Exhibit No.: 16
Issues: Cost Allocation/Rate Design
Witness: Constance E. Heppenstall
Exhibit Type: Rebuttal – Rate Design
Sponsoring Party: Missouri-American Water Company
Case No.: WR-2017-0285
SR-2017-0286
Date: January 24, 2018

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2017-0285
CASE NO. SR-2017-0286

REBUTTAL TESTIMONY
COST OF SERVICE RATE DESIGN

OF

CONSTANCE E. HEPPENSTALL

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

IN THE MATTER OF MISSOURI-AMERICAN WATER COMPANY FOR AUTHORITY TO FILE TARIFFS REFLECTING INCREASED RATES FOR WATER AND SEWER SERVICE	)))))	CASE NO. WR-2017-0285 CASE NO. SR-2017-0286

AFFIDAVIT OF CONSTANCE E. HEPPENSTALL

Constance E. Heppenstall, being first duly sworn, deposes and says that she is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony Rate Design of Constance E. Heppenstall"; that said testimony and schedules were prepared by her and/or under her direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, she would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of her knowledge.

Constance E. Heppenstall

Commonwealth of Pennsylvania
County of ~~Cumberland~~ Montgomery
SUBSCRIBED and sworn to
Before me this 9th day of January 2018.

Susan F. Warner
Notary Public

My commission expires:

COMMONWEALTH OF PENNSYLVANIA
NOTARIAL SEAL
Susan F. Warner, Notary Public
Lower Providence Twp., Montgomery County
My Commission Expires July 5, 2020
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

REBUTTAL TESTIMONY
RATE DESIGN
CONSTANCE E. HEPPENSTALL
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2017-0285
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I. INTRODUCTION

Q. Please state your name and address.

A. My name is Constance E. Heppenstall. My business address is 1010 Adams Avenue, Audubon, Pennsylvania.

Q. Have you previously submitted testimony in this proceeding?

A. Yes, I have submitted direct testimony in this proceeding on behalf of Missouri-American Water Company (MAWC or Company).

II. OVERVIEW

Q. What is the purpose of your rebuttal testimony?

A. I will address the cost of service allocation and rate design issues in the Staff Report on Class Cost of Service and Rate Design, including the testimony of witnesses James A Busch and Curt B. Gately; the direct testimony and exhibits of Missouri Industrial Energy Consumers (MIEC) witnesses Brian Collins and Jessica A. York; Office of the Public Counsel (OPC) witness Geoff Marke; Missouri Department of Economic Development – Division of Energy (DE) witness Martin Hyman; Cities of St. Joseph, Joplin, Jefferson City, Warrensburg, Missouri witness Michael J. McGarry, Sr.; and, City of Riverside Witness Mayor Kathleen L. Rose.

III. COST OF SERVICE

Q. Please describe Staff's Water Cost of Service allocation.

A. The Staff performs a water cost of service study using the Base-Extra Capacity Method as described in the American Water Works Association manual of water supply practices, Principles of Water Rates, Fees and Charges, Seventh Edition (AWWA M1 Manual) which

is also the methodology used by the Company in **Schedule CEH-1**.

Q. Do you agree with Staff's allocations?

A. No. Specifically, Staff did not allocate water production costs to the fire functions. Treated water is used in fire emergencies, therefore a portion of the costs related to source of supply and water treatment should be allocated to these functions.

Q. Do you disagree with any other allocations in Staff's cost of service?

A. Yes. In Districts 2 and 3, Staff incorrectly allocates too large of a portion of transmission and distribution costs to fire protection due to an error in the calculation of Factor 7. Factor 7 is a composite of Factor 3 (used to allocate facilities serving base, max day extra capacity and fire) and Factor 4 (used to allocate facilities serving base, max hour extra capacity and fire). While both Factors 3 and 4 are incorrect in the treatment of the allocation of fire protection, I will focus on the error in Factor 4, which then affects Factor 7.

Q. Please discuss the errors in Staff's calculation of Factor 4.

A. As discuss above, the Staff is in error regarding its fire protection allocation calculations for Districts 2 and 3 in Factor 4. Factor 4's allocation is based on the weights of Factor 4A for average day, maximum hour and fire protection. The Staff's Factor 4A should utilize a rate of flow of gallons per minute for its fire protection weighting. In District 1 (Staff Report – CCOS, Schedule 5, page 2 of 18), the Staff correctly uses 20,000 gallons per minute rate of flow for fire protection demand, which weights fire protection at 0.0523. However, in Districts 2 and 3 (Staff Report – CCOS, Schedule 5, pages 8 and 14 of 18), the Staff uses the gallons per day rate of flow of 4,080,000 (8,500 GPM * 60 minutes * 8 hours = 4,080,000), instead of gallons per minute and, as a result, weights fire protection at 0.9893 in District 2 and 0.9919 in District 3. In contrast, the Staff footnotes that the system demand for fire

protection in Districts 2 and 3 is 8,500 gallons per minute, however it erroneously did not use this value. If the Staff were to use 8,500 gallons per minute for rate of flow, its calculated weight for fire protection would be much lower and in line with historic cost of service studies. The results of these errors in Factor 4 flow through to the allocations in Factor 7 and greatly increases the cost of service allocated to fire protection in Districts 2 and 3. This error in cost allocation results in Staff proposing increases to private fire protection rates of 77.2% in District 2 and 100.34% in District 3 (Staff Report – CCOS – District 2 and 3, Schedule 1, pages 2 and 3), which are much too high.

Q. MIEC witnesses Collins and York recommend a modified water class cost of service study. Please describe their modifications.

A. The MIEC witnesses recommend an alternative allocation of Purchased Fuel/Power for Source of Supply and Pumping expense items. Specifically, Ms. York recommends using Factor 2 to allocate purchased power costs associated with Source of Supply and Factor 3 to allocate purchased power costs associated with Power and Pumping. According to Ms. York, these factors reflect each customer's average load as well as peaking requirements, and in the case of Factor 3, a component for Fire Protection.

Q. MIEC witness York points to the variation in electric costs over the year as a reason to allocate these costs based on average load and peaking requirements. Do you agree?

A. No. Ms. York bases her analysis on monthly variations in water use, not daily or hourly variations. The allocation factors that she recommends reflect variations in Purchased Power costs due to daily or hourly demand. In my analysis of MAWC electric bills, it is evident that Purchased Power costs do not change significantly due to excess daily or hourly demand.

Q. Please explain your analysis of purchased power costs.

1 A. I have conducted an analysis of a sample of the Company's power bills in the St. Louis Metro
2 area and determined that the bills include a monthly demand charge regardless of the level
3 of service. Generally, electric rates are structured with a customer charge, a demand charge
4 and commodity charges. Depending on the rate schedule, there will be a monthly demand
5 charge every month even when power is at its lowest demand. The amount of the demand
6 charge that fluctuates from month to month would be considered the extra capacity portion
7 of the Company's power purchases, not the total demand charges.

8 In my analysis of power bills in **Schedule CEH-3**, the difference between the minimum
9 demand charge for the lowest demand month and the demand charges for the remaining
10 months results in approximately 5.5% of the total purchased power expense attributable to
11 extra demand. Therefore, I would support a refinement to my cost allocation that would
12 allocate 5.5% of purchased power costs to the extra capacity function; however, this
13 refinement would result in a very minor revision to my study.

14 **Q. Does the AWWA Manual M1 support your method of allocating purchased power in**
15 **this manner?**

16 A. Yes, it does. It states that "the demand portion of power costs should be
17 allocated to extra capacity ***to the degree that it varies with the demand pumping***
18 ***requirements."*** (emphasis added). It does not suggest that the total demand portion of
19 power costs should be allocated to extra capacity, only to the degree that it varies with
20 pumping requirements.

21 **Q. What is the result of allocating power costs using your alternative method?**

22 A. As shown on **Schedule CEH-4**, the result of allocating 5.5% of the power costs on an extra
23 capacity basis reduces the Rate J cost of service by $24,017 or about 0.14% of the total Rate

1 J costs - a very small and insignificant amount.

2 **Q. Did Mr. Collins recommend a similar adjustment to cost of service in the Company's**
3 **prior rate case?**

4 A. Yes, and his recommendation was rejected by the Commission.

5 **Q. Finally, MIEC witness York attempts to use Schedule JAY-2 to further support her**
6 **allocation. Please comment on this Schedule.**

7 A. In Schedule JAY-2, Ms. York calculates the average monthly purchased power rate for
8 Source of Supply and Pumping based on a cost per 1000-gallon of monthly sendout. She
9 uses this rate to calculate an allocation of purchased power to Rate J customers. Her analysis
10 is flawed as she is comparing "apples to oranges". The consumption in column 1 should be
11 the monthly sales of water, not sendout, as sendout includes non-revenue water. The
12 appropriate comparison is shown in the attached **Schedule CEH-5**, which substitutes 2016
13 monthly sales of water for monthly sendout. Schedule CEH-5 demonstrates that the
14 allocation of purchased power costs to the Rate J customers in the Company's filed cost of
15 service is correct, within $42,672 or within 2.8%. This small difference is due to the fact
16 that the filed cost of service allocation uses pro forma consumption rather than 2016 monthly
17 consumption.

18 **IV. WATER RATE DESIGN – CUSTOMER CHARGE**

19 **Q. Please describe Staff witness James A. Busch's and Missouri Department of Economic**
20 **Development Division of Energy (DE) Witness Martin R. Hyman's recommended rate**
21 **design for Water Operations.**

22 A. Both Mr. Busch and Mr. Hyman propose no change to the current statewide customer charge.

1 This includes a monthly 5/8-inch customer charge of $15.33, and a quarterly customer charge
2 of $22.35 (or an effective rate of $7.45 monthly).

3 **Q. How does this affect the Company's customers who are currently billed quarterly and**
4 **will be billed monthly in the future?**

5 A. Using Mr. Busch's rate structure, the customers who will be moving from a quarterly bill to
6 a monthly bill will incur a $7.88 increase to their customer charge ($15.33 minus $7.45), a
7 106% increase. Mr. Busch does not discuss this impact in his testimony. In the Company's
8 proposed rate design, the Company voluntarily lowered the monthly 5/8-inch customer
9 charge to $10.00, and set its quarterly charge equal to $30.00, or three times the proposed
10 monthly customer charge. This rate design would increase the quarterly customer's monthly
11 customer charge by $2.55 ($10.00 minus $7.45), mitigating the increase in customer charge
12 for these customers as they are moved from quarterly billing to monthly billing. The
13 Company's proposal to lower the monthly customer charge to $10.00 is specifically
14 contingent upon its proposal to move quarterly billed customers to monthly billing. If for
15 any reason the Company is not permitted to move from quarterly to monthly billing, then it
16 proposes to maintain the customer charges at current levels.

17 **V. <u>WATER RATE DESIGN – INCLINING BLOCK RATES</u>**

18 **Q. Staff Witness Gateley and DE Witness Hyman discuss the implementation of Inclining**
19 **Block Rates. Please explain their positions.**

20 A. Mr. Gateley describes the uncertainties involved with implementing inclining block rates
21 (Staff Report – CCOS, p. 7, ln. 27 - p. 9, ln. 2) and recommends not implementing such a
22 rate structure at this time. DE Witness Martin Hyman recommends not implementing an
23 inclining block rate structure at this time as well. In fact, he recommends a "temporary lower

tail (i.e. final) block rate designed to apply to customers at the 95th percentile…" (Hyman Dir., p. 18, ln. 13-14), which would result in a declining block rate for certain large use customers.

Q. Please describe the purpose of Inclining block rate structure.

A. Inclining block rates are implemented to promote water conservation by residential customers. Conservation is encouraged through price signals, as the more water customers use through the blocks, the higher the rate. DE witness Hyman does not recommend implementing an inclining block rate structure "unless such rates would not result in significantly adverse bill impact" (Hyman Dir., p. 19, ln. 5-6). However, there is no reason to implement inclining block rates unless there is a bill impact that sends the customer an appropriate price signal.

Q. Can a price signal be sent without using inclining block rate structure?

A. Yes. Any rate structure that is based on volumetric rates sends a price signal to the customer. The Company's current rate structure encourages conservation as every additional 100 gallons used increases the customer's bill. In fact, if the Company is permitted to move from quarterly to monthly billing, the Company's proposed rate structure further encourages conservation as it lowers the customer charge and increases the consumption charge. Therefore, a larger portion of the customer's bill is variable or based on consumption, sending a stronger price signal to the customer.

Q. What is the Company's position regarding implementation of an inclining block rate schedule?

A. Though not recommended in my direct testimony, if there is interest in implementing an inclining block rate design, the Company proposes to utilize a pilot program with inclining

1 block rates in the Joplin service area, if an RSM for the Company's entire service area is
2 approved. The approval of the RSM is critical in the implementation of inclining block rates
3 as the mechanism protects MAWC from experiencing lost revenue as a result of customer
4 water conservation.

5 **Q. Why is the Company recommending Joplin for the pilot program?**

6 A. The Joplin service area is the appropriate region for the pilot program for two reasons:

7 1. The Joplin system experiences conditions of strained water supply at times, and an
8 inclining block rate structure may encourage conservation among higher use
9 customers.

10 2. In 2011, the customer base in Joplin experienced a devastating tornado event. In
11 the rebuilding process, affected residents replaced old water fixtures with new water
12 saving fixtures. The change out to water saving fixtures will aid in isolating any
13 resulting reduction in water usage due to price sensitivity, and not due to other
14 conservation methods.

15 **Q. For the pilot program, what is the blocking structure recommended by the Company**
16 **and how was it determined?**

17 A. The Company performed a consolidated factor report for residential usage for the Joplin
18 service area. This report is attached as **Schedule CEH-6**. The median usage for the
19 residential class is 3,000 gallons per month. This level was chosen as the first block as it
20 encompasses 55% of the customers' bills and about 53% of the total consumption. The
21 second block includes the next 7,000 gallons per month which will capture many customers
22 who may not be able to conserve below 3,000 gallons due to the number of family members
23 or for other reasons. About 39.3% of customer bills fall in the second block and about 30.2%

of the total consumption is priced at the second block rate. The final third block includes usage over 10,000 gallons which encompasses the remaining 5.7% of customer bills and 16.8% of residential consumption.

Q. Please describe the rate options developed for the inclining block pilot program for Joplin.

A. We developed three different rate options – Lower Inclining, Medium Inclining and Higher Inclining blocking structures, all of which produce the same increase as originally requested and are summarized on **Schedule CEH-7**. **Schedule CEH-8** demonstrates that each option produces the equivalent revenue (column 9) as under filed rates (in column 7). This schedule also calculates the adjustment to consumption as shown in Schedule CEH-6 (2016 consolidated factor report) and adjusts consumption for the year ending May 31, 2019 (CAS-11&12).

Q. Describe the structuring of the inclining block rates in the three options.

A. The lower inclining block option increases each consumption block by 20%. For example, the first block was set at $0.55494, the second block rate is 20% higher than the first block rate or $0.66593, and the third block rate is 20% higher than the second block rate or $0.79912. The medium inclining block option increases each block by 30%. The higher inclining block option increases the second block rate by 30% and the third block rate by 50%. Schedule CEH-9 demonstrates the bill comparisons for each option as compared to present rates and the filed rates.

VII. DISTRICT SPECIFIC PRICING VS. CONSOLIDATED TARIFF PRICING

Q. Please describe Staff's position on Consolidated Tariff Pricing.

1 A. In Staff Witness James A. Busch's testimony, he lists that one of the primary benefits of
2 District Specific Pricing (DSP) is that "cost-causers pay for their own costs" (Staff Report -
3 CCOS, p. 10, ln. 27-28). Conversely, he also states that one of the primary benefits of
4 Consolidated Tariff Pricing (CTP) is "that it spreads out costs to a large customer base. This
5 helps mitigate the impact of large capital expenditure that need to be made by MAWC in any
6 particular district" (Id., p. 11, ln. 10-12). Staff recommends that the Commission maintain
7 the current three water district structure that was approved in the Company's prior rate case.
8 Staff adds the systems acquired since the last rate case to District 1 (Jaxon Estates and
9 Wardsville) and District 3 (Woodland Manor). Mr. Busch argues that maintaining the three
10 districts has the benefits of both the DSP and CTP approaches; DSP for maintaining cost
11 causation and CTP for spreading the costs over a larger customer than the original individual
12 districts.

13 **Q. Do you agree with Staff's arguments?**

14 A. No, I do not. Having three districts does not spread out costs to a sufficiently larger customer
15 base to avoid a larger increase. **Schedule CEH-10** demonstrates the overall increases for
16 each district under DSP as compared CTP. Based on the filed cost of service for each district,
17 the increases under DSP for District 2 and 3 would be 35% and 26.6%, respectively. In
18 contrast, the increases for District 2 and 3 under CTP (using rates as filed) are 4.5% and
19 19.1%, respectively. The increase for District 1 would be higher under CTP versus DSP
20 (38.7% vs. 33.4%). This slightly larger increase under CTP mitigates the overall increase to
21 two other districts. The increase to the monthly average residential bill at 3,000 gallons
22 would equal 4.1% in District 1, negative 2.2% in District 2 and 8.8% in District 3. Though
23 the Company did not submit separate rate designs for DSP, these residential increases would

1 certainly be more on a district-specific basis for District 2 and 3 in order to generate the
2 higher individual revenue requirement for these two districts.

3 **Q. Does the Staff Report - CCOS present the true-up analysis in designing its rates?**
4 A. No, the Staff does not include any additional revenue requirement for true-up which, due to
5 the large capital expenditures which will be included in the true-up, will significantly change
6 the revenue requirements for District 2.

7 **Q. The Witness for the Cities of St. Joseph, Joplin, Jefferson City and Warrensburg,**
8 **Michael J. McGarry, Sr., is also opposed to CTP because he says his clients "having**
9 **borne the costs of their own system upgrades under District-Specific Pricing, the**
10 **Coalition Cities should not now also be required to bear the costs of system upgrades**
11 **in other districts" (McGarry Dir., p. MJM-5, lines 13-15). Do you agree?**
12 A. No, I disagree for two reasons. One, customers pay for system upgrades over time through
13 depreciation expense and return on investment, not when the upgrades are installed.
14 Therefore, these cities have not fully paid for their upgrades under DSP. Two, as discussed
15 above, the customers in the Coalition Cities, with the exception of Jefferson City (which is
16 in District 1), will actually be paying less under CTP than DSP and will benefit under CTP.

17 **Q. Do you agree with Staff Witness Busch, MIEC Witness Collins and OPC Witness Geoff**
18 **Marke that DSP is a preferable structure due to "cost causation"?**
19 A. No, I do not. DSP does not solve inequities or subsidies within a district as to "cost
20 causation". For example, it is widely acknowledged that a customer who resides near the
21 treatment plant requires little in the way of distribution costs compared to a customer who
22 resides many miles away. Also, certain customers can be served directly from high service
23 pumping at the treatment facility, while others require additional booster pumping and

storage facilities in order to receive service at higher elevations. The recommendation by Staff, MIEC and OPC witnesses to maintain the current three districts does not solve the problem of cost-causers paying for service. There will always be inequities. The advantages of CTP of spreading costs over a larger customer base outweigh the concerns related to cost-causation.

Q. MIEC Witness Collins and OPC Witness Marke find fault with comparing the MAWC Water operations with an electric utility for pricing purposes. Please comment.

A. The witnesses allege fault with comparing a water utility with an electric utility because, unlike an electric utility, the MAWC water operations are not interconnected. This argument of connectivity is not relevant. What is relevant is that each MAWC residential customer receives the same service, regardless of what district they live in, and should pay the same monthly rate for the same service. Ameren Missouri residential customers pay the same rate for electricity no matter where in the state they live, or the level of their infrastructure costs. For example, a customer living in a highly populated town would be much less expensive to serve that a customer in a remote rural area of the state, yet they are charged the same rate for electric service.

In addition, I performed an analysis of the annual cost per residential customers for each district versus the consolidated district and found that the cost is relatively similar for the residential class despite the lack of interconnections.

ANNUAL COST OF WATER - RESIDENTIAL CLASS

	Cost of Service (a)	Number of Customers	Annual Cost
District 1	$ 207,659,134	335,483	$ 618.98
District 2	$ 21,815,819	34,717	$ 628.39
District 3	$ 17,491,818	34,223	$ 511.11
Consolidated District	$ 250,124,636	404,423	$ 618.47

(a) Source: Response to data request MIEC 2-002 and Schedule CEH-1.

Q. MIEC Witness Collins recommends maintaining the three pricing districts as currently approved by the Commission. Does Mr. Collins indicate what rates should be implemented <u>if</u> the Company maintains the three pricing districts?

A. He recommends that each District's class revenue allocation would be equal to its District-specific class cost of service. I agree. In response to data request MIEC 2-002, attached as **<u>Schedule CEH-12</u>**, I developed a cost of service study for each district. If DSP is approved, the cost of service for Rate J customers equals:

District 1 - $10,932,664

District 2 - $5,838,613

District 3 - <u>$3,181,716</u>

Total – $19,952,992

The cost of service studies based on the current three districts increase the Rate J cost of service from $17,765,420 (17% increase over present rate revenue of $15,173,474) to $19,952,992 (31% increase over present rate revenue), causing an overall Rate J rate increase of $4,779,517 or 31.5%. The district specific increases are as follows: 30% for District 1, 31% for District 2 and 26.6% increase for District 3, all higher than the projected CTP Rate

1 J increase of 16.5%. This analysis shows that Rate J customers will benefit from CTP yet
2 Mr. Collins does not recommend this rate design. He wrongly assumes that the increase for
3 the Rate J customers under DSP will be the same as calculated in a consolidated cost of
4 service study. If DSP is approved, I recommend rates be set according to the district specific
5 cost of service studies. The response to data request MIEC 2-002, attached as Schedule
6 CEH-12 is included as an attachment to this rebuttal testimony.

7 **Q. How does Mr. Collins address affordability?**

8 A. He recommends rate mitigation for those districts that have affordability issues. The rate
9 mitigation would require a subsidy from one district to another. This method is contrary to
10 Mr. Collins' arguments against CTP, specifically the creation of "unjust cross-subsidies" and
11 the "erosion of system efficiency". CTP is a more efficient and fairer method of addressing
12 affordability of water throughout the MAWC system.

