$ -	$ -	$ -	$ -	$ (90,265)	$ -
CIAC-Non Taxable - WIP	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Taxable - Mains	$ (427,796)	K	Mains	$ -	$ -	$ -	$ (86,770)	$ (341,026)	$ -	$ -	$ -	$ -	$ -	$ (427,796)	$ -
CIAC-Taxable - Extension Deposits	$ (109,641)	K	Mains	$ -	$ -	$ -	$ (22,239)	$ (87,402)	$ -	$ -	$ -	$ -	$ -	$ (109,641)	$ -
CIAC-Taxable - Services	$ (950,310)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (950,310)	$ -	$ -	$ (950,310)	$ -
CIAC-Taxable - Meters	$ (8,056)	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ (8,056)	$ -	$ -	$ -	$ (8,056)	$ -
CIAC-Taxable - Hydrants	$ (706)	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (706)	$ (706)	$ -
CIAC-Taxable - Other	$ (4,269)	K	Mains	$ -	$ -	$ -	$ (866)	$ (3,403)	$ -	$ -	$ -	$ -	$ -	$ (4,269)	$ -
CIAC-Taxable - WIP	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Taxable - Services SIT	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Amortization of CIAC (Other Water)	$ (2,594,616)			$ -	$ -	$ -	$ (316,918)	$ (1,245,561)	$ -	$ (22,039)	$ (958,068)	$ -	$ (52,030)	$ (2,594,616)	$ -
Total Depreciation Expense (Other Water)	**$ 25,483,228**			**$ 1,713,674**	**$ 1,918,331**	**$ 5,293,331**	**$ 1,560,954**	**$ 6,134,901**	**$ 749,934**	**$ 3,039,053**	**$ 2,888,834**	**$ 1,007,003**	**$ 1,177,212**	**$ 25,483,228**	**$ -**
Total Depreciation Expense	**$ 25,483,228**														
Amortization Expense															
Lead Service Replacement	$ 1,406,242	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,406,242	$ -	$ -	$ 1,406,242	$ -
Troubled Systems	$ 55,018	6	Rate Base	$ 3,723	$ 3,000	$ 9,433	$ 4,693	$ 18,446	$ 1,708	$ 6,271	$ 4,328	$ 970	$ 2,445	$ 55,018	$ 0
Tank Painting Tracker	$ 120,994	6	Rate Base	$ 8,187	$ 6,597	$ 20,745	$ 10,322	$ 40,567	$ 3,756	$ 13,791	$ 9,517	$ 2,134	$ 5,378	$ 120,994	$ 0
Property Tax Tracker	$ 993,750	6	Rate Base	$ 67,239	$ 54,186	$ 170,386	$ 84,775	$ 333,184	$ 30,845	$ 113,269	$ 78,168	$ 17,528	$ 44,169	$ 993,750	$ 0
Enterprise Solutions	$ 2,652	6	Rate Base	$ 179	$ 145	$ 455	$ 226	$ 889	$ 82	$ 302	$ 209	$ 47	$ 118	$ 2,652	$ -
Low Income Costs	$ 997	6	Rate Base	$ 67	$ 54	$ 171	$ 85	$ 334	$ 31	$ 114	$ 78	$ 18	$ 44	$ 997	$ 0
Hollister Pipeline	$ 6,466	6	Rate Base	$ 438	$ 353	$ 1,109	$ 552	$ 2,168	$ 201	$ 737	$ 509	$ 114	$ 287	$ 6,466	$ 0
Total Amortization Expense (Other Water)	$ 2,586,118			$ 79,833	$ 64,335	$ 202,299	$ 100,653	$ 395,589	$ 36,622	$ 134,484	$ 1,499,050	$ 20,811	$ 52,442	$ 2,586,118	$ 0
Total Amortization Expense	**$ 2,586,118**			**$ 79,833**	**$ 64,335**	**$ 202,299**	**$ 100,653**	**$ 395,589**	**$ 36,622**	**$ 134,484**	**$ 1,499,050**	**$ 20,811**	**$ 52,442**	**$ 2,586,118**	**$ 0**