13 **Q. What is the Cities' Witness McGarry's recommendation for rate design?**

14 A. He recommends that the Commission return to an eight-district rate design that existed before
15 the prior case. Alternatively, if CTP is approved, he recommends an off-set mechanism
16 based on "the depreciated capital investment since 2000 for each of the four cities in total
17 and divide that amount by the estimated consumption for the period of the offset. That
18 amount would be applied as a credit to the Coalition Cities on their customer's bills"
19 (McGarry Dir., p. MJM-14-15). This off-set would basically give an <u>annual</u> credit to the
20 customers of the Coalition Cities for <u>all</u> their capital investment each year, potentially paying
21 these customers multiple times over for a one-time investment. In addition, this capital
22 investment is not fully depreciated, so it has not been fully paid for by the customers of the
23 Coalition Cities, but Mr. McGarry is asking for a credit for the entire cost of these assets

This off-set in rates would necessitate a subsidy from the non-coalition areas to fund the Coalition Cities' rate base. Mr. McGarry's off-set mechanism is neither workable nor appropriate.

Q. Please describe the position of Riverside Witness Mayor Kathleen L. Rose.

A. Mayor Rose is in favor of CTP. She states, "It is unjust and unreasonable in this day and age for a resident to pay a different amount for her water just because she lives in a particular area" (Rose Dir., p 3, ln. 1-2). I concur with Mayor Rose's statement that equivalent service should reflect equivalent rates.

VIII. LEAD SERVICE LINE REPLACEMENT COST ALLOCATION

Q. MIEC Witness Collins and OPC witness Marke raise concerns regarding the allocation of lead service line replacement ("LSLR") program costs. How do you respond?.

A. As stated on page 37 of Company witness James Jenkins' Rebuttal Testimony, Revenue Requirement, the Company proposes to record these costs in Account 345 – Services. In the cost of service study, this account is allocated based on Factor 9 which allocates costs based on the relative cost of services by size and customer classification (Schedule CEH-1 Schedule C page II-22). Since most of the service lines are either residential or non-residential, this factor allocates only 0.0038 of the total to Rate J customers or MIEC customers. See detail below:

Customer Classification	3/4" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	432,673	0.7791
Non-Residential	64,996	0.1171
Rate J	2,087	0.0038
Sales for Resale	265	0.0005
Private Fire	55,244	0.0995
Total	555,265	1.0000

Since the Company proposes to record the LSLR program costs as restoration costs normally recorded in Account 345, they should be allocated as they have been historically, based on service equivalents. It is impractical to record work related to services by customer class and therefore a factor based on the weighted number of services is the fairest way to allocate these costs.

IX. SEWER COST OF SERVICE AND RATE DESIGN

Q. Does Staff perform a cost of service study for the sewer operations?

A. No, they do not, as the operations are relatively small and mostly consist of residential customers. The Company also did not provide a cost of service study for the sewer operations.

Q. Please describe Staff's proposed sewer rate design for the Arnold system.

A. Staff assumes no increase to the rates for the Arnold system, based on an allegation that the in the last rate case the Commission ordered no increase to Arnold customers until 2019. MAWC Witness LaGrand will address this issue in his rate design rebuttal testimony.

Q. Please describe Staff's proposed sewer rate design for the other sewer systems.

1 A. Staff Report – CCOS, Schedule 7 shows its proposed rates. In the schedule, Staff allocates
2 $14,234 in additional costs for each sewer system whose present rates are below the current
3 flat rate of $66.93 per month. This additional revenue is the same for each area despite each
4 area having a varied number of customers and resulting revenue. This method of allocation
5 results in a disproportionate rate increase for several areas. **Schedule CEH-11** attached to
6 this testimony summarizes the average monthly increase for each sewer district under the
7 Company's filed rates and under the Staff's proposed rates. This summary shows a $25.24
8 monthly increase for Hickory Hills. In contrast, the Company's rate design results in a
9 maximum bill increase of $15.39 (Maplewood). In addition, Staff's rate design creates eight
10 different non-Arnold rates areas, contrary to the Commission recommendation to move the
11 non-Arnold sewer systems toward a single rate. The Company's rate design moves sewer
12 rates toward CTP through the creation of two non-Arnold rate areas and lowers the monthly
13 sewer rate for 4,037 customers or 63% of the non-Arnold sewer customers. The Company's
14 sewer rate design is far superior to that proposed by Staff.

15 **X. TAX ADJUSTMENT RATE DESIGN**

16 **Q. In its rebuttal testimony, the Company filed the Pro-Forma Tax Reform Update that**
17 **adjusted the rate base and decreased the revenue requirement. Please describe the**
18 **resulting adjustment to the water cost of service and proposed rates.**
19 A. The adjusted water cost of service is reflected in **Schedule CEH-13**. Proposed
20 consumption rates were adjusted in order to scale back the increase by customer class. The
21 customer charges were not revised. See **Schedule CEH-15** for the revised CAS-11 & 12
22 related to this adjustment.

23 **Q. Please describe the adjustment to the sewer cost of service and rate design.**

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS

Description		Restrictive Diameters Squared	Quantity	Relative Demand	Allocation Factor
(1)		(2)	(3)	(4)=(2)x(3)	(5)
PRIVATE FIRE PROTECTION					
Fire Lines					
2 -inch		4.00	173	692	
3 -inch		9.00	3	27	
4 -inch		16.00	620	9,920	
6 -inch		36.00	2,402	86,472	
8 -inch		64.00	1,411	90,304	
10 -inch		100.00	58	5,800	
12 -inch		144.00	81	11,664	
Private Hydrants		20.25	-	0	
Total Rate F			4,748	204,879	0.2291
PUBLIC FIRE PROTECTION					
Hydrant	Nozzle Sizes				
5 1/4 Valve	1- 2-1/2" & 1- 4 1/2"	26.50	1,222	32,383	
4 1/2" Valve	1- 2-1/2" & 1- 4 1/2"	20.25	32,165	651,341	
4 3/4" Valve	1- 2-1/2" & 1- 4 1/2"	22.56	0	0	
4 1/2" Valve	1-2 1/2"	6.25	10	63	
4 1/4" Valve	2- 2-1/2" & 1- 4.5"	18.06	317	5,726	
Total Rate E			33,714	689,513	0.7709
Total Fire Protection			38,462	894,392	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

SUMMARY OF AVERAGE DAILY SEND OUT AND MAXIMUM DAILY USAGE
FOR THE YEARS 2011-2016

Year	Average Daily Send out (MGD)	Maximum Daily Use	
		MGD	Ratio to Average
(1)	(2)	(3)	(4)
2011	168.011	285.923	1.70
2012	185.340	400.527	2.16
2013	167.634	304.647	1.82
2014	160.548	279.088	1.74
2015	160.401	245.236	1.53

MISSOURI-AMERICAN WATER COMPANY
ALL DISTRICTS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 20. REALLOCATION OF PUBLIC FIRE

Factors are based on the relative cost of meters by size and customer classification.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	372,327	0.8572
Non-Residential	57,968	0.1334
Rate J	4,103	0.0094
Sales for Resale	0	0.0000
Private Fire	0	0.0000
Total	434,398	1.0000

FACTOR 19. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	$101,011,392	0.7172
Non-Residential	23,908,895	0.1697
Rate J	5,713,722	0.0406
Sales for Resale	2,076,071	0.0147
Private Fire	1,524,228	0.0108
Public Fire	6,621,644	0.0470
Total	$140,855,953	1.0000

FACTOR 17. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS, MISCELLANEOUS INTANGIBLE PLANT AND OTHER Rate Base ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

Customer Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
Residential	$905,002,703	0.6775
Non-Residential	265,625,910	0.1988
Rate J	49,286,584	0.0369
Sales for Resale	16,881,677	0.0126
Private Fire	12,512,291	0.0094
Public Fire	86,606,484	0.0648
Total	$1,335,915,649	1.0000

MISSOURI-AMERICAN WATER COMPANY
ALL DISTRICTS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 18. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

Factors are based on the allocation of the original cost measure of value Rate Base as shown on the following pages and summarized below.

Customer Classification	Original Cost Measure of Value	Allocation Factor
(1)	(2)	(3)
Residential	$718,081,021	0.6776
Non-Residential	210,515,732	0.1987
Rate J	39,061,285	0.0369
Sales for Resale	13,391,883	0.0126
Private Fire	9,937,295	0.0094
Public Fire	68,639,833	0.0648
Total	$1,059,627,049	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 16. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense	Allocation Factor
(1)	(2)	(3)
Residential	$18,534,356	0.7325
Non-Residential	4,098,572	0.1620
Rate J	871,955	0.0345
Sales for Resale	334,517	0.0132
Private Fire	315,972	0.0125
Public Fire	1,145,596	0.0453
Total	$25,300,969	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 14. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$22,229,638	0.7369
Non-Residential	4,797,742	0.1590
Rate J	891,051	0.0295
Sales for Resale	323,427	0.0107
Rate F - Private Fire	397,195	0.0132
Public Fire	1,529,476	0.0507
Total	$30,168,529	1.0000

FACTOR 15. ALLOCATION OF CASH WORKING CAPITAL

Factors are based on the allocation operation and maintenance expenses eINcluding purchased water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$74,120,444	0.7272
Non-Residential	16,738,417	0.1642
Rate J	4,278,685	0.0420
Sales for Resale	1,558,650	0.0153
Rate F - Private Fire	1,135,155	0.0111
Public Fire	4,094,325	0.0402
Total	$101,925,676	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 12. ALLOCATION OF BILLING AND COLLECTING COSTS.

Factors are based on the total number of customers

Customer Classification	Total Customers	Allocation Factor
(1)	(2)	(3)
Residential	335,483	0.9346
Non-Residential	18,511	0.0516
Rate J	193	0.0005
Sales for Resale	42	0.0001
Private Fire	4,748	0.0132
Public Fire	0	0.0000
Total	358,977	1.0000

FACTOR 13. ALLOCATION OF METER READING COSTS.

Factors are based on the number of metered bills.

Customer Classification	Total Metered Customers	Allocation Factor
(1)	(2)	(3)
Residential	335,483	0.9471
Non-Residential	18,511	0.0523
Rate J	193	0.0005
Sales for Resale	42	0.0001
Private Fire	0	0.0000
	354,229	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 10. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION AND ENGINEERING AND MISCELLANEOUS EXPENSES.

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Operating Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 2,385,272	0.7507
Non-Residential	578,840	0.1821
Rate J	58,287	0.0183
Sales for Resale	12,417	0.0039
Private Fire	70,985	0.0223
Public Fire	72,127	0.0227
Total	3,177,928	1.0000

FACTOR 11. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION AND ENGINEERING, STRUCTURES AND IMPROVEMENTS, AND OTHER EXPENSES.

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 2,380,351	0.6369
Non-Residential	700,227	0.1873
Rate J	78,031	0.0209
Sales for Resale	17,867	0.0048
Private Fire	74,191	0.0198
Public Fire	486,967	0.1303
Total	$3,737,634	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

	3/4"	Residential		Non-Residential		Rate J		Sales for Resale		Private Fire		Total	
Service Size	Dollar Equivalent	Number of Services	Weighting	Number of Services	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)
3/4	1.00	326,206	326,206	10,947	10,947	4	4	1	1	0	0	337,154	337,154
1	2.94	7,610	22,373	2,441	7,177	3	9	2	6	0	0	10,053	29,556
1-1/2	4.02	417	1,676	1,078	4,334	4	16	0	0	0	0	1,495	6,010
2	5.55	955	5,300	3,178	17,638	27	150	20	111	173	960	4,326	24,009
3	5.55	19	105	283	1,571	30	167	4	22	3	17	309	1,715
4	6.37	18	115	186	1,185	45	287	7	45	620	3,949	831	5,294
6	9.92	22	218	167	1,657	39	387	6	60	2,402	23,828	2,597	25,763
8	9.92	28	278	187	1,855	22	218	2	20	1,411	13,997	1,628	16,150
10	9.92	2	20	44	436	19	188	0	0	58	575	104	1,031
12 and above	12.16	0	0	0	0	0	0	0	0	81	985	81	985
Total		335,277	356,291	18,511	46,800	193	1,426	42	265	4,748	44,311	358,578	447,667

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

	5/8"	Residential		Non-Residential		Rate J		Sales for Resale		Private Fire		Total	
Meter Size	Dollar Equivalent	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)
5/8	1.0	305,550	305,550	8,059	8,059	3	3	1	1		0	313,613	313,613
3/4	2.1	20,656	43,378	2,888	6,065	1	2	0	0		0	23,545	49,445
1	2.0	7,610	15,220	2,441	4,882	3	6	2	4		0	10,056	20,112
1-1/2	3.5	417	1,460	1,078	3,773	4	14	0	0		0	1,499	5,247
2	4.3	955	4,107	3,178	13,665	27	116	20	86		0	4,180	17,974
3	7.0	19	133	283	1,981	30	210	4	28		0	336	2,352
4	10.5	18	189	186	1,953	45	473	7	74		0	256	2,689
6	16.8	22	370	167	2,806	39	655	6	101		0	234	3,932
8	64.0	28	1,792	187	11,968	22	1,408	2	128		0	239	15,296
10	64.0	2	128	44	2,816	19	1,216	0	0		0	65	4,160
12	64.0	0	0	0	0	0	0	0	0		0	0	0
Total		335,277	372,327	18,511	57,968	193	4,103	42	422	0	0	354,023	434,820

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

Customer Classification	3/4" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	356,291	0.7933
Non-Residential	46,800	0.1042
Rate J	1,426	0.0032
Sales for Resale	265	0.0006
Private Fire	44,311	0.0987
Total	449,093	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.

Costs are assigned directly to Rate E.

Customer Classification	Allocation Factor
(1)	(3)
Public Fire	1.0000
Total	1.0000

FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH METERS.

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	372,327	0.8563
Non-Residential	57,968	0.1333
Rate J	4,103	0.0094
Sales for Resale	422	0.0010
Private Fire	0	0.0000
Public Fire	0	0.0000
Total	434,820	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

	Maximum Daily Consumption w/ Fire		Maximum Hourly Consumption		
Customer Classification	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2)X 0.2035	(4)	(5)=(4)X 0.7965	(6)=(3)+(5)
Residential	0.6663	0.1356	0.6904	0.5498	0.6854
Non-Residential	0.1994	0.0406	0.2361	0.1881	0.2287
Rate J	0.0709	0.0144	0.0159	0.0127	0.0271
Sales for Resale	0.0308	0.0063	0.0000	0.0000	0.0063
Private Fire	0.0076	0.0015	0.0132	0.0105	0.0120
Public Fire	0.0250	0.0051	0.0444	0.0354	0.0405
Total	1.0000	0.2035	1.0000	0.7965	1.0000

The weighting of the factors is based on the total footage of mains, designated as either transmission mains or distribution mains, as follows:

	Total Footage of Mains	Weight
Transmission Mains	5,610,894	0.2035
Distribution Mains	21,960,719	0.7965
Total	27,571,612	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.

The weighting of the factors is based on the ratio of the capacity required for a 10 hour demand of fire flow, as related to total storage capacity.

Fire Protection Weight = $\frac{20{,}000 \text{ GPM X } 60 \text{ Min. X } 10 \text{ Hrs.}}{126{,}959{,}000 \text{ Gallons}}$ = 0.0945

General Service Weight = 1.0000 - 0.0945 = 0.9055

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

	Maximum Hour Ratio	Percent	Weight
Average Hour	1.00	40.00	0.3622
Extra Capacity Maximum Hour	1.50	60.00	0.5433
Total	2.50	100.00	0.9055

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity Factor*	1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	30,442.3	3.0	91,326.9	0.7150
Non-Residential	10,411.2	3.0	31,233.6	0.2445
Rate J	5,179.3	1.0	5,179.3	0.0405
Sales for Resale	1,878.3	0.0	0.0	0.0000
	47,911.1		127,739.8	1.0000

* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	100 Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.3622	(5)	(6)=(5) X 0.5433	(7)	(8)=(7) X 0.0945	(9)=(4)+(6)+(8)
Residential	30,442.3	0.6310	0.2284	0.7150	0.3885			0.6169
Non-Residential	10,411.2	0.2158	0.0782	0.2445	0.1328			0.2110
Rate J	5,179.3	0.1073	0.0389	0.0405	0.0220			0.0609
Sales for Resale	1,878.3	0.0389	0.0141	0.0000	0.0000			0.0141
Private Fire	77.5	0.0016	0.0006			0.2291	0.0216	0.0222
Public Fire	260.8	0.0054	0.0020			0.7709	0.0729	0.0749
Total	48,249.4	1.0000	0.3622	1.0000	0.5433	1.0000	0.0945	1.0000

The weighting of the factors is based on the ratio of the capacity required for a 10 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.5 and the average daily system sendout for 2016 of 199.6 MGD. The system demand for fire protection is 20,000 gallons per minute.

	Ratio	Rate of Flow, (GPM)	Weight
Average Hour	1.00	138,591	0.3782
Maximum Hour Extra Capacity	1.50	207,887	0.5672
Subtotal	2.50	346,478	0.9454
Fire Protection		20,000	0.0546
Total		366,478	1.0000

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity Factor*	1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	30,442.3	3.0	91,326.9	0.7381
Non-Residential	10,411.2	3.0	31,233.6	0.2524
Rate J	1,179.7	1.0	1,179.7	0.0095
Total	42,033.2		123,740.2	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.90 and the average daily system sendout for 2016 of 199.6 MGD. The system demand for fire protection is 30,000 Gallons per minute for 10 hours.

	Ratio	Rate of Flow, (GPD)	Weight
Average Day	1.00	199,570,794	0.4854
Maximum Day Extra Capacity	1.00	199,570,794	0.4854
Subtotal	2.00	399,141,588	0.9708
Fire Protection		12,000,000	0.0292
Total		411,141,588	1.0000

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule E).

DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	100 Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.3782	(5)	(6)=(5) X 0.5672	(7)	(8)=(7) X 0.0546	(9)=(4)+(6)+(8)
Residential	30,442.3	0.7185	0.2718	0.7381	0.4186			0.6904
Non-Residential	10,411.2	0.2457	0.0929	0.2524	0.1432			0.2361
Rate J	1,179.7	0.0278	0.0105	0.0095	0.0054			0.0159
Sales for Resale	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire	77.5	0.0018	0.0007			0.2291	0.0125	0.0132
Public Fire	260.8	0.0062	0.0023			0.7709	0.0421	0.0444
Total	42,371.5	1.0000	0.3782	1.0000	0.5672	1.0000	0.0546	1.0000

The maximum hour extra capacity factors in column 5 are determined as follows:

MISSOURI-AMERICAN WATER COMPANY

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DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Daily Consumption		Maximum Day Extra Capacity		Fire Protection		
Customer Classification	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2) X 0.4854	(4)	(5)=(4) X 0.4854	(6)	(7)=(6) X 0.0292	(8)=(3)+(5)+(7)
Residential	0.6310	0.3063	0.7415	0.3600			0.6663
Non-Residential	0.2158	0.1047	0.1951	0.0947			0.1994
Rate J	0.1073	0.0521	0.0388	0.0188			0.0709
Sales for Resale	0.0389	0.0189	0.0246	0.0119			0.0308
Private Fire	0.0016	0.0008			0.2291	0.0068	0.0076
Public Fire	0.0054	0.0026			0.7709	0.0224	0.0250
Total	1.0000	0.4854	1.0000	0.4854	1.0000	0.0292	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.

		Maximum Day Extra Capacity		
Customer Classification	Average Daily Consumption, 100 Gal.	Factor*	Rate of Flow, Thousand Gal. Per Day	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	730,614	1.3	949,798	0.7415
Non-Residential	249,868	1.0	249,868	0.1951
Rate J	124,302	0.4	49,721	0.0388
Sales for Resale	45,079	0.7	31,555	0.0246
	1,149,863		1,280,942	1.0000

The weighting of the factors is based on the maximum day ratio of 2.00, based on a review of maximum day ratios experienced during the period 1999 through 2016 ee Schedule D).

	Maximum Day Ratio	Weight
Average Day	1.00	0.5000
Maximum Day Extra Capacity	1.00	0.5000
Total	2.00	1.0000

* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED.

Factors are based on the pro forma test year average daily consumption for each customer classification.

Customer Classification	Average Daily Consumption, 100 Gallons	Allocation Factor
(1)	(2)	(3)
Residential	730,614	0.6310
Non-Residential	249,868	0.2158
Rate J	124,302	0.1073
Sales for Resale	45,079	0.0389
Private Fire	1,860	0.0016
Public Fire	6,258	0.0054
Total	1,157,981	1.0000

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors

Customer Classification	Average Daily Consumption		Maximum Day Extra Capacity		Allocation Factor
	Allocation Factor 1	Weighted Factor	Allocation Factor	Weighted Factor	
(1)	(2)	(3)=(2)x	(4)	(5)=(4)x	(6)=(3)+(5)
		0.5000		0.5000	
Residential	0.6310	0.3154	0.7415	0.3707	0.6861
Non-Residential	0.2158	0.1079	0.1951	0.0976	0.2055
Rate J	0.1073	0.0537	0.0388	0.0194	0.0731
Sales for Resale	0.0389	0.0195	0.0246	0.0123	0.0318
Private Fire	0.0016	0.0008			0.0008
Public Fire	0.0054	0.0027			0.0027
Total	1.0000	0.5000	1.0000	0.5000	1.0000

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Other Rate Base Items								
Add:								
Cash Working Capital	15	(661,700)	(481,188)	(108,651)	(27,791)	(10,124)	(7,345)	(26,600)
Materials and Supplies	14	4,175,616	3,077,011	663,923	123,181	44,679	55,118	211,704
Prepayments	14	0	0	0	0	0	0	0
Pension / OPEB Tracker	16	7,862,014	5,758,925	1,273,646	271,239	103,779	98,275	356,149
Tank Painting Tracker	5	285,893	176,367	60,323	17,411	4,031	6,347	21,413
Regulatory Deferrals	19	8,220	5,895	1,395	334	121	89	386
Less:								
Accumulated Deferred ITC (3%)	17	0	0	0	0	0	0	0
Deferred Income Taxes	17	(283,213,999)	(191,877,484)	(56,302,943)	(10,450,597)	(3,568,496)	(2,662,212)	(18,352,267)
Pensions	16	(6,667,496)	(4,883,941)	(1,080,134)	(230,029)	(88,011)	(83,344)	(302,038)
Total Other Rate Base Elements		(278,211,452)	(188,224,414)	(55,492,441)	(10,296,252)	(3,514,022)	(2,593,071)	(18,091,252)
Total Original Cost Measure of Value		$ 1,059,627,049	$ 718,081,021	$ 210,515,732	$ 39,061,285	$ 13,391,883	$ 9,937,295	$ 68,639,833

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Services	9	11,368,989	9,019,019	1,184,649	36,381	6,821	1,122,119	0
Meters	8	106,796,663	91,449,983	14,235,995	1,003,889	106,797	0	0
Meter Installations	8	7,177,132	6,145,778	956,712	67,465	7,177	0	0
Hydrants	7	48,107,782	0	0	0	0	0	48,107,782
Other T&D Plant	6	5,681	3,894	1,299	154	36	68	230
Misc Intangible Plant Studies	17	1,413,866	957,894	281,076	52,172	17,815	13,290	91,618
Other P/E SS	2	934	641	192	68	30	1	3
Office Furniture & Equip	14	391,140	288,231	62,191	11,539	4,185	5,163	19,831
Comp & Periph Equip	14	4,229,334	3,116,596	672,464	124,765	45,254	55,827	214,427
Computer Software	14	13,846,013	10,203,127	2,201,516	408,457	148,152	182,767	701,993
Computer Hardware and Software	14	55,106	40,607	8,762	1,626	590	727	2,794
BST Intial Investment - CIS	12	8,557,377	7,997,724	441,561	4,279	856	112,957	0
BTS Initial Investment	14	16,987,031	12,517,743	2,700,938	501,117	181,761	224,229	861,242
Other Office Equipment	14	34,119	25,142	5,425	1,006	365	450	1,730
Trans Equip Lt Duty Trks	14	8,857,324	6,526,962	1,408,315	261,291	94,773	116,917	449,066
Trans Equip Hvy Duty Trks	14	10,768,949	7,935,638	1,712,263	317,684	115,228	142,150	545,986
Trans Equip Autos	14	(903,225)	(665,586)	(143,613)	(26,645)	(9,665)	(11,923)	(45,793)
Trans Equip Other	14	1,769,183	1,303,711	281,300	52,191	18,930	23,353	89,698
Stores Equipment	14	767,522	565,587	122,036	22,642	8,212	10,131	38,913
Tools,Shop,Garage Equip	14	3,402,813	2,507,533	541,047	100,383	36,410	44,917	172,523
Laboratory Equipment	2	437,985	300,502	90,006	32,017	13,928	350	1,183
Power Operated Equipment	14	(160,307)	(118,130)	(25,489)	(4,729)	(1,715)	(2,116)	(8,128)
Comm Equip Non-Telephone	14	2,455,354	1,809,350	390,401	72,433	26,272	32,411	124,486
Comm Equip Telephone	14	(14,548)	(10,720)	(2,313)	(429)	(156)	(192)	(738)
Misc Equipment	14	1,519,442	1,119,677	241,591	44,824	16,258	20,057	77,036
Other Tangible Property	17	318,053	215,481	63,229	11,736	4,007	2,990	20,610
Total Utility Plant In Service		1,337,838,501	906,305,435	266,008,173	49,357,537	16,905,905	12,530,366	86,731,085

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Rate Base								
Organization	17	$ 178,361	$ 120,840	$ 35,458	$ 6,582	$ 2,247	$ 1,677	$ 11,558
Franchises	17	12,572	8,518	2,499	464	158	118	815
Land & Ld Rights SS	2	129,551	88,885	26,623	9,470	4,120	104	350
Land & Ld Rights P	3	345,305	230,077	68,854	24,482	10,635	2,624	8,633
Land & Ld Rights WT	2	1,961,213	1,345,588	403,029	143,365	62,367	1,569	5,295
Land & Ld Rights TD	6	4,768,125	3,268,073	1,090,470	129,216	30,039	57,218	193,109
Land & Land Rights AG	14	9,354	6,893	1,487	276	100	123	474
Struct & Imp SS	2	6,814,487	4,675,420	1,400,377	498,139	216,701	5,452	18,399
Struct & Imp P	3	6,993,114	4,659,512	1,394,427	495,812	215,388	53,148	174,828
Struct & Imp WT	2	49,070,295	33,667,130	10,083,946	3,587,039	1,560,435	39,256	132,490
Struct & Imp TD	6	3,164,864	2,169,198	723,805	85,768	19,939	37,978	128,177
Struct & Imp AG	14		0	0	0	0	0	0
Struct & Imp Offices	14	3,637,462	2,680,446	578,357	107,305	38,921	48,015	184,419
Gen Structures HVAC	14	160,260	118,096	25,481	4,728	1,715	2,115	8,125
Struct & Imp Leasehold	14	(168,206)	(123,951)	(26,745)	(4,962)	(1,800)	(2,220)	(8,528)
Struct & Imp Store,Shop,Gar	14	6,257,823	4,611,390	994,994	184,606	66,959	82,603	317,272
Struct & Imp Misc	14	779,042	574,076	123,868	22,982	8,336	10,283	39,497
Collect & Impounding	1	27	17	6	3	1	0	0
Lake, River & Other Intakes	2	5,804,194	3,982,258	1,192,762	424,287	184,573	4,643	15,671
Wells & Springs	2	1,455,701	998,756	299,147	106,412	46,291	1,165	3,930
Infiltration Galleries & Tunnels	2	0	0	0	0	0	0	0
Supply Mains	2	3,416,105	2,343,790	702,010	249,717	108,632	2,733	9,223
Power Generation Equip	2	16,437,110	11,277,501	3,377,826	1,201,553	522,700	13,150	44,380
Boiler Plant Equipment P	3		0	0	0	0	0	0
Pump Equip Steam	3	933,273	621,840	186,095	66,169	28,745	7,093	23,332
Pump Equip Electric	3	35,414,235	23,596,505	7,061,598	2,510,869	1,090,758	269,148	885,356
Pump Equip Diesel	3	290,330	193,447	57,892	20,584	8,942	2,207	7,258
Pump Equip Hydraulic	3	382,708	254,998	76,312	27,134	11,787	2,909	9,568
Pump Equip Other	3	1,029,442	685,917	205,271	72,987	31,707	7,824	25,736
Pump Equip WT	2		0	0	0	0	0	0
Pump Equip TD	6		0	0	0	0	0	0
WT Equip	2	94,036,547	64,518,475	19,324,510	6,874,072	2,990,362	75,229	253,899
WT Equip Other	2	14,488	9,940	2,977	1,059	461	12	39
Dist Reservoirs & Standpipe	5	12,142,725	7,490,847	2,562,115	739,492	171,212	269,568	909,490
TD Mains Not Classified by	6	5,086,825	3,486,510	1,163,357	137,853	32,047	61,042	206,016
TD Mains less than 10-Inch	4	549,627,274	379,462,670	129,766,999	8,739,074	0	7,255,080	24,403,451
TD Mains 10-Inch and Greater	3	279,191,642	186,025,391	55,670,813	19,794,687	8,599,103	2,121,856	6,979,791
Fire Mains	7	272,539	0	0	0	0	0	272,539

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection	
							Private	Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Amort-Other UP	18	96,997	65,725	19,273	3,579	1,222	912	6,285
Amort-UPAA	2		0	0	0	0	0	0
Amort-Property Losses	2	129,411	88,789	26,594	9,460	4,115	104	349
Taxes Other Than Income								
Utility Reg Assessment Fee	19	2,316,426	1,661,341	393,097	94,047	34,051	25,017	108,872
Property Taxes	18	19,286,516	13,068,543	3,832,231	711,672	243,010	181,293	1,249,766
Payroll Taxes	16	1,916,452	1,403,801	310,465	66,118	25,297	23,956	86,815
Other Taxes & Licenses	14	(91,243)	(67,237)	(14,508)	(2,692)	(976)	(1,204)	(4,626)
Gross Receipts Tax	19		0	0	0	0	0	0
Total Taxes, Other Than Income		23,428,151	16,066,448	4,521,286	869,145	301,382	229,062	1,440,828
Income Taxes	18	36,982,824	25,059,562	7,348,487	1,364,666	465,984	347,639	2,396,487
Utility Income Available for Return	18	85,511,903	57,942,865	16,991,215	3,155,389	1,077,450	803,812	5,541,171
Total Cost of Service		285,486,857	199,122,298	52,567,229	11,060,787	3,904,201	2,887,612	15,944,729
Less: Other Water Revenues	19	3,298,655	2,365,795	559,782	133,925	48,490	35,625	155,037
Contract Sales	19	3,475,027	2,492,289	589,712	141,086	51,083	37,530	163,326
Total Other Water Revenues		6,773,682	4,858,085	1,149,494	275,011	99,573	73,156	318,363
Total Cost of Service Related to Sales of Water		$ 278,713,175	$ 194,264,213	$ 51,417,735	$ 10,785,776	$ 3,804,628	$ 2,814,457	$ 15,626,366
Reallocation of Public Fire	20	0	13,394,921	2,084,557	146,888	0	0	(15,626,366)
Total		$ 278,713,175	$ 207,659,134	$ 53,502,292	$ 10,932,664	$ 3,804,628	$ 2,814,457	$ -

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Stores Equipment	14	22,270	16,411	3,541	657	238	294	1,129
Tools,Shop,Garage Equip	14	247,077	182,071	39,285	7,289	2,644	3,261	12,527
Laboratory Equipment	2	33,878	23,244	6,962	2,477	1,077	27	91
Power Operated Equipment	14	39,754	29,294	6,321	1,173	425	525	2,016
Comm Equip Non-Telephone	14	238,815	175,983	37,972	7,045	2,555	3,152	12,108
Comm Equip Telephone	14	1,865	1,374	297	55	20	25	95
Misc Equipment	14	148,532	109,453	23,617	4,382	1,589	1,961	7,531
Other Tangible Property	17		0	0	0	0	0	0
Total Depreciation Expense		36,975,657	25,465,595	6,847,926	1,362,152	488,985	366,218	2,444,780

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DEPRECIATION EXPENSE								
Struct & Imp SS	2	214,724	147,322	44,126	15,696	6,828	172	580
Struct & Imp P	3	516,944	344,440	103,079	36,651	15,922	3,929	12,924
Struct & Imp WT	2	1,899,683	1,303,372	390,385	138,867	60,410	1,520	5,129
Struct & Imp TD	6	115,665	79,277	26,453	3,135	729	1,388	4,684
Struct & Imp Offices	14	92,714	68,321	14,742	2,735	992	1,224	4,701
Gen Structures HVAC	14	7,682	5,661	1,221	227	82	101	389
Struct & Imp Leasehold	14	181	133	29	5	2	2	9
Struct & Imp Store,Shop,Gar	14	228,617	168,468	36,350	6,744	2,446	3,018	11,591
Struct & Imp Misc	14	54,191	39,933	8,616	1,599	580	715	2,747
Collect & Impounding	1		0	0	0	0	0	0
Lake, River & Other Intakes	2	253,936	174,225	52,184	18,563	8,075	203	686
Wells & Springs	2	47,141	32,344	9,688	3,446	1,499	38	127
Infiltration Galleries & Tunnels	2		0	0	0	0	0	0
Supply Mains	2	115,592	79,308	23,754	8,450	3,676	92	312
Power Generation Equip	3	520,777	346,994	103,843	36,923	16,040	3,958	13,019
Pump Equip Steam	3	17,205	11,464	3,431	1,220	530	131	430
Pump Equip Electric	3	1,096,137	730,356	218,570	77,716	33,761	8,331	27,403
Pump Equip Diesel	3	38,808	25,858	7,738	2,752	1,195	295	970
Pump Equip Hydraulic	3	7,410	4,937	1,478	525	228	56	185
Pump Equip Other	3	22,559	15,031	4,498	1,599	695	171	564
Pump Equip WT	2		0	0	0	0	0	0
Pump Equip TD	6		0	0	0	0	0	0
WT Equip	2	2,619,647	1,797,340	538,338	191,496	83,305	2,096	7,073
WT Equip Other	2	795	545	163	58	25	1	2
Dist Reservoirs & Standpipe	5	367,468	226,691	77,536	22,379	5,181	8,158	27,523
TD Mains Not Classified by	6	97,415	66,769	22,279	2,640	614	1,169	3,945
TD Mains less than 10-Inch	4	9,526,952	6,577,407	2,249,313	151,479	0	125,756	422,997
TD Mains 10-Inch and Greater	3	4,493,818	2,994,231	896,067	318,612	138,410	34,153	112,345
Fire Mains	7	5,848	0	0	0	0	0	5,848
Services	9	427,499	339,135	44,545	1,368	256	42,194	0
Meters	8	2,785,817	2,385,495	371,349	26,187	2,786	0	0
Meter Installations	8	431,454	369,454	57,513	4,056	431	0	0
Hydrants	7	1,289,477	0	0	0	0	0	1,289,477
Other Transmission & Distribution Plant	6	283	194	65	8	2	3	11
Other P/E SS	2	86	59	18	6	3	0	0
Office Furniture & Equip	14	33,074	24,372	5,259	976	354	437	1,677
Comp & Periph Equip	14	1,733,057	1,277,090	275,556	51,125	18,544	22,876	87,866
Computer Software	14	1,134,070	835,696	180,317	33,455	12,135	14,970	57,497
Computer Hardware and Software	14	15,212	11,210	2,419	449	163	201	771
BST Intial Investment	14	5,388,981	3,971,140	856,848	158,975	57,662	71,135	273,221
BST Intial Investment - CIS	12		0	0	0	0	0	0
Other Office Equipment	14	5,051	3,722	803	149	54	67	256
Trans Equip Lt Duty Trks	14	456,958	336,733	72,656	13,480	4,889	6,032	23,168
Trans Equip Other	14	180,537	133,038	28,705	5,326	1,932	2,383	9,153

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ADMINISTRATIVE AND GENERAL EXPENSES								
Salaries AG	14	8,113,700	5,978,986	1,290,078	239,354	86,817	107,101	411,365
Salaries AG - Other	14		0	0	0	0	0	0
Other Supplies & Exp AG	14	2,736,343	2,016,411	435,079	80,722	29,279	36,120	138,733
Mgmt Fees-Admin	14	16,660,601	12,277,344	2,649,067	491,494	178,271	219,923	844,703
Mgmt Fees-Customer Service	12	4,541,091	4,244,104	234,320	2,271	454	59,942	0
Mgmt Fees-Belleville Lab	2	95,873	65,778	19,702	7,008	3,049	77	259
Mgmt Fees- Employee	16	2,085,815	1,527,860	337,902	71,961	27,533	26,073	94,487
Outside Services AG	14	5,519,948	4,067,650	877,672	162,838	59,063	72,863	279,861
Ins Gen Liab Oper AG	14		0	0	0	0	0	0
Ins Work Comp AG	16		0	0	0	0	0	0
Ins Other Oper AG	14		0	0	0	0	0	0
Property Insurance	14	4,792,047	3,531,259	761,935	141,365	51,275	63,255	242,957
Injuries & Damages	16	(379)	(278)	(61)	(13)	(5)	(5)	(17)
Employee Pension & Benefits	16	7,646,895	5,601,351	1,238,797	263,818	100,939	95,586	346,404
Reg Commision Exp	19	436,238	312,870	74,030	17,711	6,413	4,711	20,503
Rents AG	14	94,349	69,526	15,001	2,783	1,010	1,245	4,783
Goodwill Advertising Exp	14	9,963	7,342	1,584	294	107	132	505
Misc Exp AG	14	1,525,195	1,123,916	242,506	44,993	16,320	20,133	77,327
Research & Development	14	2,477	1,825	394	73	27	33	126
TOTAL A & G OPERATIONS		54,260,356	40,825,944	8,178,006	1,526,673	560,549	707,188	2,461,996
General Plant Maint AG - Labor	14	364,911	268,903	58,021	10,765	3,905	4,817	18,501
General Plant Maint AG	14	220,460	162,457	35,053	6,504	2,359	2,910	11,177
TOTAL A & G EXPENSE - MAINTENANCE		585,371	431,360	93,074	17,268	6,263	7,727	29,678
TOTAL A & G EXPENSE		54,845,727	41,257,303	8,271,080	1,543,941	566,812	714,915	2,491,674
Total Operation & Maintenance Expenses		102,361,914	74,433,314	16,812,447	4,296,396	1,565,063	1,139,866	4,114,828

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Super & Eng Maint TD	11	63,612	40,514	11,915	1,329	305	1,260	8,289
Struct & Improve Maint TD - Labor	11	133	85	25	3	1	3	17
Dist Res Stand Maint TD - Labor	5	112	69	24	7	2	2	8
TD Main Maint TD - Labor	6	257,128	176,236	58,805	6,968	1,620	3,086	10,414
TD Main Maint TD	6	2,510,610	1,720,772	574,177	68,038	15,817	30,127	101,680
Fire Main Maint TD - Labor	7	410	0	0	0	0	0	410
Services Maint TD - Labor	9	415,150	329,338	43,259	1,328	249	40,975	0
Meters Maint TD - Labor	8	179,769	153,936	23,963	1,690	180	0	0
Hydrants Maint TD - Labor	7	374,455	0	0	0	0	0	374,455
Misc Plant Maint TD - Labor	11	1,193,190	759,943	223,484	24,938	5,727	23,625	155,473
Misc Maint TD	11	5,428,024	3,457,108	1,016,669	113,446	26,055	107,475	707,272
TOTAL T & D EXPENSE - MAINTENANCE		10,422,593	6,638,002	1,952,320	217,746	49,955	206,553	1,358,017
TOTAL T & D EXPENSE		14,971,040	10,052,122	2,780,732	301,114	67,717	308,101	1,461,254
CUSTOMER ACCOUNTS								
Supervision CA	12	57,407	53,653	2,962	29	6	758	0
Meter Reading Exp CA - Labor	13	1,920,960	1,819,341	100,466	960	192	0	0
Meter Reading Exp CA	13	4,451	4,216	233	2	0	0	0
Cust Rec & Collection CA - Labor	12	832,061	777,644	42,934	416	83	10,983	0
Cust Rec & Collection CA	12	2,134,243	1,994,664	110,127	1,067	213	28,172	0
Uncollectible Accts	12	2,122,965	1,984,123	109,545	1,061	212	28,023	0
Misc Cust Accts Exp CA - Labor	12	10,435	9,753	538	5	1	138	0
Misc Cust Accts Exp CA	12	30,462	28,470	1,572	15	3	402	0
Cust Serv & Info Exp CA - Labor	12	273	255	14	0	0	4	0
TOTAL CUSTOMER ACCOUNTING EXPENSE		7,113,257	6,672,118	368,392	3,557	711	68,480	0

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTAL WT EXPENSE		13,853,535	9,027,786	2,936,092	1,308,839	502,023	18,010	60,784
TRANSMISSION AND DISTRIBUTION EXPENSES								
Super & Eng Oper TD	10	80,399	60,356	14,641	1,471	314	1,793	1,825
Storage Facity Exp - Labor	5	483	298	102	29	7	11	36
TD Lines Exp - Labor	6	1,680,123	1,151,556	384,244	45,531	10,585	20,161	68,045
TD Lines Exp	6	99,885	68,461	22,844	2,707	629	1,199	4,045
Meter Expense - Labor	8	894,756	766,180	119,271	8,411	895	0	0
Customer Install Exp - Labor	9	502,681	398,777	52,379	1,609	302	49,615	0
Misc Exp Oper TD - Labor	10	1,450,011	1,088,523	264,047	26,535	5,655	32,335	32,915
Misc Exp Oper TD	10	(166,339)	(124,871)	(30,290)	(3,044)	(649)	(3,709)	(3,776)
Rents Oper TD	10	6,448	4,841	1,174	118	25	144	146
TOTAL T & D EXPENSE OPERATION		4,548,447	3,414,120	828,412	83,367	17,762	101,548	103,237

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Super & Eng Maint P	3	81,967	54,615	16,344	5,811	2,525	623	2,049
Struct & Improve Maint P - Labor	3	85,920	57,248	17,132	6,092	2,646	653	2,148
Power Production Maintenance - Labor	3	67	45	13	5	2	1	2
Power Production Maintenance	3	1,193	795	238	85	37	9	30
Pump Equip Maint P - Labor	3	390,139	259,950	77,794	27,661	12,016	2,965	9,753
Pump Equip Maint P	3	51,540	34,341	10,277	3,654	1,587	392	1,289
TOTAL PUMPING EXPENSES - MAINTENANCE		610,826	406,993	121,799	43,308	18,813	4,642	15,271
TOTAL PUMPING EXPENSES		5,635,504	3,629,444	1,182,022	528,960	202,369	21,500	71,209
WATER TREATMENT								
Super & Eng Oper WT	2	217,030	148,904	44,600	15,865	6,902	174	586
Chemicals	1	8,223,724	5,189,170	1,774,680	882,406	319,903	13,158	44,408
Labor & Exp Oper WT - Labor	2	2,766,427	1,898,046	568,501	202,226	87,972	2,213	7,469
Labor & Exp Oper WT	2	314,464	215,754	64,622	22,987	10,000	252	849
Misc Exp Oper WT	2	157,816	108,278	32,431	11,536	5,019	126	426
Misc Exp Oper WT - Waste Disposal	1	435,517	274,811	93,985	46,731	16,942	697	2,352
Rents Oper WT	2	120,934	82,973	24,852	8,840	3,846	97	327
TOTAL WT EXPENSE - OPERATION		12,235,912	7,917,935	2,603,670	1,190,591	450,583	16,716	56,417
Super & Eng Maint WT	2	1,331,849	913,782	273,695	97,358	42,353	1,065	3,596
Struct & Improve Maint WT - Labor	2	1,739	1,193	357	127	55	1	5
WT Equip Maint WT	2	284,035	194,876	58,369	20,763	9,032	227	767
TOTAL WT EXPENSE - MAINTENANCE		1,617,623	1,109,851	332,422	118,248	51,440	1,294	4,368