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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
Income Taxes															
Federal Income Tax	$ 669,601	6	Rate Base	$ 45,306	$ 36,511	$ 114,808	$ 57,122	$ 224,504	$ 20,784	$ 76,322	$ 52,671	$ 11,811	$ 29,762	$ 669,601	$ 0
State Income Tax	$ 118,516	6	Rate Base	$ 8,019	$ 6,462	$ 20,320	$ 10,110	$ 39,736	$ 3,679	$ 13,509	$ 9,322	$ 2,090	$ 5,268	$ 118,516	
Deferred Income Tax	$ 11,197,630	6	Rate Base	$ 757,653	$ 610,575	$ 1,919,916	$ 955,248	$ 3,754,339	$ 347,563	$ 1,276,323	$ 880,802	$ 197,509	$ 497,702	$ 11,197,630	
ITC Restored	$ (30,262)	6	Rate Base	$ (2,048)	$ (1,650)	$ (5,189)	$ (2,582)	$ (10,146)	$ (939)	$ (3,449)	$ (2,380)	$ (534)	$ (1,345)	$ (30,262)	$ (0)
Total Income Taxes (Other Water)	$ 11,955,485			$ 808,931	$ 651,898	$ 2,049,856	$ 1,019,899	$ 4,008,432	$ 371,086	$ 1,362,704	$ 940,415	$ 210,877	$ 531,387	$ 11,955,485	$ (0)
Total Income Tax Expense	**$ 11,955,485**			**$ 808,931**	**$ 651,898**	**$ 2,049,856**	**$ 1,019,899**	**$ 4,008,432**	**$ 371,086**	**$ 1,362,704**	**$ 940,415**	**$ 210,877**	**$ 531,387**	**$ 11,955,485**	
Required Net Operating Income (Other Water)	$ 69,259,387	6	Rate Base	$ 4,686,223	$ 3,776,516	$ 11,875,034	$ 5,908,381	$ 23,221,271	$ 2,149,741	$ 7,894,291	$ 5,447,922	$ 1,221,630	$ 3,078,378	$ 69,259,387	$ -
Required Net Operating Income	$ 69,259,387														
Total Revenue Requirement (Other Water)	**$ 174,915,924**			**$ 13,530,647**	**$ 12,538,945**	**$ 35,587,365**	**$ 12,222,744**	**$ 48,038,140**	**$ 3,982,478**	**$ 19,151,662**	**$ 13,577,458**	**$ 8,101,834**	**$ 8,184,651**	**$ 174,915,924**	**$ -**
Other Operating Revenue (Other Water)	$ (1,546,294)	6	Rate Base	$ (104,625)	$ (84,315)	$ (265,123)	$ (131,911)	$ (518,441)	$ (47,995)	$ (176,249)	$ (121,631)	$ (27,274)	$ (68,728)	$ (1,546,294)	$ -
Total Retail Revenue Requirement (Other Water)	**$ 173,369,630**			**$ 13,426,022**	**$ 12,454,630**	**$ 35,322,241**	**$ 12,090,833**	**$ 47,519,699**	**$ 3,934,483**	**$ 18,975,414**	**$ 13,455,827**	**$ 8,074,560**	**$ 8,115,923**	**$ 173,369,630**	**$ -**
	$ 174,915,924														
	check $ -														

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Missouri-American Water Company
Class Cost of Service Study - Account Detail
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	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	$ 85,897	S	Net Plant (less gen. ar	$ 5,008	$ 4,020	$ 12,655	$ 8,125	$ 31,931	$ 2,296	$ 8,493	$ 8,566	$ 1,311	$ 3,493	$ 85,897	$ -
Franchises	$ 43,698	S	Net Plant (less gen. ar	$ 2,548	$ 2,045	$ 6,438	$ 4,133	$ 16,244	$ 1,168	$ 4,320	$ 4,358	$ 667	$ 1,777	$ 43,698	$ -
Other P/E-Intangible	$ 604,504	S	Net Plant (less gen. ar	$ 35,245	$ 28,289	$ 89,058	$ 57,177	$ 224,717	$ 16,161	$ 59,767	$ 60,284	$ 9,224	$ 24,583	$ 604,504	$ -
Source of Supply															
Land & Land Rights	$ 2,889,403	A	Source of Supply	$ 2,889,403	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,889,403	$ -
Structures & Improvements	$ 21,696,334	A	Source of Supply	$ 21,696,334	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,696,334	$ -
Collection & Impound Reservoirs	$ 8,603,950	A	Source of Supply	$ 8,603,950	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,603,950	$ -
Lake, River, & Other Intakes	$ 7,066,686	A	Source of Supply	$ 7,066,686	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,066,686	$ -
Wells & Springs	$ 9,732,194	A	Source of Supply	$ 9,732,194	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,732,194	$ -
Infiltration Galleries & Tunnels	$ 1,120	A	Source of Supply	$ 1,120	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,120	$ -
Supply Mains	$ 10,321,276	A	Source of Supply	$ 10,321,276	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,321,276	$ -
Other P/E-Supply	$ 311,464	A	Source of Supply	$ 311,464	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 311,464	$ -
Water Pumping															
Pumping Land & Land Rights	$ 187,000	B	Pumping	$ -	$ 187,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 187,000	$ -
Pumping Structures & Improvements	$ 9,597,675	B	Pumping	$ -	$ 9,597,675	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 9,597,675	$ -
Boiler Plant Equipment	$ -	B	Pumping	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Power Generation Equipment	$ 4,412,845	B	Pumping	$ -	$ 4,412,845	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,412,845	$ -
Steam Pumping Equipment	$ 2,982,638	B	Pumping	$ -	$ 2,982,638	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,982,638	$ -
Electric Pumping Equipment	$ 22,299,035	B	Pumping	$ -	$ 22,299,035	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 22,299,035	$ -
Diesel Pumping Equipment	$ 315,082	B	Pumping	$ -	$ 315,082	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 315,082	$ -
Pump Equip Hydraulic	$ 295,296	B	Pumping	$ -	$ 295,296	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 295,296	$ -
Other Pumping Equipment	$ 5,301,607	B	Pumping	$ -	$ 5,301,607	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,301,607	$ -
Water Treatment														$ -	$ -
Water Treatment Land & land Rights	$ 1,457,375	C	Water Treatment	$ -	$ -	$ 1,457,375	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,457,375	$ -
Water Treatment Structures & Improvements	$ 54,667,487	C	Water Treatment	$ -	$ -	$ 54,667,487	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 54,667,487	$ -
Water Treatment Equipment	$ 92,137,672	C	Water Treatment	$ -	$ -	$ 92,137,672	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 92,137,672	$ -
Water Treatment - Other	$ 591,735	C	Water Treatment	$ -	$ -	$ 591,735	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 591,735	$ -
														$ -	$ -
T&D														$ -	$ -
Transmission & Distribution Land	$ 1,477,369	K	Mains	$ -	$ -	$ -	$ 299,655	$ 1,177,714	$ -	$ -	$ -	$ -	$ -	$ 1,477,369	$ -
Transmission & Distribution Structures & Impr	$ 7,442,322	K	Mains	$ -	$ -	$ -	$ 1,509,530	$ 5,932,793	$ -	$ -	$ -	$ -	$ -	$ 7,442,322	$ -
TD Mains 4in & Less	$ 100,420,263	E	Distribution	$ -	$ -	$ -	$ -	$ 100,420,263	$ -	$ -	$ -	$ -	$ -	$ 100,420,263	$ -
TD Mains 6in to 8in	$ 287,870,227	E	Distribution	$ -	$ -	$ -	$ -	$ 287,870,227	$ -	$ -	$ -	$ -	$ -	$ 287,870,227	$ -
TD Mains 10in to 16in	$ 82,197,072	D	Transmission	$ -	$ -	$ -	$ 82,197,072	$ -	$ -	$ -	$ -	$ -	$ -	$ 82,197,072	$ -
TD Mains 18in & Grtr	$ 16,598,913	D	Transmission	$ -	$ -	$ -	$ 16,598,913	$ -	$ -	$ -	$ -	$ -	$ -	$ 16,598,913	$ -
Other Transmission & Distribution Plant	$ 58,622	K	Mains	$ -	$ -	$ -	$ 11,890	$ 46,732	$ -	$ -	$ -	$ -	$ -	$ 58,622	$ -
														$ -	$ -
Storage														$ -	$ -
Distribution Reservoirs & Standpipes	$ 28,954,962	F	Storage	$ -	$ -	$ -	$ -	$ -	$ 28,954,962	$ -	$ -	$ -	$ -	$ 28,954,962	$ -
Distribution Reservoirs & Standpipes - Tank Coating	$ 66,469	F	Storage	$ -	$ -	$ -	$ -	$ -	$ 66,469	$ -	$ -	$ -	$ -	$ 66,469	$ -
Meters														$ -	$ -
Meters	$ 80,526,166	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 80,526,166	$ -	$ -	$ -	$ 80,526,166	$ -
Meter Installation	$ 18,817,575	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ 18,817,575	$ -	$ -	$ -	$ 18,817,575	$ -
Meter Vaults	$ -	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
														$ -	$ -
Services														$ -	$ -
Services	$ 107,441,202	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 107,441,202	$ -	$ -	$ 107,441,202	$ -
Hydrants														$ -	$ -
Hydrants	$ 37,625,935	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 37,625,935	$ 37,625,935	$ -
Fire Mains	$ 447,087	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 447,087	$ 447,087	$ -
														$ -	$ -