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OPERATION AND MAINTENANCE EXPENSES								
SOURCE OF SUPPLY EXPENSES								
Super & Eng Oper SS - Labor	2	$ 253	$ 174	$ 52	$ 18	$ 8	$ 0	$ 1
Labor & Exp Oper SS - Labor	2	137,763	94,519	28,310	10,070	4,381	110	372
Misc Exp Oper SS	2	5,189	3,560	1,066	379	165	4	14
Purchased Water	1	377,869	238,435	81,544	40,545	14,699	605	2,040
TOTAL SS EXPENSE - OPERATION		521,074	336,688	110,973	51,014	19,253	719	2,427
Purch Fuel/Power for SS	1	4,755,519	3,000,732	1,026,241	510,267	184,990	7,609	25,680
Rents Oper SS	2	14,749	10,119	3,031	1,078	469	12	40
Super & Eng Maint SS - Labor	2	244	167	50	18	8	0	1
Collect & Impound Maint SS - Labor	2	628	431	129	46	20	1	2
Lake, River & Oth Maint SS - Labor	2	215	148	44	16	7	0	1
Wells & Springs Maint SS - Labor	2	109,852	75,369	22,575	8,030	3,493	88	297
Infilt Gall & Tunnels Maint SS - Labor	2	508	349	104	37	16	0	1
Supply Mains Maint SS - Labor	2	199	137	41	15	6	0	1
Misc Plant Maint SS - Labor	2	315,687	216,593	64,874	23,077	10,039	253	852
Misc Plant Maint SS	2	224,176	153,807	46,068	16,387	7,129	179	605
TOTAL SS EXPENSE - MAINTENANCE		5,421,777	3,457,852	1,163,157	558,971	206,177	8,142	27,479
TOTAL SS EXPENSE		5,942,851	3,794,540	1,274,130	609,984	225,430	8,861	29,906
POWER AND PUMPING EXPENSES								
Super & Eng Oper P	3	91,621	61,047	18,269	6,496	2,822	696	2,291
Fuel for Power Prod	1	9,204	5,808	1,986	988	358	15	50
Labor & Exp Oper Pwr Prod - Labor	3	222	148	44	16	7	2	6
Purch Fuel/Power for Pump	1	3,545,825	2,237,416	765,189	380,467	137,933	5,673	19,147
Labor & Exp Oper Pump - Labor	3	1,376,460	917,149	274,470	97,592	42,396	10,461	34,412
Rents Oper P	3	1,326	884	264	94	41	10	33
TOTAL PUMPING EXPENSE - OPERATION		5,024,678	3,222,450	1,060,223	485,653	183,556	16,857	55,938

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 1

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED MAY 31, 2019

Customer Classification	Cost of Service Amount (Schedule B)	Cost of Service Percent	Revenues, Present Rates Amount	Revenues, Present Rates Percent	Revenues, Proposed Rates Amount	Revenues, Proposed Rates Percent	Proposed Increase Amount	Proposed Increase Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 207,659,134	74.5%	$ 148,933,789	71.7%	$ 211,946,860	73.2%	$ 63,013,071	42.3%
Non-Residential	53,502,292	19.2%	43,964,709	21.2%	59,867,455	20.7%	15,902,747	36.2%
Rate J	10,932,664	3.9%	8,406,584	4.1%	10,479,319	3.6%	2,072,735	24.7%
Sales for Resale	3,804,628	1.4%	3,311,494	1.6%	3,847,451	1.3%	535,957	16.2%
Private Fire	2,814,457	1.0%	2,915,515	1.4%	3,513,196	1.2%	597,681	20.5%
Total Sales	278,713,175	100.0%	207,532,091	100.0%	289,654,282	100.0%	82,122,191	39.6%
Other Revenues	3,298,655		2,694,458		3,298,655		604,197	22.4%
Contract Revenues	3,475,027		3,475,027		3,475,027		-	0.0%
Total	$ 285,486,857		$ 213,701,576		$ 296,427,964		$ 82,726,388	38.7%

MIEC 2-002

DATA INFORMATION REQUEST
Missouri-American Water Company
WR-2017-0285

Requested From: Brian LaGrand
Date Requested: 12/5/17

Information Requested:

With respect to Ms. Constance Heppenstall's direct testimony, specifically Exhibit No. CEH-1, Schedule A, in Excel format with all formulas intact, please provide separate versions of Schedule A for District 1, District 2 and District 3 that reflect the Company's class revenue and rate design proposals.

Requested By: David Woodsmall – Bryan Cave - david.woodsmall@woodsmalllaw.com
For MIEC – (Missouri Industrial Energy Consumers)

Information Provided:

See the following listed attachments to this data request:

MIEC 2-002_Attachment_District 1.xlsx
MIEC 2-002_Attachment _District 2.xlsx
MIEC 2-002_Attachment _District 3.xlsx

Responsible Witness: Connie Heppenstall

MISSOURI -AMERICAN WATER COMPANY
WASTEWATER
COMPARISON OF AVERAGE BILLS - PRESENT, AS FILED AND STAFF PROPOSED

	Number of Residential Customers		Present Monthly Bill	Company Filed Proposed Monthly Bill	Company Filed Increase	Company Filed Percentage Increase	Staff Filed Proposed Monthly Bill	Staff Filed Increase	Staff Filed Percentage Increase
Platte	100	*	$ 66.93	$ 58.42	$ (8.51)	-12.7%	$ 66.93	$ -	0.0%
Cedar Hill	844	*	66.93	58.42	(8.51)	-12.7%	66.93	-	0.0%
Warren County	423	*	66.93	58.42	(8.51)	-12.7%	66.93	-	0.0%
Anna Meadows	135		35.92	38.25	2.33	6.5%	43.57	7.65	21.3%
Ozark Meadows	26	*	66.93	58.42	(8.51)	-12.7%	66.93	-	0.0%
Maplewood	364		22.86	38.25	15.39	67.3%	24.40	1.54	6.7%
Jefferson City	1,842	*	66.93	58.42	(8.51)	-12.7%	66.93	-	0.0%
Stonebridge/Saddlebrooke/	732	*	66.93	58.42	(8.51)	-12.7%	66.93	-	0.0%
Emerald Point	351		50.84	58.42	7.58	14.9%	54.40	3.56	7.0%
Wardsville	405		50.50	58.42	7.92	15.7%	59.19	8.69	17.2%
Pevely	70	*	66.93	58.42	(8.51)	-12.7%	66.93	-	0.0%
Hickory Hills	46		35.92	38.25	2.33	6.5%	61.16	25.24	70.3%
Jaxson	58		30.00	38.25	8.25	27.5%	46.25	16.25	54.2%
Meramec	1,006		27.02	38.25	11.23	41.6%	28.33	1.31	4.8%
Subtotal	6,403								
Arnold	7,827		29.20	31.00	1.80	6.2%	29.20	- **	0.0%

* Areas where bill is lowered under Company rates, totals 4,037 out of 6,403.
** Staff testimony assumes Arnold rates are capped at current levels until 2019.

Schedule CEH-10

MISSOURI AMERICAN WATER COMPANY

SINGLE TARIFF PRICING VERSUS DISTRICT SPECIFIC PRICING

Line		District 1		District 2	District 3	Total
(1)	Cost of Service - Filing	$285,565,888	*	$41,485,539	$32,379,857	$ 359,431,284
(2)	Revenue Under Present Rates	214,014,481	**	30,728,619	25,576,908	270,320,007
(3)	Increase under DSP - Line (1) - Line (2)	$ 71,551,407		$10,756,921	$ 6,802,950	$ 89,111,278
(4)	**Percentage Increase - Line (3) divided by Line (2)**	**33.4%**		**35.0%**	**26.6%**	**33.0%**
(5)	Revenue Under Proposed Rates	$296,859,777	**	$32,099,453	$30,472,055	$ 359,431,285
(6)	Filed Increase Under STP - Line (5) - Line (2)	$ 82,845,296		$ 1,370,834	$ 4,895,147	$ 89,111,278
(7)	**Percentage Increase - Line (6) divided by Line (2)**	**38.7%**		**4.5%**	**19.1%**	**33.0%**
	Average Monthly Residential Bill at 3,000 gallons					
(8)	Under Present Rates	$ 27.75		$ 29.54	$ 26.56	
(9)	Under Proposed Filed Rates	$ 28.89		$ 28.89	$ 28.89	
(10)	Increase - Line (9) - Line (8)	$ 1.14		$ (0.66)	$ 2.33	
(11)	**Percentage Increase - Line (10) divided by Line (8)**	**4.1%**		**-2.2%**	**8.8%**	

* Includes contribution to Wastewater cost of service.
** Includes Wardsville and Peverly.

Schedule CEH-9

MISSOURI AMERICAN WATER
COMPARATIVE BILLS - JOPLIN INCLINING BLOCK PILOT PROGRAM

LOWER INCLINING BLOCK

Consumption Gallons	Present Rates Monthly Bill	Filed Rates Monthly Bill	Percentage Increase Over Present	Inclining Rates Monthly Bill	Percentage Increase Over Present
1,000	$ 19.07	$ 16.30	-14.6%	$ 15.55	-18.5%
2,000	22.81	22.59	-1.0%	21.10	-7.5%
3,000	26.56	28.89	8.8%	26.65	0.3%
4,000	30.30	35.18	16.1%	33.31	9.9%
5,000	34.04	41.48	21.8%	39.97	17.4%
6,000	37.78	47.77	26.4%	46.63	23.4%
7,000	41.53	54.07	30.2%	53.29	28.3%
8,000	45.27	60.36	33.3%	59.94	32.4%
9,000	49.01	66.66	36.0%	66.60	35.9%
10,000	52.75	72.95	38.3%	73.26	38.9%
15,000	71.47	104.43	46.1%	113.22	58.4%

MEDIUM INCLINING BLOCK

Consumption Gallons	Present Rates Monthly Bill	Filed Rates Monthly Bill	Percentage Increase Over Present	Inclining Rates Monthly Bill	Percentage Increase Over Present
1,000	$ 19.07	$ 16.30	-14.6%	$ 15.22	-20.2%
2,000	22.81	22.59	-1.0%	20.43	-10.4%
3,000	26.56	28.89	8.8%	25.65	-3.4%
4,000	30.30	35.18	16.1%	32.43	7.0%
5,000	34.04	41.48	21.8%	39.22	15.2%
6,000	37.78	47.77	26.4%	46.00	21.7%
7,000	41.53	54.07	30.2%	52.78	27.1%
8,000	45.27	60.36	33.3%	59.56	31.6%
9,000	49.01	66.66	36.0%	66.34	35.4%
10,000	52.75	72.95	38.3%	73.13	38.6%
15,000	71.47	104.43	46.1%	117.21	64.0%

HIGHER INCLINING BLOCK

Consumption Gallons	Present Rates Monthly Bill	Filed Rates Monthly Bill	Percentage Increase Over Present	Inclining Rates Monthly Bill	Percentage Increase Over Present
1,000	$ 19.07	$ 16.30	-14.6%	$ 15.03	-21.2%
2,000	22.81	22.59	-1.0%	20.07	-12.0%
3,000	26.56	28.89	8.8%	25.10	-5.5%
4,000	30.30	35.18	16.1%	31.65	4.5%
5,000	34.04	41.48	21.8%	38.19	12.2%
6,000	37.78	47.77	26.4%	44.74	18.4%
7,000	41.53	54.07	30.2%	51.28	23.5%
8,000	45.27	60.36	33.3%	57.83	27.7%
9,000	49.01	66.66	36.0%	64.37	31.3%
10,000	52.75	72.95	38.3%	70.92	34.4%
15,000	71.47	104.43	46.1%	120.01	67.9%

MISSOURI AMERICAN WATER
JOPLIN INCLINING BLOCK RATES - PILOT PROGRAM

APPLICATION OF PRESENT RATES, FILED RATES AND INCLINING RATES TO CONSUMPTION ANALYSIS - RESIDENTIAL CLASS
YEAR ENDED MAY 31, 2019

LOWER INCLINING BLOCK

Rate Block 100 Gallons	Total Consumption	Present Rate	Revenue	Filed Rate	Filed Revenue	Inclining Rate	Inclining Revenue
(1)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
First Block (First 3,000 gallons)	5,754,098	0.37424	2,153,414	0.62953	3,622,377	0.55494	3,193,179
Second Block (Next 7,000 gallons)	3,279,790	0.37424	1,227,429	0.62953	2,064,726	0.66593	2,184,111
Third Block (Over 10,000 gallons)	1,826,498	0.37424	683,549	0.62953	1,149,835	0.79912	1,459,591
Subtotal	10,860,387		4,064,392		6,836,939		6,836,881
Total Class	10,860,387		$ 4,064,392		$ 6,836,939		$ 6,836,881

MEDIUM INCLINING BLOCK

Rate Block 100 Gallons	Total Consumption	Present Rate	Revenue	Filed Rate	Filed Revenue	Inclining Rate	Inclining Revenue
(1)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
First Block (First 3,000 gallons)	5,754,098	0.37424	2,153,414	0.62953	3,622,377	0.52170	3,001,913
Second Block (Next 7,000 gallons)	3,279,790	0.37424	1,227,429	0.62953	2,064,726	0.67821	2,224,387
Third Block (Over 10,000 gallons)	1,826,498	0.37424	683,549	0.62953	1,149,835	0.88167	1,610,369
Subtotal	10,860,387		4,064,392		6,836,939		6,836,668
Total Class	10,860,387		$ 4,064,392		$ 6,836,939		$ 6,836,668

HIGHER INCLINING BLOCK

Rate Block 100 Gallons	Total Consumption	Present Rate	Revenue	Filed Rate	Filed Revenue	Inclining Rate	Inclining Revenue
(1)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
First Block (First 3,000 gallons)	5,754,098	0.37424	2,153,414	0.62953	3,622,377	0.50347	2,897,016
Second Block (Next 7,000 gallons)	3,279,790	0.37424	1,227,429	0.62953	2,064,726	0.65451	2,146,656
Third Block (Over 10,000 gallons)	1,826,498	0.37424	683,549	0.62953	1,149,835	0.98177	1,793,201
Subtotal	10,860,387		4,064,392		6,836,939		6,836,872
Total Class	10,860,387		$ 4,064,392		$ 6,836,939		$ 6,836,872

	Total Consumption *	Adjustment To 5/31/2019**
First Block (First 3,000 gallons)	5,913,770	5,754,098
Second Block (Next 7,000 gallons)	3,370,802	3,279,790
Third Block (Over 10,000 gallons)	1,877,182	1,826,498
Total Base Year Consumption - Joplin	11,161,754	10,860,387
Total Base Year Consumption - District 3	16,933,432	16,480,224
Percentage Change in Usage		97.3%

* 2016 Consolidated Factor Report
** Adjustment based on the the percentage change in consumption for District 3.

Schedule CEH-7

MISSOURI AMERICAN WATER
JOPLIN INCLINING BLOCK RATES - PILOT PROGRAM

SUMMARY OF RATE OPTIONS

	Present Rates	Filed Rates	Inclining Block		
			Lower	Medium	Higher
Customer Charge - 5/8-Inch Meter	$ 15.33	$ 10.00	$10.00	$10.00	$10.00
All Usage	0.37424	0.62953			
First Block (First 3,000 gallons)			0.55494	0.52170	0.50347
Second Block (Next 7,000 gallons)			0.66593	0.67821	0.65451
Third Block (Over 10,000 gallons)			0.79912	0.88167	0.98177

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
2,087	1	2,087	257,268	11,059,249	11,121,859
2,102	1	2,102	257,269	11,061,351	11,122,309
2,147	1	2,147	257,270	11,063,498	11,123,614
2,154	1	2,154	257,271	11,065,652	11,123,810
2,177	1	2,177	257,272	11,067,829	11,124,431
2,229	2	4,458	257,274	11,072,287	11,125,783
2,251	2	4,502	257,276	11,076,789	11,126,311
2,289	1	2,289	257,277	11,079,078	11,127,147
2,319	1	2,319	257,278	11,081,397	11,127,777
2,446	1	2,446	257,279	11,083,843	11,130,317
2,506	1	2,506	257,280	11,086,349	11,131,457
2,551	1	2,551	257,281	11,088,900	11,132,267
2,700	1	2,700	257,282	11,091,600	11,134,800
2,992	1	2,992	257,283	11,094,592	11,139,472
3,014	1	3,014	257,284	11,097,606	11,139,802
3,112	1	3,112	257,285	11,100,718	11,141,174
3,119	1	3,119	257,286	11,103,837	11,141,265
3,179	1	3,179	257,287	11,107,016	11,141,985
3,464	1	3,464	257,288	11,110,480	11,145,120
3,605	2	7,210	257,290	11,117,690	11,146,530
3,897	1	3,897	257,291	11,121,587	11,148,866
3,994	1	3,994	257,292	11,125,581	11,149,545
4,159	1	4,159	257,293	11,129,740	11,150,535
4,488	1	4,488	257,294	11,134,228	11,152,180
5,625	1	5,625	257,295	11,139,853	11,156,728
5,834	1	5,834	257,296	11,145,687	11,157,355
6,508	1	6,508	257,297	11,152,195	11,158,703
9,559	1	9,559	257,298	11,161,754	11,161,754

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
1,563	2	3,126	257,217	10,967,890	11,094,493
1,571	3	4,713	257,220	10,972,603	11,095,141
1,578	2	3,156	257,222	10,975,759	11,095,687
1,593	3	4,779	257,225	10,980,538	11,096,827
1,608	3	4,824	257,228	10,985,362	11,097,922
1,646	1	1,646	257,229	10,987,008	11,100,582
1,661	1	1,661	257,230	10,988,669	11,101,617
1,676	1	1,676	257,231	10,990,345	11,102,637
1,683	1	1,683	257,232	10,992,028	11,103,106
1,690	1	1,690	257,233	10,993,718	11,103,568
1,691	1	1,691	257,234	10,995,409	11,103,633
1,705	1	1,705	257,235	10,997,114	11,104,529
1,713	1	1,713	257,236	10,998,827	11,105,033
1,720	1	1,720	257,237	11,000,547	11,105,467
1,728	1	1,728	257,238	11,002,275	11,105,955
1,742	1	1,742	257,239	11,004,017	11,106,795
1,750	1	1,750	257,240	11,005,767	11,107,267
1,773	1	1,773	257,241	11,007,540	11,108,601
1,780	1	1,780	257,242	11,009,320	11,109,000
1,803	1	1,803	257,243	11,011,123	11,110,288
1,818	2	3,636	257,245	11,014,759	11,111,113
1,825	2	3,650	257,247	11,018,409	11,111,484
1,840	2	3,680	257,249	11,022,089	11,112,249
1,848	3	5,544	257,252	11,027,633	11,112,641
1,877	2	3,754	257,254	11,031,387	11,113,975
1,892	2	3,784	257,256	11,035,171	11,114,635
1,959	1	1,959	257,257	11,037,130	11,117,449
1,960	1	1,960	257,258	11,039,090	11,117,490
1,967	2	3,934	257,260	11,043,024	11,117,770
1,975	1	1,975	257,261	11,044,999	11,118,074
1,982	1	1,982	257,262	11,046,981	11,118,333
1,997	1	1,997	257,263	11,048,978	11,118,873
2,035	1	2,035	257,264	11,051,013	11,120,203
2,049	1	2,049	257,265	11,053,062	11,120,679
2,050	2	4,100	257,267	11,057,162	11,120,712

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
1,197	1	1,197	257,158	10,887,496	11,055,076
1,204	1	1,204	257,159	10,888,700	11,056,056
1,212	2	2,424	257,161	10,891,124	11,057,168
1,219	1	1,219	257,162	10,892,343	11,058,127
1,242	2	2,484	257,164	10,894,827	11,061,255
1,249	4	4,996	257,168	10,899,823	11,062,193
1,257	1	1,257	257,169	10,901,080	11,063,233
1,264	3	3,792	257,172	10,904,872	11,064,136
1,265	1	1,265	257,173	10,906,137	11,064,262
1,279	1	1,279	257,174	10,907,416	11,066,012
1,287	2	2,574	257,176	10,909,990	11,067,004
1,294	2	2,588	257,178	10,912,578	11,067,858
1,302	1	1,302	257,179	10,913,880	11,068,818
1,309	1	1,309	257,180	10,915,189	11,069,651
1,331	2	2,662	257,182	10,917,851	11,072,247
1,346	3	4,038	257,185	10,921,889	11,073,987
1,354	4	5,416	257,189	10,927,305	11,074,891
1,361	1	1,361	257,190	10,928,666	11,075,654
1,369	2	2,738	257,192	10,931,404	11,076,518
1,376	3	4,128	257,195	10,935,532	11,077,260
1,384	1	1,384	257,196	10,936,916	11,078,084
1,391	1	1,391	257,197	10,938,307	11,078,798
1,399	1	1,399	257,198	10,939,706	11,079,606
1,406	1	1,406	257,199	10,941,112	11,080,306
1,414	1	1,414	257,200	10,942,526	11,081,098
1,421	1	1,421	257,201	10,943,947	11,081,784
1,429	1	1,429	257,202	10,945,376	11,082,560
1,459	2	2,918	257,204	10,948,294	11,085,440
1,466	1	1,466	257,205	10,949,760	11,086,098
1,474	1	1,474	257,206	10,951,234	11,086,842
1,481	4	5,924	257,210	10,957,158	11,087,486
1,496	1	1,496	257,211	10,958,654	11,088,806
1,518	2	3,036	257,213	10,961,690	11,090,720
1,526	1	1,526	257,214	10,963,216	11,091,400
1,548	1	1,548	257,215	10,964,764	11,093,248

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
965	5	4,825	257,080	10,804,431	11,014,801
972	1	972	257,081	10,805,403	11,016,327
979	1	979	257,082	10,806,382	11,017,846
980	3	2,940	257,085	10,809,322	11,018,062
987	3	2,961	257,088	10,812,283	11,019,553
995	4	3,980	257,092	10,816,263	11,021,233
1,002	2	2,004	257,094	10,818,267	11,022,675
1,003	1	1,003	257,095	10,819,270	11,022,879
1,010	4	4,040	257,099	10,823,310	11,024,300
1,017	6	6,102	257,105	10,829,412	11,025,693
1,018	1	1,018	257,106	10,830,430	11,025,886
1,024	1	1,024	257,107	10,831,454	11,027,038
1,025	3	3,075	257,110	10,834,529	11,027,229
1,032	3	3,096	257,113	10,837,625	11,028,545
1,033	2	2,066	257,115	10,839,691	11,028,730
1,040	2	2,080	257,117	10,841,771	11,030,011
1,047	1	1,047	257,118	10,842,818	11,031,278
1,055	2	2,110	257,120	10,844,928	11,032,718
1,062	5	5,310	257,125	10,850,238	11,033,964
1,070	2	2,140	257,127	10,852,378	11,035,348
1,084	1	1,084	257,128	10,853,462	11,037,742
1,085	4	4,340	257,132	10,857,802	11,037,912
1,092	1	1,092	257,133	10,858,894	11,039,074
1,100	1	1,100	257,134	10,859,994	11,040,394
1,107	4	4,428	257,138	10,864,422	11,041,542
1,114	1	1,114	257,139	10,865,536	11,042,662
1,122	3	3,366	257,142	10,868,902	11,043,934
1,129	3	3,387	257,145	10,872,289	11,045,026
1,137	1	1,137	257,146	10,873,426	11,046,250
1,152	1	1,152	257,147	10,874,578	11,048,530
1,159	3	3,477	257,150	10,878,055	11,049,587
1,167	1	1,167	257,151	10,879,222	11,050,771
1,174	1	1,174	257,152	10,880,396	11,051,800
1,175	1	1,175	257,153	10,881,571	11,051,946
1,182	4	4,728	257,157	10,886,299	11,052,961

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
763	7	5,341	256,897	10,648,011	10,953,974
770	5	3,850	256,902	10,651,861	10,956,781
771	1	771	256,903	10,652,632	10,957,177
778	11	8,558	256,914	10,661,190	10,959,942
785	7	5,495	256,921	10,666,685	10,962,630
786	1	786	256,922	10,667,471	10,963,007
792	1	792	256,923	10,668,263	10,965,263
793	12	9,516	256,935	10,677,779	10,965,638
800	4	3,200	256,939	10,680,979	10,968,179
801	1	801	256,940	10,681,780	10,968,538
807	1	807	256,941	10,682,587	10,970,686
808	14	11,312	256,955	10,693,899	10,971,043
815	7	5,705	256,962	10,699,604	10,973,444
823	7	5,761	256,969	10,705,365	10,976,132
830	9	7,470	256,978	10,712,835	10,978,435
838	5	4,190	256,983	10,717,025	10,980,995
845	9	7,605	256,992	10,724,630	10,983,200
853	7	5,971	256,999	10,730,601	10,985,648
860	11	9,460	257,010	10,740,061	10,987,741
867	1	867	257,011	10,740,928	10,989,757
868	3	2,604	257,014	10,743,532	10,990,044
875	4	3,500	257,018	10,747,032	10,992,032
883	4	3,532	257,022	10,750,564	10,994,272
890	4	3,560	257,026	10,754,124	10,996,204
898	5	4,490	257,031	10,758,614	10,998,380
905	4	3,620	257,035	10,762,234	11,000,249
906	1	906	257,036	10,763,140	11,000,512
913	4	3,652	257,040	10,766,792	11,002,346
920	5	4,600	257,045	10,771,392	11,004,152
921	1	921	257,046	10,772,313	11,004,405
928	6	5,568	257,052	10,777,881	11,006,169
935	5	4,675	257,057	10,782,556	11,007,891
942	8	7,536	257,065	10,790,092	11,009,578
950	8	7,600	257,073	10,797,692	11,011,442
957	2	1,914	257,075	10,799,606	11,013,017

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
569	6	3,414	256,521	10,402,756	10,844,869
576	21	12,096	256,542	10,414,852	10,850,308
583	19	11,077	256,561	10,425,929	10,855,600
584	1	584	256,562	10,426,513	10,856,337
591	25	14,775	256,587	10,441,288	10,861,489
598	16	9,568	256,603	10,450,856	10,866,466
599	2	1,198	256,605	10,452,054	10,867,161
606	18	10,908	256,623	10,462,962	10,872,012
613	14	8,582	256,637	10,471,544	10,876,737
614	1	614	256,638	10,472,158	10,877,398
621	19	11,799	256,657	10,483,957	10,882,018
628	20	12,560	256,677	10,496,517	10,886,505
636	15	9,540	256,692	10,506,057	10,891,473
643	23	14,789	256,715	10,520,846	10,895,715
651	22	14,322	256,737	10,535,168	10,900,379
658	11	7,238	256,748	10,542,406	10,904,306
659	1	659	256,749	10,543,065	10,904,856
666	11	7,326	256,760	10,550,391	10,908,699
673	13	8,749	256,773	10,559,140	10,912,465
681	18	12,258	256,791	10,571,398	10,916,665
688	7	4,816	256,798	10,576,214	10,920,214
689	1	689	256,799	10,576,903	10,920,714
695	1	695	256,800	10,577,598	10,923,708
696	14	9,744	256,814	10,587,342	10,924,206
703	6	4,218	256,820	10,591,560	10,927,594
711	15	10,665	256,835	10,602,225	10,931,418
718	10	7,180	256,845	10,609,405	10,934,659
719	2	1,438	256,847	10,610,843	10,935,112
726	9	6,534	256,856	10,617,377	10,938,269
733	8	5,864	256,864	10,623,241	10,941,363
740	1	740	256,865	10,623,981	10,944,401
741	9	6,669	256,874	10,630,650	10,944,834
748	9	6,732	256,883	10,637,382	10,947,802
755	4	3,020	256,887	10,640,402	10,950,707
756	3	2,268	256,890	10,642,670	10,951,118

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
412	5	2,060	255,881	10,092,488	10,676,292
419	41	17,179	255,922	10,109,667	10,686,211
426	38	16,188	255,960	10,125,855	10,695,843
427	5	2,135	255,965	10,127,990	10,697,181
433	1	433	255,966	10,128,423	10,705,179
434	41	17,794	256,007	10,146,217	10,706,511
441	38	16,758	256,045	10,162,975	10,715,548
448	1	448	256,046	10,163,423	10,724,319
449	28	12,572	256,074	10,175,995	10,725,571
456	34	15,504	256,108	10,191,499	10,734,139
457	2	914	256,110	10,192,413	10,735,329
463	1	463	256,111	10,192,876	10,742,457
464	31	14,384	256,142	10,207,260	10,743,644
471	34	16,014	256,176	10,223,274	10,751,736
478	3	1,434	256,179	10,224,708	10,759,590
479	32	15,328	256,211	10,240,036	10,760,709
486	27	13,122	256,238	10,253,158	10,768,318
487	1	487	256,239	10,253,645	10,769,378
494	27	13,338	256,266	10,266,983	10,776,791
501	29	14,529	256,295	10,281,512	10,784,015
502	1	502	256,296	10,282,014	10,785,018
508	1	508	256,297	10,282,522	10,791,030
509	27	13,743	256,324	10,296,265	10,792,031
516	26	13,416	256,350	10,309,681	10,798,849
523	2	1,046	256,352	10,310,727	10,805,485
524	22	11,528	256,374	10,322,255	10,806,431
531	32	16,992	256,406	10,339,247	10,812,899
532	2	1,064	256,408	10,340,311	10,813,791
538	1	538	256,409	10,340,849	10,819,131
539	34	18,326	256,443	10,359,175	10,820,020
546	12	6,552	256,455	10,365,727	10,826,005
553	3	1,659	256,458	10,367,386	10,831,906
554	19	10,526	256,477	10,377,912	10,832,746
561	22	12,342	256,499	10,390,254	10,838,493
568	16	9,088	256,515	10,399,342	10,844,086

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
269	133	35,777	254,290	9,562,353	10,371,505
270	6	1,620	254,296	9,563,973	10,374,513
276	6	1,656	254,302	9,565,629	10,392,525
277	142	39,334	254,444	9,604,963	10,395,521
284	95	26,980	254,539	9,631,943	10,415,499
285	4	1,140	254,543	9,633,083	10,418,258
291	10	2,910	254,553	9,635,993	10,434,788
292	99	28,908	254,652	9,664,901	10,437,533
299	88	26,312	254,740	9,691,213	10,456,055
300	1	300	254,741	9,691,513	10,458,613
306	5	1,530	254,746	9,693,043	10,473,955
307	96	29,472	254,842	9,722,515	10,476,507
314	101	31,714	254,943	9,754,229	10,493,699
315	4	1,260	254,947	9,755,489	10,496,054
321	7	2,247	254,954	9,757,736	10,510,160
322	93	29,946	255,047	9,787,682	10,512,504
329	97	31,913	255,144	9,819,595	10,528,261
330	2	660	255,146	9,820,255	10,530,415
336	6	2,016	255,152	9,822,271	10,543,327
337	81	27,297	255,233	9,849,568	10,545,473
344	66	22,704	255,299	9,872,272	10,559,928
345	9	3,105	255,308	9,875,377	10,561,927
351	4	1,404	255,312	9,876,781	10,573,867
352	79	27,808	255,391	9,904,589	10,575,853
359	77	27,643	255,468	9,932,232	10,589,202
366	11	4,026	255,479	9,936,258	10,602,012
367	53	19,451	255,532	9,955,709	10,603,831
374	69	25,806	255,601	9,981,515	10,616,193
381	44	16,764	255,645	9,998,279	10,628,072
382	4	1,528	255,649	9,999,807	10,629,725
389	67	26,063	255,716	10,025,870	10,641,268
396	60	23,760	255,776	10,049,630	10,652,342
403	1	403	255,777	10,050,033	10,662,996
404	42	16,968	255,819	10,067,001	10,664,517
411	57	23,427	255,876	10,090,428	10,674,870

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
134	27	3,618	248,032	8,434,947	9,676,591
135	778	105,030	248,810	8,539,977	9,685,857
142	680	96,560	249,490	8,636,537	9,745,273
143	11	1,573	249,501	8,638,110	9,753,081
149	41	6,109	249,542	8,644,219	9,799,863
150	565	84,750	250,107	8,728,969	9,807,619
157	495	77,715	250,602	8,806,684	9,857,956
158	5	790	250,607	8,807,474	9,864,652
164	22	3,608	250,629	8,811,082	9,904,798
165	449	74,085	251,078	8,885,167	9,911,467
172	374	64,328	251,452	8,949,495	9,955,007
173	2	346	251,454	8,949,841	9,960,853
179	24	4,296	251,478	8,954,137	9,995,917
180	340	61,200	251,818	9,015,337	10,001,737
187	293	54,791	252,111	9,070,128	10,040,097
194	260	50,440	252,371	9,120,568	10,076,406
195	17	3,315	252,388	9,123,883	10,081,333
201	2	402	252,390	9,124,285	10,110,793
202	269	54,338	252,659	9,178,623	10,115,701
209	245	51,205	252,904	9,229,828	10,148,174
210	12	2,520	252,916	9,232,348	10,152,568
216	2	432	252,918	9,232,780	10,178,860
217	209	45,353	253,127	9,278,133	10,183,240
224	181	40,544	253,308	9,318,677	10,212,437
225	16	3,600	253,324	9,322,277	10,216,427
231	3	693	253,327	9,322,970	10,240,271
232	194	45,008	253,521	9,367,978	10,244,242
239	175	41,825	253,696	9,409,803	10,270,681
240	20	4,800	253,716	9,414,603	10,274,283
246	2	492	253,718	9,415,095	10,295,775
247	153	37,791	253,871	9,452,886	10,299,355
254	147	37,338	254,018	9,490,224	10,323,344
255	9	2,295	254,027	9,492,519	10,326,624
261	3	783	254,030	9,493,302	10,346,250
262	127	33,274	254,157	9,526,576	10,349,518

Schedule CEH-6

MISSOURI AMERICAN WATER COMPANY
CONSOLIDATED FACTOR REPORT - JOPLIN
FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2016

Flow 100 Gallons	Number of Bills	Total Consumption	Cumulative Bills	Cumulative Consumption	Consolidated Factor
(1)	(2)	(3)	(4)	(5)	(6)
0	17,773	0	17,773	0	0
7	21,474	150,318	39,247	150,318	1,676,675
8	598	4,784	39,845	155,102	1,894,726
14	10	140	39,855	155,242	3,199,444
15	31,964	479,460	71,819	634,702	3,416,887
22	34,775	765,050	106,594	1,399,752	4,715,240
23	984	22,632	107,578	1,422,384	4,865,944
29	214	6,206	107,792	1,428,590	5,764,264
30	33,803	1,014,090	141,595	2,442,680	5,913,770
37	27,932	1,033,484	169,527	3,476,164	6,723,691
38	625	23,750	170,152	3,499,914	6,811,462
44	5	220	170,157	3,500,134	7,334,338
45	21,584	971,280	191,741	4,471,414	7,421,479
52	15,246	792,792	206,987	5,264,206	7,880,378
53	584	30,952	207,571	5,295,158	7,930,689
59	124	7,316	207,695	5,302,474	8,229,051
60	11,320	679,200	219,015	5,981,674	8,278,654
67	7,897	529,099	226,912	6,510,773	8,546,635
68	189	12,852	227,101	6,523,625	8,577,021
74	63	4,662	227,164	6,528,287	8,758,203
75	5,709	428,175	232,873	6,956,462	8,788,337
82	4,153	340,546	237,026	7,297,008	8,959,312
83	63	5,229	237,089	7,302,237	8,979,584
89	91	8,099	237,180	7,310,336	9,100,838
90	3,065	275,850	240,245	7,586,186	9,120,956
97	2,228	216,116	242,473	7,802,302	9,240,327
98	115	11,270	242,588	7,813,572	9,255,152
104	48	4,992	242,636	7,818,564	9,343,412
105	1,753	184,065	244,389	8,002,629	9,358,074
112	1,476	165,312	245,865	8,167,941	9,448,437
113	12	1,356	245,877	8,169,297	9,459,870
119	42	4,998	245,919	8,174,295	9,528,396
120	1,129	135,480	247,048	8,309,775	9,539,775
127	942	119,634	247,990	8,429,409	9,611,525
128	15	1,920	248,005	8,431,329	9,620,833

Schedule CEH-5

MISSOURI-AMERICAN WATER COMPANY

Allocation of Purchase Power Expense to Rate J
Based on Actual Purchased Power Rates for Pumping

Line	Description	Sale of Water Volume (1,000 gallons (a)	Purchased Power Cost for Source of Supply & Pumping	Monthly Average Purchased Power Rate ($/1,000 gallons)	Rate J Monthly Volumes (1,000 gal.)	Rate J Allocated Purchased Power Costs
		(1)	(2)	(3)	(4)	(5)
1	Jan-16	3,524,963	$ 744,667	0.21	456,857	$ 95,940
2	Feb-16	3,456,000	748,287	0.22	529,141	116,411
3	Mar-16	3,631,051	641,014	0.18	490,333	88,260
4	Apr-16	3,578,182	698,614	0.20	557,412	111,482
5	May-16	3,542,209	720,905	0.20	508,995	101,799
6	Jun-16	4,384,322	1,302,027	0.30	559,318	167,795
7	Jul-16	4,687,816	1,412,697	0.30	600,291	180,087
8	Aug-16	5,688,401	1,103,129	0.19	736,904	140,012
9	Sep-16	5,732,802	1,370,304	0.24	672,041	161,290
10	Oct-16	4,545,483	764,737	0.17	581,631	98,877
11	Nov-16	4,356,316	640,160	0.15	566,065	84,910
12	Dec-16	3,946,283	792,751	0.20	611,943	122,389
13	Total	51,073,828	$ 10,939,292		6,870,931	$ 1,469,252

Allocation as filed	1,511,924
Difference	$ 42,672

(a) MAWC's respont to MIEC 1-009.

MISSOURI-AMERICAN WATER COMPANY
ALL WATER DISTRICTS
REVISED COST OF SERVICE BASED ON MIEC ALLOCATION TO PURCHASED POWER
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED MAY 31, 2019

Customer Classification	Cost of Service Amount (Schedule B)	Cost of Service Percent	Revenues, Present Rates Amount	Revenues, Present Rates Percent	Revenues, Proposed Rates Amount	Revenues, Proposed Rates Percent	Proposed Increase Amount	Proposed Increase Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 250,047,247	71.3%	$ 177,161,196	67.8%	$ 242,660,412	69.3%	$ 65,499,216	37.0%
Non-Residential	70,544,482	20.2%	57,675,916	22.0%	76,939,713	22.0%	19,263,797	33.4%
Rate J	17,789,437	5.1%	15,173,474	5.8%	17,681,116	5.1%	2,507,642	16.5%
Sales for Resale	7,089,428	2.0%	6,865,390	2.6%	7,725,641	2.2%	860,251	12.5%
Private Fire	4,536,911	1.3%	5,000,939	1.9%	5,000,181	1.4%	(758)	0.0%
Total Sales	350,007,504	99.9%	261,876,916	100.1%	350,007,064	100.0%	88,130,148	33.7%
Other Revenues	4,154,107		3,420,164		4,154,107		733,943	21.5%
Contract Revenues	5,270,114		5,022,927		5,270,114		247,187	4.9%
Total	$ 359,431,725 *		$ 270,320,007		$ 359,431,285		$ 89,111,278	33.0%

* Includes $79,471 Hickory Hill Sewer Transfer.

Schedule CEH-3

MISSOURI AMERICAN WATER COMPANY
ANALYSIS OF PURCHASED POWER

Account		Rate Sched.	Total Power Purchased	Total Demand Charges	Minimum Demand Charge	Excess Demand Charges	Percent Excess Demand to Total Bill
5241003413	Central Plant 1	11M	$ 3,369,632.87	$ 1,083,562.19	$ 791,082.23	$ 292,479.96	8.68%
6241003519	Central Plant 2	4M	999,322.90	54,729.32	2,760.00	51,969.32	5.20%
1341003022	North Plant	4M	895,220.84	50,195.65	37,174.45	13,021.21	1.45%
3341003119	South Plant 1	4M	656,188.96	36,638.73	28,085.77	8,552.96	1.30%
4341003216	South Plant 2	4M	219,794.19	16,475.22	10,234.08	6,241.14	2.84%
341003915	Ross Booster	4M	101,500.05	9,422.00	502.24	8,919.76	8.79%
9850007413	Airport Booster	3M	24,057.65	3,813.76	3,364.00	449.76	1.87%
790001817	Chesterfield Boosete	3M	99,116.75	12,022.73	8,931.43	3,091.30	3.12%
7241003616	Meramec 1	3M	724,089.11	44,580.19	31,931.10	12,649.09	1.75%
8241003713	Meramec 2	3M	194,074.16	18,639.88	12,789.92	5,849.96	3.01%
Total			7,282,997.48	1,330,079.67	926,855.21	403,224.46	5.54%

1 A. The adjusted sewer cost of service is reflected in **Schedule CEH-14**. As a result of this
2 adjustment, we eliminated the rate increase for the Arnold District, and lowered rates for
3 Cedar Hill, Jefferson City, Wardsville, Emerald Pointe, Incline Village, Ozark Meadows,
4 and Platte County. The sewer rates for Anna Meadows, Maplewood, Fenton, Hickory
5 Hills, and Jaxson Estates would remain as originally proposed. See **Schedule CEH-15** for
6 the revised CAS-11 & 12 related to this adjustment.

7 **Q. Does this conclude your rebuttal testimony?**

8 A. Yes, it does.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Other Rate Base Items								
Add:								
Cash Working Capital	15	(545,100)	(294,190)	(96,156)	(67,974)	(40,501)	(9,539)	(36,740)
Materials and Supplies	14	335,366	194,378	54,933	30,116	17,573	7,512	30,854
Prepayments	14	0	0	0	0	0	0	0
Pension / OPEB Tracker	16	782,328	425,195	139,567	83,005	48,661	17,681	68,219
Tank Painting Tracker	5	28,449	9,698	6,122	4,216	1,752	1,539	5,121
Regulatory Deferrals	19	0	0	0	0	0	0	0
Less:								
Accumulated Deferred ITC (3%)	17	(283)	(121)	(59)	(44)	(27)	(6)	(25)
Deferred Income Taxes	17	(39,181,931)	(16,809,048)	(8,173,351)	(6,139,809)	(3,753,629)	(850,248)	(3,455,846)
Pensions	16	(663,465)	(360,593)	(118,362)	(70,394)	(41,268)	(14,994)	(57,854)
Total Other Rate Base Elements		(39,244,636)	(16,834,682)	(8,187,305)	(6,160,884)	(3,767,438)	(848,056)	(3,446,272)
Total Original Cost Measure of Value		$ 145,841,891	$ 62,581,286	$ 30,413,390	$ 22,838,621	$ 13,961,690	$ 3,172,341	$ 12,874,563

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED.

Factors are based on the pro forma test year average daily consumption for each customer classification.

Customer Classification	Average Daily Consumption, 100 Gallons	Allocation Factor
(1)	(2)	(3)
Residential	48,490	0.3366
Non-Residential	33,582	0.2331
Rate J	37,865	0.2629
Sales for Resale	23,105	0.1604
Private Fire	232	0.0016
Public Fire	773	0.0054
Total	144,047	1.0000

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors

Customer Classification	Average Daily Consumption		Maximum Day Extra Capacity		Allocation Factor
	Allocation Factor 1	Weighted Factor	Allocation Factor	Weighted Factor	
(1)	(2)	(3)=(2)x 0.6667	(4)	(5)=(4)x 0.3333	(6)=(3)+(5)
Residential	0.3366	0.2244	0.4801	0.1600	0.3844
Non-Residential	0.2331	0.1554	0.2327	0.0776	0.2330
Rate J	0.2629	0.1753	0.1500	0.0500	0.2253
Sales for Resale	0.1604	0.1069	0.1372	0.0457	0.1526
Private Fire	0.0016	0.0011			0.0011
Public Fire	0.0054	0.0036			0.0036
Total	1.0000	0.6667	1.0000	0.3333	1.0000

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.