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Missouri-American Water Company
Class Cost of Service Study - Account Detail
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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	$ 654,992	3	Fixed O&M	$ 32,371	$ 48,589	$ 108,051	$ 36,797	$ 144,619	$ 6,378	$ 78,817	$ 29,414	$ 118,243	$ 51,712	$ 654,992	$ -
Stores Shops Equipment Structures	$ 19,357,116	3	Fixed O&M	$ 956,674	$ 1,435,963	$ 3,193,267	$ 1,087,461	$ 4,273,967	$ 188,505	$ 2,329,286	$ 869,278	$ 3,494,471	$ 1,528,243	$ 19,357,116	$ -
Office Structures	$ 9,142,789	3	Fixed O&M	$ 451,858	$ 678,237	$ 1,508,250	$ 513,632	$ 2,018,688	$ 89,035	$ 1,100,173	$ 410,579	$ 1,650,515	$ 721,822	$ 9,142,789	$ -
General Structures - HVAC	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Miscellaneous Structures	$ 1,173,732	3	Fixed O&M	$ 58,009	$ 87,071	$ 193,626	$ 65,939	$ 259,155	$ 11,430	$ 141,238	$ 52,709	$ 211,890	$ 92,666	$ 1,173,732	$ -
Structures & Improvements - Leasehold	$ 39,243	3	Fixed O&M	$ 1,939	$ 2,911	$ 6,474	$ 2,205	$ 8,665	$ 382	$ 4,722	$ 1,762	$ 7,084	$ 3,098	$ 39,243	$ -
Office Furniture and Equipment	$ 471,374	3	Fixed O&M	$ 23,296	$ 34,968	$ 77,761	$ 26,481	$ 104,077	$ 4,590	$ 56,722	$ 21,168	$ 85,096	$ 37,215	$ 471,374	$ -
Computers & Peripheral Equipment	$ 2,692,579	3	Fixed O&M	$ 133,074	$ 199,743	$ 444,184	$ 151,266	$ 594,510	$ 26,221	$ 324,004	$ 120,917	$ 486,082	$ 212,579	$ 2,692,579	$ -
Computer Hardware & Software	$ (313,400)	3	Fixed O&M	$ (15,489)	$ (23,249)	$ (51,700)	$ (17,606)	$ (69,197)	$ (3,052)	$ (37,712)	$ (14,074)	$ (56,577)	$ (24,743)	$ (313,400)	$ -
Computer Software	$ 19,396,846	3	Fixed O&M	$ 958,638	$ 1,438,910	$ 3,199,821	$ 1,089,693	$ 4,282,740	$ 188,892	$ 2,334,067	$ 871,063	$ 3,501,644	$ 1,531,379	$ 19,396,846	$ -
Personal Computer Software	$ -	3	Fixed O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Other Office Equipment	$ 337,033	3	Fixed O&M	$ 16,657	$ 25,002	$ 55,599	$ 18,934	$ 74,415	$ 3,282	$ 40,556	$ 15,135	$ 60,843	$ 26,609	$ 337,033	$ -
BTS Initial Investment	$ 4,608,076	3	Fixed O&M	$ 227,742	$ 341,839	$ 760,176	$ 258,877	$ 1,017,443	$ 44,875	$ 554,500	$ 206,937	$ 831,880	$ 363,807	$ 4,608,076	$ -
Transportation Equipment - Light Trucks	$ 8,661,826	3	Fixed O&M	$ 428,088	$ 642,557	$ 1,428,907	$ 486,612	$ 1,912,494	$ 84,351	$ 1,042,297	$ 388,980	$ 1,563,689	$ 683,850	$ 8,661,826	$ -
Transportation Equipment - Heavy Trucks	$ 2,881,779	3	Fixed O&M	$ 142,424	$ 213,778	$ 475,396	$ 161,895	$ 636,284	$ 28,064	$ 346,771	$ 129,413	$ 520,237	$ 227,516	$ 2,881,779	$ -
Transportation Equipment - Cars	$ 9,104,500	3	Fixed O&M	$ 449,966	$ 675,396	$ 1,501,934	$ 511,481	$ 2,010,234	$ 88,662	$ 1,095,565	$ 408,860	$ 1,643,603	$ 718,800	$ 9,104,500	$ -
Transportation Equipment - Other	$ 2,861,232	3	Fixed O&M	$ 141,409	$ 212,254	$ 472,006	$ 160,741	$ 631,748	$ 27,863	$ 344,299	$ 128,491	$ 516,528	$ 225,894	$ 2,861,232	$ -
Stores Equipment	$ 61,065	3	Fixed O&M	$ 3,018	$ 4,530	$ 10,074	$ 3,431	$ 13,483	$ 595	$ 7,348	$ 2,742	$ 11,024	$ 4,821	$ 61,065	$ -
Tools, Shop, & Garage Equipment	$ 3,815,869	3	Fixed O&M	$ 188,589	$ 283,071	$ 629,489	$ 214,371	$ 842,527	$ 37,160	$ 459,172	$ 171,361	$ 688,865	$ 301,263	$ 3,815,869	$ -
Laboratory Equipment	$ 532,536	C	Water Treatment	$ -	$ -	$ 532,536	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 532,536	$ -
Power Operated Equipment	$ 530,530	3	Fixed O&M	$ 26,220	$ 39,356	$ 87,519	$ 29,805	$ 117,139	$ 5,166	$ 63,840	$ 23,825	$ 95,775	$ 41,885	$ 530,530	$ -
Communication Equipment	$ 26,899	3	Fixed O&M	$ 1,329	$ 1,995	$ 4,437	$ 1,511	$ 5,939	$ 262	$ 3,237	$ 1,208	$ 4,856	$ 2,124	$ 26,899	$ -
Communication Equipment (non telephone)	$ 6,657,374	3	Fixed O&M	$ 329,023	$ 493,862	$ 1,098,241	$ 374,004	$ 1,469,919	$ 64,831	$ 801,097	$ 298,966	$ 1,201,832	$ 525,599	$ 6,657,374	$ -
Telephone Equipment	$ (25,751)	3	Fixed O&M	$ (1,273)	$ (1,910)	$ (4,248)	$ (1,447)	$ (5,686)	$ (251)	$ (3,099)	$ (1,156)	$ (4,649)	$ (2,033)	$ (25,751)	$ -
Miscellaneous Equipment	$ 1,743,019	3	Fixed O&M	$ 86,144	$ 129,302	$ 287,539	$ 97,921	$ 384,851	$ 16,974	$ 209,741	$ 78,275	$ 314,661	$ 137,611	$ 1,743,019	$ -
Other Tangible Property	$ 789,137	3	Fixed O&M	$ 39,001	$ 58,540	$ 130,181	$ 44,333	$ 174,238	$ 7,685	$ 94,959	$ 35,438	$ 142,460	$ 62,302	$ 789,137	$ -
Net Utility Plant	$ 1,120,746,551			$ 65,343,935	$ 52,448,247	$ 165,111,938	$ 106,004,829	$ 416,622,873	$ 29,962,958	$ 110,807,922	$ 111,765,700	$ 17,101,254	$ 45,576,894	$ 1,120,746,551	$ -
Additions to Rate Base															