		Maximum Day Extra Capacity		
Customer Classification	Average Daily Consumption, 100 Gal.	Factor*	Rate of Flow, Thousand Gal. Per Day	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	48,490	1.0	48,490	0.4801
Non-Residential	33,582	0.7	23,507	0.2327
Rate J	37,865	0.4	15,146	0.1500
Sales for Resale	23,105	0.6	13,863	0.1372
	143,042		101,006	1.0000

The weighting of the factors is based on the maximum day ratio of 2.00, based on a review of maximum day ratios experienced during the period 1999 through 2016 ee Schedule D).

	Maximum Day Ratio	Weight
Average Day	1.00	0.6667
Maximum Day Extra Capacity	0.50	0.3333
Total	1.50	1.0000

* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Daily Consumption		Maximum Day Extra Capacity		Fire Protection		
Customer Classification	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2) X 0.5872	(4)	(5)=(4) X 0.2936	(6)	(7)=(6) X 0.1192	(8)=(3)+(5)+(7)
Residential	0.3366	0.1976	0.4801	0.1410			0.3386
Non-Residential	0.2331	0.1369	0.2327	0.0683			0.2052
Rate J	0.2629	0.1544	0.1500	0.0440			0.1984
Sales for Resale	0.1604	0.0942	0.1372	0.0403			0.1345
Private Fire	0.0016	0.0009			0.2313	0.0277	0.0286
Public Fire	0.0054	0.0032			0.7687	0.0915	0.0947
Total	1.0000	0.5872	1.0000	0.2936	1.0000	0.1192	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	100 Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.3833	(5)	(6)=(5) X 0.3833	(7)	(8)=(7) X 0.2334	(9)=(4)+(6)+(8)
Residential	2,020.4	0.4869	0.1866	0.5749	0.2204			0.4070
Non-Residential	1,399.3	0.3373	0.1293	0.3413	0.1308			0.2601
Rate J	687.4	0.1657	0.0635	0.0838	0.0321			0.0956
Sales for Resale	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire	9.7	0.0023	0.0009			0.2313	0.0540	0.0549
Public Fire	32.2	0.0078	0.0030			0.7687	0.1794	0.1824
Total	4,149.0	1.0000	0.3833	1.0000	0.3833	1.0000	0.2334	1.0000

The maximum hour extra capacity factors in column 5 are determined as follows:

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.90 and the average daily system sendout for 2016 of 20.1 MGD. The system demand for fire protection is 8,500 Gallons per minute for 8 hours.

	Ratio	Rate of Flow, (GPD)	Weight
Average Day	1.00	20,100,913	0.5872
Maximum Day Extra Capacity	0.50	10,050,456	0.2936
Subtotal	1.50	30,151,369	0.8808
Fire Protection		4,080,000	0.1192
Total		34,231,369	1.0000

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.0 and the average daily system sendout for 2016 of 20.1 MGD. The system demand for fire protection is 8,500 gallons per minute.

	Ratio	Rate of Flow, (GPM)	Weight
Average Hour	1.00	13,959	0.3833
Maximum Hour Extra Capacity	1.00	13,959	0.3833
Subtotal	2.00	27,918	0.7666
Fire Protection		8,500	0.2334
Total		36,418	1.0000

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity Factor*	1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	2,020.4	3.5	7,071.4	0.5749
Non-Residential	1,399.3	3.0	4,197.9	0.3413
Rate J	687.4	1.5	1,031.1	0.0838
Total	4,107.1		12,300.4	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	100 Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.3843	(5)	(6)=(5) X 0.3843	(7)	(8)=(7) X 0.2314	(9)=(4)+(6)+(8)
Residential	2,020.4	0.3366	0.1294	0.5504	0.2115			0.3409
Non-Residential	1,399.3	0.2331	0.0896	0.3268	0.1256			0.2152
Rate J	1,577.7	0.2629	0.1010	0.1228	0.0472			0.1482
Sales for Resale	962.7	0.1604	0.0616	0.0000	0.0000			0.0616
Private Fire	9.7	0.0016	0.0006			0.2313	0.0535	0.0541
Public Fire	32.2	0.0054	0.0021			0.7687	0.1779	0.1800
Total	6,002.0	1.0000	0.3843	1.0000	0.3843	1.0000	0.2314	1.0000

The weighting of the factors is based on the ratio of the capacity required for a 10 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.

The weighting of the factors is based on the ratio of the capacity required for a 8 hour demand of fire flow, as related to total storage capacity.

Fire Protection Weight = $\frac{8{,}500 \text{ GPM X } 60 \text{ Min. X } 8 \text{ Hrs.}}{17{,}630{,}000 \text{ Gallons}}$ = 0.2314

General Service Weight = 1.0000 - 0.2314 = 0.7686

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

	Maximum Hour Ratio	Percent	Weight
Average Hour	1.00	50.00	0.3843
Extra Capacity Maximum Hour	1.00	50.00	0.3843
Total	2.00	100.00	0.7686

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity Factor*	1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	2,020.4	3.5	7,071.4	0.5504
Non-Residential	1,399.3	3.0	4,197.9	0.3268
Rate J	1,577.7	1.0	1,577.7	0.1228
Sales for Resale	962.7	0.0	0.0	0.0000
	5,960.1		12,847.0	1.0000

* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

	Maximum Daily Consumption w/ Fire		Maximum Hourly Consumption		
Customer Classification	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2)X 0.2273	(4)	(5)=(4)X 0.7727	(6)=(3)+(5)
Residential	0.3386	0.0770	0.4070	0.3145	0.3915
Non-Residential	0.2052	0.0466	0.2601	0.2010	0.2476
Rate J	0.1984	0.0451	0.0956	0.0739	0.1190
Sales for Resale	0.1345	0.0306	0.0000	0.0000	0.0306
Private Fire	0.0286	0.0065	0.0549	0.0424	0.0489
Public Fire	0.0947	0.0215	0.1824	0.1409	0.1624
Total	1.0000	0.2273	1.0000	0.7727	1.0000

The weighting of the factors is based on the total footage of mains, designated as either transmission mains or distribution mains, as follows:

	Total Footage of Mains	Weight
Transmission Mains	902,387	0.2273
Distribution Mains	3,067,578	0.7727
Total	3,969,965	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.

Costs are assigned directly to Rate E.

Customer Classification	Allocation Factor
(1)	(3)
Public Fire	1.0000
Total	1.0000

FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH METERS.

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	37,754	0.8186
Non-Residential	7,562	0.1640
Rate J	611	0.0132
Sales for Resale	193	0.0042
Private Fire	0	0.0000
Public Fire	0	0.0000
Total	46,120	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

Customer Classification	3/4" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	37,200	0.7323
Non-Residential	8,169	0.1608
Rate J	368	0.0072
Sales for Resale	161	0.0032
Private Fire	4,904	0.0965
Total	50,802	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

	5/8"	Residential		Non-Residential		Rate J		Sales for Resale		Private Fire		Total	
Meter Size	Dollar Equivalent	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)
5/8	1.0	31,912	31,912	1,954	1,954	1	1	1	1		0	33,868	33,868
3/4	2.1	1,561	3,278	168	353	1	2	0	0		0	1,730	3,633
1	2.0	1,205	2,410	587	1,174	3	6	1	2		0	1,796	3,592
1-1/2	3.5	21	74	141	494	0	0	0	0		0	162	568
2	4.3	17	73	594	2,554	23	99	13	56		0	647	2,782
3	7.0	1	7	28	196	9	63	3	21		0	41	287
4	10.5	0	0	21	221	14	147	6	63		0	41	431
6	16.8	0	0	10	168	6	101	3	50		0	19	319
8	64.0	0	0	7	448	3	192	0	0		0	10	640
10	64.0	0	0	0	0	0	0	0	0		0	0	0
12	64.0	0	0	0	0	0	0	0	0		0	0	0
Total		34,717	37,754	3,510	7,562	60	611	27	193	0	0	38,314	46,120

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

	3/4"	Residential		Non-Residential		Rate J		Sales for Resale		Private Fire		Total	
Service Size	Dollar Equivalent	Number of Services	Weighting	Number of Services	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)
3/4	1.00	33,473	33,473	2,122	2,122	2	2	1	1	0	0	35,596	35,596
1	2.94	1,205	3,543	587	1,726	3	9	1	3	0	0	1,793	5,272
1-1/2	4.02	21	84	141	567	0	0	0	0	0	0	162	651
2	5.55	17	94	594	3,297	23	128	13	72	20	111	644	3,574
3	5.55	1	6	28	155	9	50	3	17	2	11	34	189
4	6.37	0	0	21	134	14	89	6	38	116	739	143	911
6	9.92	0	0	10	99	6	60	3	30	240	2,381	253	2,510
8	9.92	0	0	7	69	3	30	0	0	127	1,260	134	1,329
10	9.92	0	0	0	0	0	0	0	0	27	268	27	268
12 and above	12.16	0	0	0	0	0	0	0	0	11	134	11	134
Total		34,717	37,200	3,510	8,169	60	368	27	161	543	4,904	38,797	50,434

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 10. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION AND ENGINEERING AND MISCELLANEOUS EXPENSES.

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Operating Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 176,177	0.5658
Non-Residential	65,470	0.2103
Rate J	22,253	0.0715
Sales for Resale	5,860	0.0188
Private Fire	13,280	0.0427
Public Fire	28,302	0.0909
Total	311,342	1.0000

FACTOR 11. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION AND ENGINEERING, STRUCTURES AND IMPROVEMENTS, AND OTHER EXPENSES.

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 64,258	0.4394
Non-Residential	22,090	0.1511
Rate J	6,606	0.0452
Sales for Resale	1,768	0.0121
Private Fire	6,428	0.0440
Public Fire	45,069	0.3082
Total	$146,220	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 12. ALLOCATION OF BILLING AND COLLECTING COSTS.

Factors are based on the total number of customers

Customer Classification	Total Customers	Allocation Factor
(1)	(2)	(3)
Residential	34,717	0.8915
Non-Residential	3,510	0.0901
Rate J	60	0.0015
Sales for Resale	27	0.0007
Private Fire	631	0.0162
Public Fire	0	0.0000
Total	38,945	1.0000

FACTOR 13. ALLOCATION OF METER READING COSTS.

Factors are based on the number of metered bills.

Customer Classification	Total Metered Customers	Allocation Factor
(1)	(2)	(3)
Residential	34,717	0.9061
Non-Residential	3,510	0.0916
Rate J	60	0.0016
Sales for Resale	27	0.0007
Private Fire	0	0.0000
	38,314	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASS

FACTOR 14. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance exper water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses
(1)	(2)
Residential	$1,761,627
Non-Residential	497,803
Rate J	272,826
Sales for Resale	159,135
Rate F - Private Fire	68,118
Public Fire	279,445
Total	$3,038,954

FACTOR 15. ALLOCATION OF CASH WORKING CAPITAL

Factors are based on the allocation operation and maintenance expenses eINcludin chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses
(1)	(2)
Residential	$7,701,402
Non-Residential	2,516,553
Rate J	1,778,423
Sales for Resale	1,060,213
Rate F - Private Fire	249,372
Public Fire	960,956
Total	$14,266,918

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASS

FACTOR 16. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense
(1)	(2)
Residential	$1,348,635
Non-Residential	442,847
Rate J	263,423
Sales for Resale	154,455
Private Fire	56,090
Public Fire	216,350
Total	$2,481,800

FACTOR 17. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS MISCELLANEOUS INTANGIBLE PLANT AND OTHER Rate Base ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other allocated, as follows:

Customer Classification	Original Cost Less Depreciation
(1)	(2)
Residential	$79,197,960
Non-Residential	38,494,690
Rate J	28,919,874
Sales for Resale	17,680,445
Private Fire	4,009,370
Public Fire	16,276,013
Total	$184,578,352

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASS

FACTOR 18. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR F

Factors are based on the allocation of the original cost measure of value Rate Base pages and summarized below.

Customer Classification	Original Cost Measure of Value
(1)	(2)
Residential	$62,581,286
Non-Residential	30,413,390
Rate J	22,838,621
Sales for Resale	13,961,690
Private Fire	3,172,341
Public Fire	12,874,563
Total	$145,841,891

FACTOR 19. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSES OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those it

Customer Classification	Total Cost of Service
(1)	(2)
Residential	$10,501,104
Non-Residential	3,658,324
Rate J	2,594,833
Sales for Resale	1,568,458
Private Fire	371,374
Public Fire	1,412,447
Total	$20,106,539

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASS

FACTOR 20. REALLOCATION OF PUBLIC FIRE

Factors are based on the relative cost of meters by size and customer classification.

Customer Classification	5/8" Dollar Equivalents
(1)	(2)
Residential	37,754
Non-Residential	7,562
Rate J	611
Sales for Resale	0
Private Fire	0
Total	45,927

IFICATIONS, cont.

ıses excluding purchased

Allocation Factor
(3)
0.5796
0.1638
0.0898
0.0524
0.0224
0.0920
1.0000

ɜ purchased water, power,

Allocation Factor
(3)
0.5397
0.1764
0.1247
0.0743
0.0175
0.0674
1.0000

IFICATIONS, cont.

Allocation Factor (3)
0.5435
0.1784
0.1061
0.0622
0.0226
0.0872
1.0000

than those items being

Allocation Factor (3)
0.4290
0.2086
0.1567
0.0958
0.0217
0.0882
1.0000

IFICATIONS, cont.

RETURN.

as shown on the following

Allocation Factor
(3)
0.4291
0.2085
0.1566
0.0957
0.0218
0.0883
1.0000

SSMENTS AND

ems being allocated.

Allocation Factor
(3)
0.5223
0.1819
0.1291
0.0780
0.0185
0.0702
1.0000

IFICATIONS, cont.

Allocation Factor
(3)
0.8220
0.1647
0.0133
0.0000
0.0000
1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED MAY 31, 2019

Customer Classification	Cost of Service Amount (Schedule B)	Cost of Service Percent	Revenues, Present Rates Amount	Revenues, Present Rates Percent	Revenues, Proposed Rates Amount	Revenues, Proposed Rates Percent	Proposed Increase Amount	Proposed Increase Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 21,815,819	54.0%	$ 14,864,387	49.8%	$ 15,368,361	49.4%	$ 503,974	3.4%
Non-Residential	8,444,231	20.9%	7,006,694	23.5%	7,999,663	25.8%	992,969	14.2%
Rate J	5,838,613	14.4%	4,458,541	15.0%	4,258,367	13.7%	(200,174)	-4.5%
Sales for Resale	3,525,148	8.7%	2,504,861	8.4%	2,724,092	8.8%	219,231	8.8%
Private Fire	816,655	2.0%	985,642	3.3%	703,896	2.3%	(281,746)	-28.6%
Total Sales	40,440,466	100.0%	29,820,126	100.0%	31,054,379	100.0%	1,234,254	4.1%
Other Revenues	433,545		372,182		433,545		61,364	16.5%
Contract Revenues	611,528		536,311		611,528		75,217	14.0%
Total	$ 41,485,539		$ 30,728,619		$ 32,099,453		$ 1,370,834	4.5%

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

SUMMARY OF AVERAGE DAILY SEND OUT AND MAXIMUM DAILY USAGE
FOR THE YEARS 2009-2016

Year	Average Daily Send out (MGD)	Maximum Daily Use	
		MGD	Ratio to Average
(1)	(2)	(3)	(4)
2009	19.570	26.219	1.34
2010	19.671	26.901	1.37
2011	19.614	28.153	1.44
2012	20.639	30.789	1.49
2013	20.304	33.111	1.63
2014	19.288	26.683	1.38
2015	19.496	25.886	1.33
2016	20.101	29.145	1.45

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 2

BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS

Description		Restrictive Diameters Squared	Quantity	Relative Demand	Allocation Factor
(1)		(2)	(3)	(4)=(2)x(3)	(5)
PRIVATE FIRE PROTECTION					
Fire Lines					
2 -inch		4.00	20	80	
3 -inch		9.00	2	18	
4 -inch		16.00	116	1,856	
6 -inch		36.00	240	8,640	
8 -inch		64.00	127	8,128	
10 -inch		100.00	27	2,700	
12 -inch		144.00	11	1,584	
Private Hydrants		20.25	88	1,782	
Total Rate F			631	24,788	0.2313
PUBLIC FIRE PROTECTION					
Hydrant	Nozzle Sizes				
5 1/4 Valve	1- 2-1/2" & 1- 4 1/2"	26.50	822	21,783	
4 1/2" Valve	1- 2-1/2" & 1- 4 1/2"	20.25	2,916	59,049	
4 3/4" Valve	1- 2-1/2" & 1- 4 1/2"	22.56	0	0	
4 1/2" Valve	1-2 1/2"	6.25	246	1,538	
4 1/4" Valve	2- 2-1/2" & 1- 4.5"	18.06	0	0	
Total Rate E			3,984	82,370	0.7687
Total Fire Protection			4,615	107,158	1.0000

MISSOURI AMERICAN WATER COMPANY

CALCULATION OF THE 5/8-INCH CUSTOMER COSTS PER MONTH
INCLUDING THE UNRECOVERED PUBLIC FIRE COSTS

Cost Function	Cost of Service	Number of Units	Unit Cost Per Month
Meters	$ 3,051,339	46,120 5/8 Equivalents	$ 5.51
Services	2,091,817	45,898 3/4 Equivalents	3.80
Billing/Collecting	4,476,195	4,001,295 Bills	1.12
Subtotal	9,619,351		10.43
Unrecovered Public Fire	3,218,908	46,120 5/8 Equivalents	5.82
Total	$ 12,838,259		$ 16.25

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OPERATION AND MAINTENANCE EXPENSES								
SOURCE OF SUPPLY EXPENSES								
Super & Eng Oper SS - Labor	2	$ 27	$ 11	$ 8	$ 5	$ 2	$ 0	$ 0
Labor & Exp Oper SS - Labor	2	14,403	6,051	4,337	2,836	1,121	17	42
Misc Exp Oper SS	2	1,490	626	449	293	116	2	4
Purchased Water	1	31,625	11,951	9,975	6,901	2,574	66	158
TOTAL SS EXPENSE - OPERATION		47,545	18,639	14,768	10,035	3,813	86	204
Purch Fuel/Power for SS	1	948,684	358,508	299,215	207,003	77,223	1,992	4,743
Rents Oper SS	2	1,908	802	574	376	148	2	6
Super & Eng Maint SS - Labor	2	26	11	8	5	2	0	0
Collect & Impound Maint SS - Labor	2	66	28	20	13	5	0	0
Lake, River & Oth Maint SS - Labor	2	22	9	7	4	2	0	0
Wells & Springs Maint SS - Labor	2	11,484	4,824	3,458	2,261	893	14	33
Infilt Gall & Tunnels Maint SS - Labor	2	53	22	16	10	4	0	0
Supply Mains Maint SS - Labor	2	21	9	6	4	2	0	0
Misc Plant Maint SS - Labor	2	33,004	13,865	9,938	6,498	2,568	40	96
Misc Plant Maint SS	2	29,859	12,544	8,991	5,879	2,323	36	87
TOTAL SS EXPENSE - MAINTENANCE		1,025,127	390,621	322,232	222,054	83,170	2,084	4,965
TOTAL SS EXPENSE		1,072,672	409,260	337,000	232,090	86,983	2,169	5,169
POWER AND PUMPING EXPENSES								
Super & Eng Oper P	3	9,579	3,470	2,521	1,657	651	384	895
Fuel for Power Prod	1	1,836	694	579	401	149	4	9
Labor & Exp Oper Pwr Prod - Labor	3	23	8	6	4	2	1	2
Purch Fuel/Power for Pump	1	707,354	267,309	223,099	154,345	57,579	1,485	3,537
Labor & Exp Oper Pump - Labor	3	143,909	52,138	37,877	24,896	9,786	5,771	13,441
Rents Oper P	3	172	62	45	30	12	7	16
TOTAL PUMPING EXPENSE - OPERATION		862,873	323,682	264,128	181,332	68,179	7,652	17,900

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Super & Eng Maint P	3	8,570	3,105	2,256	1,483	583	344	800
Struct & Improve Maint P - Labor	3	8,982	3,254	2,364	1,554	611	360	839
Power Production Maintenance - Labor	3	7	3	2	1	0	0	1
Power Production Maintenance	3	159	58	42	28	11	6	15
Pump Equip Maint P - Labor	3	40,790	14,778	10,736	7,057	2,774	1,636	3,810
Pump Equip Maint P	3	6,861	2,486	1,806	1,187	467	275	641
TOTAL PUMPING EXPENSES - MAINTENANCE		65,369	23,683	17,205	11,309	4,445	2,621	6,105
TOTAL PUMPING EXPENSES		928,242	347,365	281,333	192,641	72,624	10,273	24,005
WATER TREATMENT								
Super & Eng Oper WT	2	22,691	9,532	6,832	4,468	1,765	27	66
Chemicals	1	458,119	173,123	144,491	99,962	37,291	962	2,291
Labor & Exp Oper WT - Labor	2	289,228	121,505	87,087	56,949	22,502	347	839
Labor & Exp Oper WT	2	81,319	34,162	24,485	16,012	6,327	98	236
Misc Exp Oper WT	2	212,042	89,079	63,846	41,751	16,497	254	615
Misc Exp Oper WT - Waste Disposal	1	0	0	0	0	0	0	0
Rents Oper WT	2	15,645	6,572	4,711	3,081	1,217	19	45
TOTAL WT EXPENSE - OPERATION		1,079,044	433,974	331,451	222,222	85,599	1,707	4,091
Super & Eng Maint WT	2	139,244	58,496	41,926	27,417	10,833	167	404
Struct & Improve Maint WT - Labor	2	182	76	55	36	14	0	1
WT Equip Maint WT	2	37,802	15,881	11,382	7,443	2,941	45	110
TOTAL WT EXPENSE - MAINTENANCE		177,228	74,453	53,363	34,896	13,788	213	514

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTAL WT EXPENSE		1,256,272	508,427	384,815	257,118	99,387	1,920	4,605
TRANSMISSION AND DISTRIBUTION EXPENSES								
Super & Eng Oper TD	10	8,406	4,671	2,235	293	61	444	702
Storage Facility Exp - Labor	5	51	13	11	4	1	7	15
TD Lines Exp - Labor	6	175,655	69,823	57,193	9,679	1,880	11,137	25,944
TD Lines Exp	6	14,024	5,575	4,566	773	150	889	2,071
Meter Expense - Labor	8	93,547	74,155	18,055	964	374	0	0
Customer Install Exp - Labor	9	52,555	37,051	9,476	279	63	5,686	0
Misc Exp Oper TD - Labor	10	151,597	84,242	40,310	5,276	1,107	8,004	12,658
Misc Exp Oper TD	10	(27,406)	(15,230)	(7,287)	(954)	(200)	(1,447)	(2,288)
Rents Oper TD	10	834	463	222	29	6	44	70
TOTAL T & D EXPENSE OPERATION		469,263	260,764	124,780	16,341	3,442	24,764	39,172