Cash Working Capital(Other Water)	$ (777,261)	3	Fixed O&M	$ (38,414)	$ (57,659)	$ (128,222)	$ (43,666)	$ (171,616)	$ (7,569)	$ (93,530)	$ (34,905)	$ (140,316)	$ (61,365)	$ (777,261)	$ -
Materials and Supplies(Other Water)	$ 4,910,095	5	Net Plant (less gen. ar	$ 286,278	$ 229,781	$ 723,371	$ 464,417	$ 1,825,264	$ 131,271	$ 485,460	$ 489,656	$ 74,922	$ 199,677	$ 4,910,095	$ -
Pension Asset(Other Water)	$ 8,684,955	5	Net Plant (less gen. ar	$ 506,367	$ 406,435	$ 1,279,495	$ 821,459	$ 3,228,518	$ 232,191	$ 858,679	$ 866,101	$ 132,522	$ 353,187	$ 8,684,955	$ -
Regulatory Deferrals(Other Water)	$ 4,211,509	5	Net Plant (less gen. ar	$ 245,548	$ 197,089	$ 620,453	$ 398,342	$ 1,565,573	$ 112,594	$ 416,391	$ 419,990	$ 64,263	$ 171,268	$ 4,211,509	$ -
Tank Painting Tracker(Other Water)	$ -	F	Storage	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Additions	$ 17,029,298			$ 999,778	$ 775,645	$ 2,495,097	$ 1,640,552	$ 6,447,740	$ 468,486	$ 1,667,000	$ 1,740,842	$ 131,391	$ 662,767	$ 17,029,298	$ -
Reductions to Rate Base															
Customer Advances for Construction															
Advances for Construction - NT Mains	$ 1,657,625	K	Mains	$ -	$ -	$ -	$ 336,217	$ 1,321,408	$ -	$ -	$ -	$ -	$ -	$ 1,657,625	$ -
Advances for Construction - NT Extension Deposits	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Advances for Construction - NT Hydrants	$ 336,220	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 336,220	$ 336,220	$ -
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	$ (23,405)	K	Mains	$ -	$ -	$ -	$ (4,747)	$ (18,658)	$ -	$ -	$ -	$ -	$ -	$ (23,405)	$ -
CIAC															
CIAC-Non Taxable - Mains	$ (40,354,566)	K	Mains	$ -	$ -	$ -	$ (8,185,136)	$ (32,169,430)	$ -	$ -	$ -	$ -	$ -	$ (40,354,566)	$ -
CIAC-Non Taxable - Ext Dep	$ (26,286,308)	K	Mains	$ -	$ -	$ -	$ (5,331,665)	$ (20,954,643)	$ -	$ -	$ -	$ -	$ -	$ (26,286,308)	$ -
CIAC-Non Taxable - Services	$ (265,700)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (265,700)	$ -	$ -	$ (265,700)	$ -
CIAC-Non Taxable - Meters	$ (584,544)	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ (584,544)	$ -	$ -	$ -	$ (584,544)	$ -
CIAC-Non Taxable - Hydrants	$ (2,774,275)	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (2,774,275)	$ (2,774,275)	$ -
CIAC-Non Taxable - Other	$ (3,047,459)	K	Mains	$ -	$ -	$ -	$ (618,118)	$ (2,429,341)	$ -	$ -	$ -	$ -	$ -	$ (3,047,459)	$ -
CIAC-Non Taxable - WIP	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Taxable - Mains	$ (30,776,674)	K	Mains	$ -	$ -	$ -	$ (6,242,448)	$ (24,534,226)	$ -	$ -	$ -	$ -	$ -	$ (30,776,674)	$ -
CIAC-Taxable - Extension Deposits	$ (7,887,871)	K	Mains	$ -	$ -	$ -	$ (1,599,901)	$ (6,287,970)	$ -	$ -	$ -	$ -	$ -	$ (7,887,871)	$ -
CIAC-Taxable - Services	$ (32,544,851)	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (32,544,851)	$ -	$ -	$ (32,544,851)	$ -
CIAC-Taxable - Meters	$ (335,686)	G	Meters	$ -	$ -	$ -	$ -	$ -	$ -	$ (335,686)	$ -	$ -	$ -	$ (335,686)	$ -
CIAC-Taxable - Hydrants	$ (38,147)	J	Hydrants	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ (38,147)	$ (38,147)	$ -
CIAC-Taxable - Other	$ (144,214)	K	Mains	$ -	$ -	$ -	$ (29,251)	$ (114,963)	$ -	$ -	$ -	$ -	$ -	$ (144,214)	$ -
CIAC-Taxable - WIP	$ -	K	Mains	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
CIAC-Taxable - Services SIT	$ -	H	Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Accum Amort CIAC	$ 37,918,862	5	Net Plant (less gen. ar	$ 2,210,819	$ 1,774,512	$ 5,586,327	$ 3,586,522	$ 14,095,841	$ 1,013,754	$ 3,749,028	$ 3,781,433	$ 578,597	$ 1,542,029	$ 37,918,862	$ -
Allocated MAWC Corporate - CIAC	$ (294,036)	K	Mains	$ -	$ -	$ -	$ (59,639)	$ (234,397)	$ -	$ -	$ -	$ -	$ -	$ (294,036)	$ -
Deferred Income Tax (Other Water)	$ (150,568,506)	5	Net Plant (less gen. ar	$ (8,778,737)	$ (7,046,245)	$ (22,182,230)	$ (14,241,390)	$ (55,971,873)	$ (4,025,422)	$ (14,886,669)	$ (15,015,344)	$ (2,297,496)	$ (6,123,102)	$ (150,568,506)	$ -
Pension/OPEB Tracker (Other Water)	$ 2,032,241	4	Labor	$ 23,441	$ 238,624	$ 521,977	$ 138,941	$ 546,070	$ 12,307	$ 319,208	$ 56,922	$ 75,042	$ 99,710	$ 2,032,241	$ -
Total Reductions	$ (253,981,294)			$ (6,544,477)	$ (5,033,109)	$ (16,073,927)	$ (32,250,614)	$ (126,752,183)	$ (2,999,361)	$ (11,738,663)	$ (43,987,539)	$ (1,643,857)	$ (6,957,564)	$ (253,981,294)	$ -
TOTAL RATE BASE (Other Water)	**$ 883,794,555**			**$ 59,799,237**	**$ 48,190,783**	**$ 151,533,109**	**$ 75,394,767**	**$ 296,318,430**	**$ 27,432,082**	**$ 100,736,259**	**$ 69,519,004**	**$ 15,588,787**	**$ 39,282,097**	**$ 883,794,555**	**$ -**

MECG Other MO 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	$ 614,524	1		$ -	$ -	$ -	$ 83,105	$ 326,620	$ -	$ 204,799	$ -	$ -	$ -	$ 614,524	
				-	-	-	0.13523	0.53150	-	0.33326	-	-	-	1.00000	
Miscellaneous T&D Maintenance Expense	$ 306,848	2		$ -	$ -	$ -	$ 20,855	$ 81,963	$ 12,871	$ 27,454	$ 59,355	$ -	$ 104,350	$ 306,848	
				-	-	-	0.06796	0.26711	0.04195	0.08947	0.19343	-	0.34007	1.00000	
Fixed O&M	$ 15,019,517	3		$ 742,300	$ 1,114,188	$ 2,477,710	$ 843,780	$ 3,316,244	$ 146,264	$ 1,807,333	$ 674,488	$ 2,711,420	$ 1,185,790	$ 15,019,517	
				0.04942	0.07418	0.16497	0.05618	0.22080	0.00974	0.12033	0.04491	0.18053	0.07895	1.00000	
Labor	$ 5,175,134	4		$ 73,201	$ 745,165	$ 1,630,009	$ 433,880	$ 1,705,248	$ 38,430	$ 996,811	$ 177,755	$ 234,337	$ 311,372	$ 6,346,208	
				0.01153	0.11742	0.25685	0.06837	0.26870	0.00606	0.15707	0.02801	0.03693	0.04906	1.00000	
Net Plant	$ 1,120,012,452	5		$ 65,301,134	$ 52,413,893	$ 165,003,788	$ 105,935,394	$ 416,349,981	$ 29,943,332	$ 110,735,342	$ 111,692,493	$ 17,090,053	$ 45,547,041	$ 1,120,012,452	
				0.05830	0.04680	0.14732	0.09458	0.37174	0.02673	0.09887	0.09972	0.01526	0.04067	1.00000	
Rate Base	$ 883,794,555	6		$ 59,799,237	$ 48,190,783	$ 151,533,109	$ 75,394,767	$ 296,318,430	$ 27,432,082	$ 100,736,259	$ 69,519,004	$ 15,588,787	$ 39,282,097	$ 883,794,555	
				0.06766	0.05453	0.17146	0.08531	0.33528	0.03104	0.11398	0.07866	0.01764	0.04445	1.00000	
Variable Cost	$ 12,101,490			$ 4,023,853	$ 1,860,865	$ 6,216,772	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 12,101,490	
	Fuel & Power			$ 2,601,526	$ 1,860,865	$ 383,380									