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Super & Eng Maint TD	11	6,651	2,872	1,218	140	29	346	2,046
Struct & Improve Maint TD - Labor	11	14	6	3	0	0	1	4
Dist Res Stand Maint TD - Labor	5	12	3	3	1	0	2	4
TD Main Maint TD - Labor	6	26,882	10,686	8,753	1,481	288	1,704	3,970
TD Main Maint TD	6	23,155	9,204	7,539	1,276	248	1,468	3,420
Fire Main Maint TD - Labor	7	43	0	0	0	0	0	43
Services Maint TD - Labor	9	43,404	30,600	7,826	230	52	4,696	0
Meters Maint TD - Labor	8	18,795	14,899	3,627	194	75	0	0
Hydrants Maint TD - Labor	7	39,149	0	0	0	0	0	39,149
Misc Plant Maint TD - Labor	11	124,748	53,866	22,854	2,620	549	6,487	38,372
Misc Maint TD	11	547,957	236,608	100,386	11,507	2,411	28,494	168,552
TOTAL T & D EXPENSE - MAINTENANCE		830,810	358,743	152,208	17,448	3,652	43,197	255,560
TOTAL T & D EXPENSE		1,300,073	619,507	276,988	33,789	7,094	67,961	294,733
CUSTOMER ACCOUNTS								
Supervision CA	12	6,001	5,250	625	8	1	117	0
Meter Reading Exp CA - Labor	13	200,836	179,166	21,349	281	40	0	0
Meter Reading Exp CA	13	699	624	74	1	0	0	0
Cust Rec & Collection CA - Labor	12	86,992	76,101	9,065	113	17	1,696	0
Cust Rec & Collection CA	12	336,481	294,354	35,061	437	67	6,561	0
Uncollectible Accts	12	300,363	262,758	31,298	390	60	5,857	0
Misc Cust Accts Exp CA - Labor	12	1,091	954	114	1	0	21	0
Misc Cust Accts Exp CA	12	4,866	4,257	507	6	1	95	0
Cust Serv & Info Exp CA - Labor	12	28	24	3	0	0	1	0
TOTAL CUSTOMER ACCOUNTING EXPENSE		937,357	823,486	98,096	1,239	187	14,349	0

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ADMINISTRATIVE AND GENERAL EXPENSES								
Salaries AG	14	848,284	480,723	177,631	62,943	23,158	23,328	80,502
Salaries AG - Other	14		0	0	0	0	0	0
Other Supplies & Exp AG	14	567,020	321,330	118,734	42,073	15,480	15,593	53,810
Mgmt Fees-Admin	14	2,808,602	1,591,635	588,121	208,398	76,675	77,237	266,536
Mgmt Fees-Customer Service	12	765,516	669,674	79,767	995	153	14,928	0
Mgmt Fees-Belleville Lab	2	16,162	6,790	4,866	3,182	1,257	19	47
Mgmt Fees- Employee	16	351,617	191,139	79,465	29,852	11,006	9,810	30,345
Outside Services AG	14	550,377	311,899	115,249	40,838	15,025	15,135	52,231
Ins Gen Liab Oper AG	14		0	0	0	0	0	0
Ins Work Comp AG	16		0	0	0	0	0	0
Ins Other Oper AG	14		0	0	0	0	0	0
Property Insurance	14	751,283	425,752	157,319	55,745	20,510	20,660	71,297
Injuries & Damages	16	(77)	(42)	(17)	(7)	(2)	(2)	(7)
Employee Pension & Benefits	16	985,170	535,538	222,648	83,641	30,836	27,486	85,020
Reg Commision Exp	19	68,543	36,910	15,655	6,594	2,440	1,782	5,161
Rents AG	14	12,207	6,918	2,556	906	333	336	1,158
Goodwill Advertising Exp	14	2,014	1,141	422	149	55	55	191
Misc Exp AG	14	252,135	142,885	52,797	18,708	6,883	6,934	23,928
Research & Development	14	501	284	105	37	14	14	48
TOTAL A & G OPERATIONS		7,979,354	4,722,575	1,615,318	554,056	203,823	213,315	670,267
General Plant Maint AG - Labor	14	38,151	21,620	7,989	2,831	1,042	1,049	3,621
General Plant Maint AG	14	29,341	16,628	6,144	2,177	801	807	2,784
TOTAL A & G EXPENSE - MAINTENANCE		67,492	38,248	14,133	5,008	1,843	1,856	6,405
TOTAL A & G EXPENSE		8,046,846	4,760,823	1,629,451	559,064	205,665	215,171	676,672
Total Operation & Maintenance Expenses		13,541,462	7,468,870	3,007,683	1,275,941	471,941	311,843	1,005,185

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DEPRECIATION EXPENSE								
Struct & Imp SS	2	115,674	48,595	34,829	22,776	8,999	139	335
Struct & Imp P	3	86,604	31,377	22,794	14,982	5,889	3,473	8,089
Struct & Imp WT	2	395,619	166,200	119,121	77,897	30,779	475	1,147
Struct & Imp TD	6	20,694	8,226	6,738	1,140	221	1,312	3,056
Struct & Imp Offices	14	19,423	11,007	4,067	1,441	530	534	1,843
Gen Structures HVAC	14	0	0	0	0	0	0	0
Struct & Imp Leasehold	14	341	193	71	25	9	9	32
Struct & Imp Store,Shop,Gar	14	120,553	68,317	25,244	8,945	3,291	3,315	11,440
Struct & Imp Misc	14	2,475	1,403	518	184	68	68	235
Collect & Impounding	1	419	158	132	91	34	1	2
Lake, River & Other Intakes	2	24,590	10,330	7,404	4,842	1,913	30	71
Wells & Springs	2	147,856	62,114	44,519	29,113	11,503	177	429
Infiltration Galleries & Tunnels	2	0	0	0	0	0	0	0
Supply Mains	2	67,481	28,349	20,318	13,287	5,250	81	196
Power Generation Equip	3	25,019	9,064	6,585	4,328	1,701	1,003	2,337
Pump Equip Steam	3	4,534	1,643	1,193	784	308	182	423
Pump Equip Electric	3	111,282	40,317	29,289	19,252	7,567	4,462	10,394
Pump Equip Diesel	3	1,330	482	350	230	90	53	124
Pump Equip Hydraulic	3	2,111	765	556	365	144	85	197
Pump Equip Other	3	29,985	10,864	7,892	5,187	2,039	1,202	2,801
Pump Equip WT	2		0	0	0	0	0	0
Pump Equip TD	6		0	0	0	0	0	0
WT Equip	2	488,546	205,238	147,101	96,195	38,009	586	1,417
WT Equip Other	2		0	0	0	0	0	0
Dist Reservoirs & Standpipe	5	169,825	43,441	36,258	14,011	3,159	21,907	51,049
TD Mains Not Classified by	6		0	0	0	0	0	0
TD Mains less than 10-Inch	4	449,180	181,469	151,508	14,913	0	30,409	70,881
TD Mains 10-Inch and Greater	3	232,739	84,321	61,257	40,264	15,826	9,333	21,738
Fire Mains	7	1,928	0	0	0	0	0	1,928
Services	9	457,400	322,467	82,469	2,424	549	49,491	0
Meters	8	254,848	202,018	49,186	2,625	1,019	0	0
Meter Installations	8	116,807	92,593	22,544	1,203	467	0	0
Hydrants	7	59,809	0	0	0	0	0	59,809
Other Transmission & Distribution Plant	6	279	111	91	15	3	18	41
Other P/E SS	2		0	0	0	0	0	0
Office Furniture & Equip	14	8,067	4,571	1,689	599	220	222	766
Comp & Periph Equip	14	193,193	109,482	40,455	14,335	5,274	5,313	18,334
Computer Software	14	112,094	63,524	23,472	8,317	3,060	3,083	10,638
Computer Hardware and Software	14	1,517	860	318	113	41	42	144
BST Initial Investment	14	537,571	304,641	112,567	39,888	14,676	14,783	51,015
BST Initial Investment - CIS	12		0	0	0	0	0	0
Other Office Equipment	14	31,654	17,938	6,628	2,349	864	870	3,004
Trans Equip Lt Duty Trks	14	23,645	13,400	4,951	1,754	646	650	2,244
Trans Equip Other	14	6,835	3,873	1,431	507	187	188	649

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Stores Equipment	14	1,288	730	270	96	35	35	122
Tools,Shop,Garage Equip	14	49,815	28,230	10,431	3,696	1,360	1,370	4,727
Laboratory Equipment	2	8,814	3,703	2,654	1,735	686	11	26
Power Operated Equipment	14	9,972	5,651	2,088	740	272	274	946
Comm Equip Non-Telephone	14	44,587	25,267	9,336	3,308	1,217	1,226	4,231
Comm Equip Telephone	14	3,817	2,163	799	283	104	105	362
Misc Equipment	14	18,587	10,533	3,892	1,379	507	511	1,764
Other Tangible Property	17	135	62	36	15	5	5	12
Total Depreciation Expense		4,458,940	2,225,691	1,103,055	455,636	168,525	157,034	348,999

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Amort-Other UP	18	17,982	8,322	4,767	1,985	723	635	1,550
Amort-UPAA	2		0	0	0	0	0	0
Amort-Property Losses	2	23,992	10,079	7,224	4,724	1,867	29	70
Taxes Other Than Income								
Utility Reg Assessment Fee	19	363,962	195,994	83,129	35,013	12,957	9,463	27,406
Property Taxes	18	1,116,014	516,491	295,855	123,208	44,864	39,395	96,200
Payroll Taxes	16	198,628	107,974	44,890	16,864	6,217	5,542	17,142
Other Taxes & Licenses	14	5,656	3,205	1,184	420	154	156	537
Gross Receipts Tax	19		0	0	0	0	0	0
Total Taxes, Other Than Income		1,684,260	823,664	425,059	175,504	64,192	54,556	141,285
Income Taxes	18	3,835,548	1,775,092	1,016,804	423,444	154,189	135,395	330,624
Utility Income Available for Return	18	8,817,673	4,080,819	2,337,565	973,471	354,470	311,264	760,083
Total Cost of Service		32,379,857	16,392,537	7,902,156	3,310,705	1,215,907	970,755	2,587,797
Less: Other Water Revenues	19	421,214	226,824	96,205	40,521	14,995	10,952	31,717
Contract Sales	19	1,183,559	637,347	270,325	113,858	42,135	30,773	89,122
Total Other Water Revenues		1,604,773	864,170	366,530	154,379	57,130	41,724	120,839
Total Cost of Service Related to Sales of Water		$ 30,775,084	$ 15,528,367	$ 7,535,626	$ 3,156,326	$ 1,158,777	$ 929,031	$ 2,466,957
Reallocation of Public Fire	20	0	1,963,451	478,096	25,410	0	0	(2,466,957)
Total		$ 30,775,084	$ 17,491,818	$ 8,013,722	$ 3,181,736	$ 1,158,777	$ 929,031	$ -

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection	
							Private	Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Rate Base								
Organization	17	$ 45,919	$ 21,187	$ 12,205	$ 5,088	$ 1,851	$ 1,626	$ 3,963
Franchises	17	30,020	13,851	7,979	3,326	1,210	1,063	2,591
Land & Ld Rights SS	2	202,591	85,108	61,000	39,890	15,762	243	588
Land & Ld Rights P	3	73,984	26,804	19,473	12,799	5,031	2,967	6,910
Land & Ld Rights WT	2	359,167	150,886	108,145	70,720	27,943	431	1,042
Land & Ld Rights TD	6	201,974	80,285	65,763	11,129	2,161	12,805	29,832
Land & Land Rights AG	14	371,570	210,569	77,807	27,570	10,144	10,218	35,262
Struct & Imp SS	2	4,647,557	1,952,439	1,399,379	915,104	361,580	5,577	13,478
Struct & Imp P	3	1,532,203	555,117	403,276	265,071	104,190	61,441	143,108
Struct & Imp WT	2	14,025,669	5,892,184	4,223,129	2,761,654	1,091,197	16,831	40,674
Struct & Imp TD	6	719,332	285,934	234,214	39,635	7,697	45,606	106,245
Struct & Imp AG	14		0	0	0	0	0	0
Struct & Imp Offices	14	663,623	376,075	138,963	49,241	18,117	18,250	62,978
Gen Structures HVAC	14	0	0	0	0	0	0	0
Struct & Imp Leasehold	14	10,148	5,751	2,125	753	277	279	963
Struct & Imp Store,Shop,Gar	14	2,934,736	1,663,115	614,534	217,757	80,118	80,705	278,506
Struct & Imp Misc	14	(37,375)	(21,180)	(7,826)	(2,773)	(1,020)	(1,028)	(3,547)
Collect & Impounding	1	20,512	7,751	6,469	4,476	1,670	43	103
Lake, River & Other Intakes	2	548,626	230,478	165,191	108,024	42,683	658	1,591
Wells & Springs	2	4,339,901	1,823,192	1,306,744	854,527	337,644	5,208	12,586
Infiltration Galleries & Tunnels	2	0	0	0	0	0	0	0
Supply Mains	2	3,462,155	1,454,451	1,042,455	681,698	269,356	4,155	10,040
Power Generation Equip	2	655,509	275,379	197,374	129,070	50,999	787	1,901
Boiler Plant Equipment P	3		0	0	0	0	0	0
Pump Equip Steam	3	289,189	104,773	76,115	50,030	19,665	11,596	27,010
Pump Equip Electric	3	4,754,771	1,722,654	1,251,456	822,575	323,324	190,666	444,096
Pump Equip Diesel	3	77,799	28,187	20,477	13,459	5,290	3,120	7,266
Pump Equip Hydraulic	3	85,555	30,997	22,518	14,801	5,818	3,431	7,991
Pump Equip Other	3	1,329,804	481,788	350,004	230,056	90,427	53,325	124,204
Pump Equip WT	2		0	0	0	0	0	0
Pump Equip TD	6		0	0	0	0	0	0
WT Equip	2	17,377,835	7,300,428	5,232,466	3,421,696	1,351,996	20,853	50,396
WT Equip Other	2	6,322	2,656	1,904	1,245	492	8	18
Dist Reservoirs & Standpipe	5	6,362,473	1,627,521	1,358,388	524,904	118,342	820,759	1,912,559
TD Mains Not Classified by	6		0	0	0	0	0	0
TD Mains less than 10-Inch	4	25,788,055	10,418,374	8,698,311	856,163	0	1,745,851	4,069,355
TD Mains 10-Inch and Greater	3	13,361,869	4,841,005	3,516,844	2,311,603	908,607	535,811	1,247,999
Fire Mains	7	82,836	0	0	0	0	0	82,836

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Services	9	9,207,564	6,491,333	1,660,124	48,800	11,049	996,258	0
Meters	8	10,407,931	8,250,367	2,008,731	107,202	41,632	0	0
Meter Installations	8	2,946,317	2,335,545	568,639	30,347	11,785	0	0
Hydrants	7	2,469,972	0	0	0	0	0	2,469,972
Other T&D Plant	6	5,793	2,303	1,886	319	62	367	856
Misc Intangible Plant Studies	17	233,069	107,538	61,950	25,824	9,393	8,251	20,114
Other P/E SS	2	0	0	0	0	0	0	0
Office Furniture & Equip	14	4,549	2,578	952	338	124	125	432
Comp & Periph Equip	14	495,529	280,816	103,764	36,768	13,528	13,627	47,026
Computer Software	14	1,458,754	826,676	305,463	108,240	39,824	40,116	138,436
Computer Hardware and Software	14	6,938	3,932	1,453	515	189	191	658
BST Intial Investment - CIS	12	853,630	746,755	88,948	1,110	171	16,646	0
BTS Initial Investment	14	1,694,519	960,284	354,832	125,733	46,260	46,599	160,810
Other Office Equipment	14	30,885	17,503	6,467	2,292	843	849	2,931
Trans Equip Lt Duty Trks	14	680,358	385,559	142,467	50,483	18,574	18,710	64,566
Trans Equip Hvy Duty Trks	14	(6,427)	(3,642)	(1,346)	(477)	(175)	(177)	(610)
Trans Equip Autos	14	(120,090)	(68,055)	(25,147)	(8,911)	(3,278)	(3,302)	(11,396)
Trans Equip Other	14	91,982	52,126	19,261	6,825	2,511	2,529	8,729
Stores Equipment	14	18,133	10,276	3,797	1,345	495	499	1,721
Tools,Shop,Garage Equip	14	875,819	496,326	183,396	64,986	23,910	24,085	83,115
Laboratory Equipment	2	154,439	64,880	46,502	30,409	12,015	185	448
Power Operated Equipment	14	(11,278)	(6,391)	(2,362)	(837)	(308)	(310)	(1,070)
Comm Equip Non-Telephone	14	493,238	279,518	103,284	36,598	13,465	13,564	46,808
Comm Equip Telephone	14	(13,356)	(7,569)	(2,797)	(991)	(365)	(367)	(1,267)
Misc Equipment	14	220,745	125,096	46,224	16,379	6,026	6,070	20,949
Other Tangible Property	17	2,279	1,052	606	253	92	81	197
Total Utility Plant in Service		136,525,621	63,002,565	36,283,977	15,124,842	5,500,391	4,837,881	11,775,965

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3
COST OF SERVICE FOR THE TWELVE MONTHS ENDED MAY 31, 2019 ALLOCATED TO CUSTOMER CLASSIFICATIONS

Account	Factor Ref.	Cost of Service	Residential	Non Residential	Rate J	Sales for Resale	Fire Protection Private	Fire Protection Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Other Rate Base Items								
Add:								
Cash Working Capital	15	620,300	342,220	137,769	58,432	21,586	14,267	46,026
Materials and Supplies	14	554,242	314,089	116,058	41,125	15,131	15,242	52,598
Prepayments	14	0	0	0	0	0	0	0
Pension / OPEB Tracker	16	784,265	426,326	177,244	66,584	24,547	21,881	67,682
Tank Painting Tracker	5	28,519	7,295	6,089	2,353	530	3,679	8,573
Regulatory Deferrals	19	318,933	171,745	72,844	30,681	11,354	8,292	24,016
Less:								
Accumulated Deferred ITC (3%)	17	(106)	(49)	(28)	(12)	(4)	(4)	(9)
Deferred Income Taxes	17	(28,901,820)	(13,335,300)	(7,682,104)	(3,202,322)	(1,164,743)	(1,023,124)	(2,494,227)
Pensions	16	(665,107)	(361,552)	(150,314)	(56,468)	(20,818)	(18,556)	(57,399)
Total Other Rate Base Elements		(27,260,774)	(12,435,225)	(7,322,442)	(3,059,626)	(1,112,416)	(978,324)	(2,352,741)
Total Original Cost Measure of Value		$ 109,264,847	$ 50,567,340	$ 28,961,535	$ 12,065,216	$ 4,387,975	$ 3,859,557	$ 9,423,224

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED.

Factors are based on the pro forma test year average daily consumption for each customer classification.

Customer Classification	Average Daily Consumption, 100 Gallons	Allocation Factor
(1)	(2)	(3)
Residential	45,151	0.3779
Non-Residential	37,691	0.3154
Rate J	26,078	0.2182
Sales for Resale	9,731	0.0814
Private Fire	257	0.0021
Public Fire	598	0.0050
Total	119,506	1.0000

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors

Customer Classification	Average Daily Consumption		Maximum Day Extra Capacity		Allocation Factor
	Allocation Factor 1	Weighted Factor	Allocation Factor	Weighted Factor	
(1)	(2)	(3)=(2)x	(4)	(5)=(4)x	(6)=(3)+(5)
		0.5882		0.4118	
Residential	0.3779	0.2224	0.4803	0.1977	0.4201
Non-Residential	0.3154	0.1855	0.2807	0.1156	0.3011
Rate J	0.2182	0.1283	0.1665	0.0686	0.1969
Sales for Resale	0.0814	0.0479	0.0725	0.0299	0.0778
Private Fire	0.0021	0.0012			0.0012
Public Fire	0.0050	0.0029			0.0029
Total	1.0000	0.5882	1.0000	0.4118	1.0000

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.

		Maximum Day Extra Capacity		
Customer Classification	Average Daily Consumption, 100 Gal.	Factor*	Rate of Flow, Thousand Gal. Per Day	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	45,151	1.0	45,151	0.4803
Non-Residential	37,691	0.7	26,384	0.2807
Rate J	26,078	0.6	15,647	0.1665
Sales for Resale	9,731	0.7	6,812	0.0725
	118,651		93,994	1.0000

The weighting of the factors is based on the maximum day ratio of 2.00, based on a review of maximum day ratios experienced during the period 1999 through 2016 ee Schedule D).

	Maximum Day Ratio	Weight
Average Day	1.00	0.5882
Maximum Day Extra Capacity	0.70	0.4118
Total	1.70	1.0000

* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Daily Consumption		Maximum Day Extra Capacity		Fire Protection		
Customer Classification	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2) X 0.5440	(4)	(5)=(4) X 0.3263	(6)	(7)=(6) X 0.1297	(8)=(3)+(5)+(7)
Residential	0.3779	0.2056	0.4803	0.1567			0.3623
Non-Residential	0.3154	0.1716	0.2807	0.0916			0.2632
Rate J	0.2182	0.1187	0.1665	0.0543			0.1730
Sales for Resale	0.0814	0.0443	0.0725	0.0237			0.0680
Private Fire	0.0021	0.0011			0.3003	0.0390	0.0401
Public Fire	0.0050	0.0027			0.6997	0.0907	0.0934
Total	1.0000	0.5440	1.0000	0.3263	1.0000	0.1297	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	100 Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.3110	(5)	(6)=(5) X 0.4665	(7)	(8)=(7) X 0.2225	(9)=(4)+(6)+(8)
Residential	1,881.3	0.5018	0.1560	0.5316	0.2480			0.4040
Non-Residential	1,570.5	0.4190	0.1303	0.4438	0.2070			0.3373
Rate J	261.2	0.0697	0.0217	0.0246	0.0115			0.0332
Sales for Resale	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire	10.7	0.0029	0.0009			0.3003	0.0668	0.0677
Public Fire	24.9	0.0066	0.0021			0.6997	0.1557	0.1578
Total	3,748.6	1.0000	0.3110	1.0000	0.4665	1.0000	0.2225	1.0000

The maximum hour extra capacity factors in column 5 are determined as follows:

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.70 and the average daily system sendout for 2016 of 17.1 MGD. The system demand for fire protection is 8,500 Gallons per minute for 8 hours.