MECG Other MO 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

	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	
Total Usage	63,591,963	33,171,773	34,063,497	16,025,909	10,129,287	32,353		157,014,781	hundred gallons
Average Day Usage	174,225	90,882	93,325	43,907	27,751	89	-	430,177	hundred gallons
Max Day Capacity Factor	2.00	2.12	1.17	1.20	1.27			---	
Max Day Usage	348,697	192,745	109,655	52,832	35,334	21,521	68,479	829,263	hundred gallons
Extra Capacity	174,473	101,864	16,330	8,925	7,582	21,433	68,479	399,086	hundred gallons
Fire Allocator						0.2391	0.7609	1.0000	12,000 gpm for 10 hours
Distribution Multiplier	1.00	1.00	0.06	0.56		1.00	1.00	N/A	
Average Hourly Usage	7,259	3,787	251	1,018	-	4	-	12,319	hundred gallons
Max Hour Capacity Factor	4.47	2.59	1.17	1.20	1.27			---	
Max Hour Usage	32,471	9,793	295	1,225	-	4,304	13,696	61,784	hundred gallons
Extra Capacity	25,212	6,006	44	207	-	4,301	13,696	49,465	hundred gallons
Customers	121,805	11,337	69	23	3	2,945		136,182	
Hydrants						256	11,746	12,002	
Revenue	$ 68,796,681	$ 30,997,236	$ 10,574,416	$ 4,406,843	$ 1,091,501	$ 1,926,258		$ 117,792,936	

	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Meter Weighting	Service Weighting
5/8-METER	113,665	6,193	7	-	-	-		1.0	1.0
3/4-METER	1,569	184	1	-	-	-		1.5	1.0
1-METER	6,105	2,104	7	2	-	-		2.5	2.9
1.5-METER	153	434	-	-	-	-		5.0	4.0
2-METER	141	2,172	33	12	-	100		8.0	5.6
3-METER	3	101	12	4	-	3		16.0	5.6
4-METER	-	136	27	8	-	352		25.0	6.4
6-METER	-	31	23	8	-	755		50.0	9.9
8-METER	1	30	7	1	2	453		80.0	9.9
10-METER	-	3	2	-	-	71		115.0	9.9
12-METER	-	1	-	-	-	21		215.0	12.2
14-METER								320.0	12.2

MECG Other MO 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

				As Filed	Corrected	
System Load Factor:	0.5818	739,416	max day - thousand gallons per day	0.713	0.582	Average system hourly flow on max day
System Load Factor (fire):	0.5187	829,327	max day with fire - thousand gallons per day	0.621		Average system hourly flow on max day
System Load Factor (Hourly)	0.1457	84,549	max hour - thousand gallons per day			
System Load Factor (Hourly fire)	0.1201	102,545	max hour with fire - thousand gallons per day			

Mains Statistics

Type		Pct
10-Inch and Larger	2,586,511	0.2028
Under 10-inch	10,165,573	0.7972
Total	12,752,084	1.0000

Storage Statistics

Total Capacity	1,224,573	hundred gallons (2023 annual report)
Fire Allocation	0.0734	percentage of storage needed for maximum fire protection day
Non-Fire Allocation	0.9266	

MECG Other MO 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	63,591,963	33,171,773	34,063,497	16,025,909	10,129,287	32,353	-	157,014,781	hundred gallons
Allocator	**0.4050**	**0.2113**	**0.2169**	**0.1021**	**0.0645**	**0.0002**	**-**	**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	174,225	90,882	93,325	43,907	27,751	89	-	430,177	hundred gallons
Extra Capacity	174,473	101,864	16,330	8,925	7,582			309,175	hundred gallons
System Capacity Factor	0.5818								
Average Day Allocator	0.2356	0.1229	0.1262	0.0594	0.0375	0.0001	-	0.5818	
Extra Capacity Allocator	0.2360	0.1378	0.0221	0.0121	0.0103	-	-	0.4182	
Allocator	**0.4716**	**0.2607**	**0.1483**	**0.0715**	**0.0478**	**0.0001**	**-**	**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	174,225	90,882	93,325	43,907	27,751	89	-	430,177	hundred gallons
Extra Capacity	174,473	101,864	16,330	8,925	7,582	21,433	68,479	399,086	hundred gallons
System Capacity Factor	0.5187	assuming fire protection							
Average Day Allocator	0.2101	0.1096	0.1125	0.0529	0.0335	0.0001	-	0.5187	
Extra Capacity Allocator	0.2104	0.1228	0.0197	0.0108	0.0091	0.0258	0.0826	0.4813	
Combined Allocator	**0.4205**	**0.2324**	**0.1322**	**0.0637**	**0.0426**	**0.0260**	**0.0826**	**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	7,259	3,787	251	1,018	-	4	-	12,319	hundred gallons
Extra Capacity	25,212	6,006	44	207	-	4,301	13,696	49,465	hundred gallons
System Capacity Factor	0.1201	assuming fire protection							
Average Day Allocator	0.0708	0.0369	0.0024	0.0099	-	0.0000	-	0.1201	
Extra Capacity Allocator	0.4485	0.1068	0.0008	0.0037	-	0.0765	0.2436	0.8799	
Combined Allocator	**0.5192**	**0.1438**	**0.0032**	**0.0136**	**-**	**0.0765**	**0.2436**	**1.0000**	

MECG Other MO 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	7,259	3,787	3,889	1,829	1,156	4		17,924	
Extra Capacity	25,212	6,006	680	372	316	----		32,586	
Fire Allocator						0.23913	0.76087	1.00000	
System Capacity Factor	0.1201	assuming fire protection							
Average Day Allocator	0.0487	0.0254	0.0261	0.0123	0.0077	0.0000		0.1201	
Extra Capacity Allocator	0.6807	0.1622	0.0184	0.0100	0.0085			0.8799	
Allocator	0.7294	0.1876	0.0444	0.0223	0.0163	0.0000		1.0000	
Non-Fire Allocation of Storage	0.92658								
Fire Allocation of Storage	0.07342								
Non-Fire Allocator	0.6758	0.1738	0.0412	0.0207	0.0151	0.0000	-	0.9266	
Fire Allocator	-	-	-	-	-	0.0176	0.0559	0.0734	
Combined Allocator	**0.6758**	**0.1738**	**0.0412**	**0.0207**	**0.0151**	**0.0176**	**0.0559**	**1.0000**	

6. MAINS

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Factor 4	0.4205	0.2324	0.1322	0.0637	0.0426	0.0260	0.0826	1.0000	hundred gallons
Factor 5	0.5192	0.1438	0.0032	0.0136	-	0.0765	0.2436	1.0000	hundred gallons
Transmission Weighting	0.2028		Average system hourly load						
Distribution Weighting	0.7972		Average system hourly load - max day with fire protection (incremental)						
Combined Allocator	**0.4992**	**0.1618**	**0.0294**	**0.0238**	**0.0086**	**0.0663**	**0.2110**	**1.0000**	

7. HYDRANTS

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Units
Total Hydrants	-	-	-	-	-	256	11,746	12,002	
Allocator	**-**	**-**	**-**	**-**	**-**	**0.02136**	**0.97864**	**1.00000**	

MECG Other MO 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

8. METERS

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total	Weighting
5/8-METER	113,665	6,193	7	-	-			119,865	1.0
3/4-METER	1,569	184	1	-	-			1,754	1.5
1-METER	6,105	2,104	7	2	-			8,219	2.5
1.5-METER	153	434	-	-	-			587	5.0
2-METER	141	2,172	33	12	-			2,358	8.0
3-METER	3	101	12	4	-			120	16.0
4-METER	-	136	27	8	-			171	25.0
6-METER	-	31	23	8	-			62	50.0
8-METER	1	30	7	1	2			41	80.0
10-METER	-	3	2	-	-			5	115.0
12-METER	-	1	-	-	-			1	215.0
16-METER								-	320.0
Total	133,298	40,827	3,109	844	160	-		178,239	-----
Allocator	**0.74786**	**0.22906**	**0.01745**	**0.00474**	**0.00090**	**-**		**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	113,665	6,193	7	-	-	-		119,865	1.0
3/4-METER	1,569	184	1	-	-	-		1,754	1.0
1-METER	6,105	2,104	7	2	-	-		8,219	2.9
1.5-METER	153	434	-	-	-	-		587	4.0
2-METER	141	2,172	33	12	-	100		2,459	5.6
3-METER	3	101	12	4	-	3		123	5.6
4-METER	-	136	27	8	-	352		523	6.4
6-METER	-	31	23	8	-	755		817	9.9
8-METER	1	30	7	1	2	453		494	9.9
10-METER	-	3	2	-	-	71		76	9.9
12-METER	-	1	-	-	-	21		22	12.2
16-METER								-	12.2
Total	134,604	28,438	772	236	20	15,758		179,829	-----
Allocator	**0.74852**	**0.15814**	**0.00430**	**0.00131**	**0.00011**	**0.08763**		**1.00000**	

10. CUSTOMERS

Item	Residential	Non Residential	Rate J	Rate B	Rate P	Rate F Private Fire	Public Fire	Total
Total Customers	121,805	11,337	69	23	3	2,945		136,182
Allocator	**0.89443**	**0.08325**	**0.00051**	**0.00017**	**0.00002**	**0.02162**		**1.00000**

11. METERED CUSTOMERS

MECG Other MO 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	121,805	11,337	69	23	3	2,945		136,182
Allocator	**0.89443**	**0.08325**	**0.00051**	**0.00017**	**0.00002**	**0.02162**		**1.00000**

MECG Other MO Class Cost of Service Study
Case No: WR-2024-0320, SR 2024-0321
Tab: Allocator Summary

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	-	-	-	0.20283	0.79717	-	-	-	-	-	1.00000	
1	T/D Oper. Expense	-	-	-	0.13523	0.53150	-	0.33326	-	-	-	1.00000	
2	T/D Maint.. Expense	-	-	-	0.06796	0.26711	0.04195	0.08947	0.19343	-	0.34007	1.00000	
3	Fixed O&M	0.04942	0.07418	0.16497	0.05618	0.22080	0.00974	0.12033	0.04491	0.18053	0.07895	1.00000	
4	Labor	0.01153	0.11742	0.25685	0.06837	0.26870	0.00606	0.15707	0.02801	0.03693	0.04906	1.00000	
5	Net Plant (less gen. and int.)	0.05830	0.04680	0.14732	0.09458	0.37174	0.02673	0.09887	0.09972	0.01526	0.04067	1.00000	
6	Rate Base	0.06766	0.05453	0.17146	0.08531	0.33528	0.03104	0.11398	0.07866	0.01764	0.04445	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	0.40501	0.21127	0.21694	0.10207	0.06451	0.00021	-	1.00000
2	Base/Extra Daily	0.47163	0.26070	0.14830	0.07145	0.04779	0.00012	-	1.00000
3	Base/Extra Daily w/ Fire	0.42049	0.23243	0.13222	0.06371	0.04261	0.02595	0.08258	1.00000
4	Base/Extra Hourly w/ Fire	0.51925	0.14377	0.00323	0.01361	-	0.07653	0.24361	1.00000
5	Storage	0.67584	0.17379	0.04117	0.02067	0.01509	0.01758	0.05587	1.00000
7	Hydrants	-	-	-	-	-	0.02136	0.97864	1.00000
8	Meters	0.74786	0.22906	0.01745	0.00474	0.00090	-	-	1.00000
9	Services	0.74852	0.15814	0.00430	0.00131	0.00011	0.08763	-	1.00000
10	Customers	0.89443	0.08325	0.00051	0.00017	0.00002	0.02162	-	1.00000
11	T/D Oper. Expense	0.58208	0.18418	0.02541	0.01743	0.00606	0.04419	0.14065	1.00000
12	T/D Maint.. Expense	0.40733	0.11257	0.01397	0.00951	0.00363	0.04716	0.40584	1.00000
13	Fixed O&M	0.56223	0.16932	0.05253	0.02749	0.01606	0.03000	0.14236	1.00000
14	Labor	0.51978	0.19632	0.06836	0.03558	0.02098	0.02983	0.12916	1.00000
15	Net Plant (less gen. and int.)	0.52976	0.18425	0.05365	0.02991	0.01635	0.04255	0.14353	1.00000
16	Rate Base	0.52654	0.18845	0.05865	0.03185	0.01796	0.03809	0.13846	1.00000
17	Mains	0.49922	0.16175	0.02939	0.02377	0.00864	0.06627	0.21095	1.00000

Schedule JAY-3 Redacted in its Entirety

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