	Ratio	Rate of Flow, (GPD)	Weight
Average Day	1.00	17,105,279	0.5440
Maximum Day Extra Capacity	0.60	10,263,168	0.3263
Subtotal	1.60	27,368,447	0.8703
Fire Protection		4,080,000	0.1297
Total		31,448,447	1.0000

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.5 and the average daily system sendout for 2016 of 17.1 MGD. The system demand for fire protection is 8,500 gallons per minute.

	Ratio	Rate of Flow, (GPM)	Weight
Average Hour	1.00	11,879	0.3110
Maximum Hour Extra Capacity	1.50	17,819	0.4665
Subtotal	2.50	29,698	0.7775
Fire Protection		8,500	0.2225
Total		38,198	1.0000

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity		
		Factor*	1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	1,881.3	3.0	5,643.9	0.5316
Non-Residential	1,570.5	3.0	4,711.5	0.4438
Rate J	261.2	1.0	261.2	0.0246
Total	3,713.0		10,616.6	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		
Customer Classification	100 Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor
(1)	(2)	(3)	(4)=(3) X 0.2288	(5)	(6)=(5) X 0.3432	(7)	(8)=(7) X 0.4280	(9)=(4)+(6)+(8)
Residential	1,881.3	0.3779	0.0865	0.4932	0.1693			0.2558
Non-Residential	1,570.5	0.3154	0.0722	0.4118	0.1413			0.2135
Rate J	1,086.6	0.2182	0.0499	0.0950	0.0326			0.0825
Sales for Resale	405.5	0.0814	0.0186	0.0000	0.0000			0.0186
Private Fire	10.7	0.0021	0.0005			0.3003	0.1285	0.1290
Public Fire	24.9	0.0050	0.0011			0.6997	0.2995	0.3006
Total	4,979.5	1.0000	0.2288	1.0000	0.3432	1.0000	0.4280	1.0000

The weighting of the factors is based on the ratio of the capacity required for a 10 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.

The weighting of the factors is based on the ratio of the capacity required for a 8 hour demand of fire flow, as related to total storage capacity.

Fire Protection Weight = $\frac{8{,}500 \text{ GPM X } 60 \text{ Min. X } 8 \text{ Hrs.}}{9{,}533{,}000 \text{ Gallons}}$ = 0.4280

General Service Weight = 1.0000 - 0.4280 = 0.5720

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

	Maximum Hour Ratio	Percent	Weight
Average Hour	1.00	40.00	0.2288
Extra Capacity Maximum Hour	1.50	60.00	0.3432
Total	2.50	100.00	0.5720

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity Factor*	1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	1,881.3	3.0	5,643.9	0.4932
Non-Residential	1,570.5	3.0	4,711.5	0.4118
Rate J	1,086.6	1.0	1,086.6	0.0950
Sales for Resale	405.5	0.0	0.0	0.0000
	4,943.9		11,442.0	1.0000

* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

	Maximum Daily Consumption w/ Fire		Maximum Hourly Consumption		
Customer Classification	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	Allocation Factor
(1)	(2)	(3)=(2)X 0.1567	(4)	(5)=(4)X 0.8433	(6)=(3)+(5)
Residential	0.3623	0.0568	0.4040	0.3407	0.3975
Non-Residential	0.2632	0.0412	0.3373	0.2844	0.3256
Rate J	0.1730	0.0271	0.0332	0.0280	0.0551
Sales for Resale	0.0680	0.0107	0.0000	0.0000	0.0107
Private Fire	0.0401	0.0063	0.0677	0.0571	0.0634
Public Fire	0.0934	0.0146	0.1578	0.1331	0.1477
Total	1.0000	0.1567	1.0000	0.8433	1.0000

The weighting of the factors is based on the total footage of mains, designated as either transmission mains or distribution mains, as follows:

	Total Footage of Mains	Weight
Transmission Mains	612,659	0.1567
Distribution Mains	3,296,739	0.8433
Total	3,909,399	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.

Costs are assigned directly to Rate E.

Customer Classification	Allocation Factor
(1)	(3)
Public Fire	1.0000
Total	1.0000

FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH METERS.

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

Customer Classification	5/8" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	36,835	0.7927
Non-Residential	8,969	0.1930
Rate J	479	0.0103
Sales for Resale	188	0.0040
Private Fire	0	0.0000
Public Fire	0	0.0000
Total	46,471	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

Customer Classification	3/4" Dollar Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	39,182	0.7050
Non-Residential	10,023	0.1803
Rate J	294	0.0053
Sales for Resale	66	0.0012
Private Fire	6,012	0.1082
Total	55,577	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

	5/8"	Residential		Non-Residential		Rate J		Sales for Resale		Private Fire		Total	
Meter Size	Dollar Equivalent	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)
5/8	1.0	31,717	31,717	2,312	2,312	11	11	0	0		0	34,040	34,040
3/4	2.1	10	21	14	29	0	0	0	0		0	24	50
1	2.0	2,449	4,898	789	1,578	1	2	1	2		0	3,240	6,480
1-1/2	3.5	4	14	60	210	0	0	0	0		0	64	224
2	4.3	43	185	812	3,492	19	82	3	13		0	877	3,772
3	7.0	0	0	13	91	2	14	0	0		0	15	105
4	10.5	0	0	61	641	7	74	1	11		0	69	726
6	16.8	0	0	10	168	10	168	2	34		0	22	370
8	64.0	0	0	7	448	2	128	2	128		0	11	704
10	64.0	0	0	0	0	0	0	0	0		0	0	0
12	64.0	0	0	0	0	0	0	0	0		0	0	0
Total		34,223	36,835	4,078	8,969	52	479	9	188	0	0	38,362	46,471

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

	3/4"	Residential		Non-Residential		Rate J		Sales for Resale		Private Fire		Total	
Service Size	Dollar Equivalent	Number of Services	Weighting	Number of Services	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)
3/4	1.00	31,727	31,727	2,326	2,326	11	11	0	0	0	0	34,053	34,053
1	2.94	2,449	7,200	789	2,320	1	3	1	3	0	0	3,239	9,523
1-1/2	4.02	4	16	60	241	0	0	0	0	0	0	64	257
2	5.55	43	239	812	4,507	19	105	3	17	34	189	892	4,952
3	5.55	0	0	13	72	2	11	0	0	0	0	13	72
4	6.37	0	0	61	389	7	45	1	6	160	1,019	222	1,414
6	9.92	0	0	10	99	10	99	2	20	296	2,936	308	3,055
8	9.92	0	0	7	69	2	20	2	20	173	1,716	182	1,805
10	9.92	0	0	0	0	0	0	0	0	8	79	8	79
12 and above	12.16	0	0	0	0	0	0	0	0	6	73	6	73
Total		34,223	39,182	4,078	10,023	52	294	9	66	677	6,012	38,987	55,283

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 10. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION AND ENGINEERING AND MISCELLANEOUS EXPENSES.

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Operating Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 186,616	0.5557
Non-Residential	89,301	0.2659
Rate J	11,698	0.0348
Sales for Resale	2,468	0.0073
Private Fire	17,719	0.0528
Public Fire	28,031	0.0835
Total	335,832	1.0000

FACTOR 11. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION AND ENGINEERING, STRUCTURES AND IMPROVEMENTS, AND OTHER EXPENSES.

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	$ 65,391	0.4318
Non-Residential	27,748	0.1832
Rate J	3,182	0.0210
Sales for Resale	663	0.0044
Private Fire	7,870	0.0520
Public Fire	46,586	0.3076
Total	$151,440	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 12. ALLOCATION OF BILLING AND COLLECTING COSTS.

Factors are based on the total number of customers

Customer Classification	Total Customers	Allocation Factor
(1)	(2)	(3)
Residential	34,223	0.8748
Non-Residential	4,078	0.1042
Rate J	52	0.0013
Sales for Resale	9	0.0002
Private Fire	764	0.0195
Public Fire	0	0.0000
Total	39,126	1.0000

FACTOR 13. ALLOCATION OF METER READING COSTS.

Factors are based on the number of metered bills.

Customer Classification	Total Metered Customers	Allocation Factor
(1)	(2)	(3)
Residential	34,223	0.8921
Non-Residential	4,078	0.1063
Rate J	52	0.0014
Sales for Resale	9	0.0002
Private Fire	0	0.0000
	38,362	1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASS

FACTOR 14. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES

Factors are based on the allocation of all other operation and maintenance exper water, power, chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses
(1)	(2)
Residential	$1,896,462
Non-Residential	700,873
Rate J	248,267
Sales for Resale	91,459
Rate F - Private Fire	92,162
Public Fire	317,775
Total	$3,346,998

FACTOR 15. ALLOCATION OF CASH WORKING CAPITAL

Factors are based on the allocation operation and maintenance expenses eINcludinc chemicals and waste disposal.

Customer Classification	Operation & Maintenance Expenses
(1)	(2)
Residential	$7,431,960
Non-Residential	2,992,027
Rate J	1,269,347
Sales for Resale	469,500
Rate F - Private Fire	310,061
Public Fire	1,000,024
Total	$13,472,919

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASS

FACTOR 16. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense
(1)	(2)
Residential	$1,437,922
Non-Residential	597,796
Rate J	224,495
Sales for Resale	82,857
Private Fire	73,834
Public Fire	228,299
Total	$2,645,203

FACTOR 17. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS MISCELLANEOUS INTANGIBLE PLANT AND OTHER Rate Base ELEMENTS.

Factors are based on the allocation of the original cost less depreciation other allocated, as follows:

Customer Classification	Original Cost Less Depreciation
(1)	(2)
Residential	$62,858,937
Non-Residential	36,201,237
Rate J	15,090,351
Sales for Resale	5,487,846
Private Fire	4,826,861
Public Fire	11,749,100
Total	$136,214,334

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASS

FACTOR 18. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR F

Factors are based on the allocation of the original cost measure of value Rate Base pages and summarized below.

Customer Classification	Original Cost Measure of Value
(1)	(2)
Residential	$50,567,340
Non-Residential	28,961,535
Rate J	12,065,216
Sales for Resale	4,387,975
Private Fire	3,859,557
Public Fire	9,423,224
Total	$109,264,847

FACTOR 19. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSES OTHER WATER REVENUES.

The factors are based on the allocation of the total cost of service, excluding those it

Customer Classification	Total Cost of Service
(1)	(2)
Residential	$9,778,909
Non-Residential	4,148,381
Rate J	1,746,990
Sales for Resale	646,264
Private Fire	472,821
Public Fire	1,366,771
Total	$18,160,135

MISSOURI-AMERICAN WATER COMPANY
ALL DISTRICTS

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASS

FACTOR 20. REALLOCATION OF PUBLIC FIRE

Factors are based on the relative cost of meters by size and customer classification.

Customer Classification	5/8" Dollar Equivalents
(1)	(2)
Residential	36,835
Non-Residential	8,969
Rate J	479
Sales for Resale	0
Private Fire	0
Total	46,283

·IFICATIONS, cont.

ıses excluding purchased

Allocation Factor
(3)
0.5667
0.2094
0.0742
0.0273
0.0275
0.0949
1.0000

ɡ purchased water, power,

Allocation Factor
(3)
0.5517
0.2221
0.0942
0.0348
0.0230
0.0742
1.0000

IFICATIONS, cont.

Allocation Factor (3)
0.5436
0.2260
0.0849
0.0313
0.0279
0.0863
1.0000

than those items being

Allocation Factor (3)
0.4614
0.2658
0.1108
0.0403
0.0354
0.0863
1.0000

IFICATIONS, cont.

RETURN.

as shown on the following

Allocation Factor (3)
0.4628
0.2651
0.1104
0.0402
0.0353
0.0862
1.0000

SSMENTS AND

ems being allocated.

Allocation Factor (3)
0.5385
0.2284
0.0962
0.0356
0.0260
0.0753
1.0000

IFICATIONS, cont.

Allocation Factor
(3)
0.7959
0.1938
0.0103
0.0000
0.0000
1.0000

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED MAY 31, 2019

Customer Classification	Cost of Service Amount (Schedule B)	Cost of Service Percent	Revenues, Present Rates Amount	Revenues, Present Rates Percent	Revenues, Proposed Rates Amount	Revenues, Proposed Rates Percent	Proposed Increase Amount	Proposed Increase Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 17,491,818	56.8%	$ 13,059,789	54.0%	$ 14,926,854	51.7%	$ 1,867,065	14.3%
Non-Residential	8,013,722	26.0%	6,695,531	27.7%	9,059,811	31.4%	2,364,280	35.3%
Rate J	3,181,736	10.3%	2,308,349	9.5%	2,943,430	10.2%	635,080	27.5%
Sales for Resale	1,158,777	3.8%	1,049,035	4.3%	1,154,098	4.0%	105,063	10.0%
Private Fire	929,031	3.0%	1,099,782	4.5%	783,089	2.7%	(316,693)	-28.8%
Total Sales	30,775,084	99.9%	24,212,487	100.0%	28,867,282	100.0%	4,654,795	19.2%
Other Revenues	421,214		352,832		421,214		68,382	19.4%
Contract Revenues	1,183,559		1,011,589		1,183,559		171,970	17.0%
Total	$ 32,379,857		$ 25,576,908		$ 30,472,055		$ 4,895,147	19.1%

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

SUMMARY OF AVERAGE DAILY SEND OUT AND MAXIMUM DAILY USAGE
FOR THE YEARS 2009-2016

Year	Average Daily Send out (MGD)	Maximum Daily Use	
		MGD	Ratio to Average
(1)	(2)	(3)	(4)
2009	14.683	21.970	1.50
2010	15.874	22.775	1.43
2011	15.500	25.142	1.62
2012	16.075	25.789	1.60
2013	15.662	22.230	1.42
2014	17.329	25.349	1.46
2015	16.817	23.508	1.40
2016	17.105	25.117	1.47

MISSOURI-AMERICAN WATER COMPANY
DISTRICT 3

BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS

Description		Restrictive Diameters Squared	Quantity	Relative Demand	Allocation Factor
(1)		(2)	(3)	(4)=(2)x(3)	(5)
PRIVATE FIRE PROTECTION					
Fire Lines					
2 -inch		4.00	34	136	
3 -inch		9.00	0	0	
4 -inch		16.00	160	2,560	
6 -inch		36.00	296	10,656	
8 -inch		64.00	173	11,072	
10 -inch		100.00	8	800	
12 -inch		144.00	6	864	
Private Hydrants		20.25	87	1,762	
Total Rate F			764	27,850	0.3003
PUBLIC FIRE PROTECTION					
Hydrant	Nozzle Sizes				
5 1/4 Valve	1- 2-1/2" & 1- 4 1/2"	26.50	1	27	
4 1/2" Valve	1- 2-1/2" & 1- 4 1/2"	20.25	3,203	64,861	
Total Rate E			3,204	64,887	0.6997
Total Fire Protection			3,968	92,737	1.0000

MISSOURI AMERICAN WATER COMPANY

CALCULATION OF THE 5/8-INCH CUSTOMER COSTS PER MONTH
INCLUDING THE UNRECOVERED PUBLIC FIRE COSTS

Cost Function	Cost of Service	Number of Units	Unit Cost Per Month
Meters	$ 2,790,301	46,471 5/8 Equivalents	$ 5.00
Services	2,324,553	49,565 3/4 Equivalents	3.91
Billing/Collecting	3,829,608	4,001,295 Bills	0.96
Subtotal	8,944,461		9.87
Unrecovered Public Fire	2,466,957	46,471 5/8 Equivalents	4.42
Total	$ 11,411,418		$ 14.29

Schedule CEH-13

MISSOURI-AMERICAN WATER COMPANY
ALL WATER DISTRICTS

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED MAY 31, 2019

Customer Classification	Cost of Service Amount (Schedule B)	Cost of Service Percent	Revenues, Present Rates Amount	Revenues, Present Rates Percent	Revenues, Proposed Rates Amount	Revenues, Proposed Rates Percent	Proposed Increase Amount	Proposed Increase Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 236,395,249	71.5%	$ 177,161,196	67.7%	$ 228,268,784	69.1%	$ 51,107,588	28.8%
Non-Residential	66,269,449	20.1%	57,675,916	22.0%	72,556,306	22.0%	14,880,390	25.8%
Rate J	16,805,964	5.1%	15,173,474	5.8%	17,129,295	5.1%	1,955,821	12.9%
Sales for Resale	6,690,517	2.0%	6,865,390	2.6%	7,536,421	2.3%	671,031	9.8%
Private Fire	4,309,594	1.3%	5,000,939	1.9%	4,979,352	1.5%	(21,587)	-0.4%
Total Sales	330,470,772	100.0%	261,876,916	100.0%	330,470,159	100.0%	68,593,243	26.2%
Other Revenues	4,154,107		3,420,164		4,154,107		733,943	21.5%
Contract Revenues	5,041,716		5,022,927		5,041,716		18,789	0.4%
Total	$ 339,666,595 *		$ 270,320,007		$ 339,665,982		$ 69,345,975	25.7%

* Includes Hickory Hill Sewer Transfer.

Schedule CEH-14

MISSOURI-AMERICAN WATER COMPANY
ALL WASTEWATER DISTRICTS

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED MAY 31, 2019

Customer Classification	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
All Classes	$ 9,256,448	100.0%	$ 9,522,204	100.0%	$ 9,256,339	100.0%	$ (265,865)	-2.8%
Total Sales	9,256,448	100.0%	9,522,204	100.0%	9,256,339	100.0%	(265,865)	-2.8%
Other Revenues	16,164		$ 1,193		16,164		14,971	
Subtotal	$ 9,272,612		$ 9,523,397		$ 9,272,503		$ (250,894)	
Hickory Hills Water Transfer	79,472		-		79,472		79,472	
Total	$ 9,352,084		$ 9,523,397		$ 9,351,975		$ (171,422)	-1.8%

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Water Division

Missouri Public Service Commission
Company: Missouri-American Water Company
Water Division

Case No. WR-2017-0285
Schedule CAS-11-12
Page 1 of 1

Line #	Class/ Description	Base Year 12/31/2016 Normalized		Present Pro Forma Rates FYE 05/31/2018		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2											
3											
4	Residential	309,335,414	$179,900,152	303,526,821	$177,822,446	301,269,195	$176,918,215	301,269,195	$228,020,578	$51,102,363	28.88%
5	Commercial	111,414,644	53,874,190	111,433,096	52,429,602	111,433,096	52,430,126	111,433,096	65,930,210	13,500,084	25.75%
6	Industrial	75,774,530	18,319,261	75,774,530	16,071,969	75,774,530	16,101,627	75,774,530	18,217,724	2,116,097	13.14%
7	Other Public Authority	11,197,591	5,494,946	11,197,591	5,409,857	11,197,591	5,410,391	11,197,591	6,649,210	1,238,819	22.90%
8	Other Water Utilities	51,692,557	10,472,669	51,116,554	10,408,083	51,116,554	10,435,866	51,116,554	11,106,897	671,031	6.43%
9	Private Fire	436,605	4,826,222	436,605	4,950,201	436,605	5,000,939	436,605	4,979,352	(21,587)	-0.43%
10	Public Fire		0		0		0		0	0	0.00%
11	Miscellaneous		359,698		359,698		359,698		359,698	0	0.00%
12											
13	Flat Rate										
14	Anna Meadows		55,487		55,487		55,487		79,080	23,593	42.52%
15	Jasson Estate		27,596		33,731		33,731		40,814	7,083	21.00%
16	Rankin Acres		59,655		59,655		59,655		49,806	(9,879)	-16.55%
17	Whitebranch		94,078		94,078		94,078		78,506	(15,572)	-16.55%
18											
19	Total	559,851,341	$273,484,333	553,485,196	$267,704,837	551,227,570	$266,899,843	551,227,570	$335,511,875	$68,612,032	25.71%
20											
21	**Miscellaneous Revenues:**										
22											
23	Reconnect Charges		782,017		672,717		672,717		546,467	546,467	81.23%
24	Returned Check Charge		82,934		88,272		88,272		88,272	88,272	100.00%
25	Application Fee		1,550,309		1,487,498		1,487,498		1,572,058	1,572,058	105.68%
26	Miscellaneous Other Revenue		751,231		667,020		667,020		1,442,654	1,442,654	216.28%
27	Rents from Water Property		811,650		593,938		504,657		504,657	504,657	100.00%
28											
29											
30			$277,462,536		$271,214,282		$270,320,007		$339,665,982	$72,765,139	26.92%
31											
32											
33											
34											
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36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division

Missouri Public Service Commission
Company: Missouri-American Water Company
Sewer Division

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized		Present Pro Forma Rates FYE 05/31/18		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	5,455,263	$6,749,187	5,657,115	$7,153,994	5,657,115	$7,165,168	5,657,115	$6,892,662	($292,506)	-4.07%
5	Commercial	3,367,085	2,333,253	3,184,495	2,320,589	3,184,495	2,322,580	3,184,495	2,349,221	26,641	1.15%
6	Industrial	0	0	0	0	0	0	0	0	0	0.00%
7	Other Public Authority	32,654	18,953	32,654	14,455	32,654	14,455	32,654	14,456	0	0.00%
8	Other Water Utilities	0	0	0	0	0	0	0	0	0	0.00%
9	Miscellaneous		458		0		0		0	0	0.00%
10											
11											
12	Total	8,875,002	$9,101,851	8,874,265	$9,489,039	8,874,265	$9,522,204	8,874,265	$9,256,339	($265,865)	-2.79%
13											
14											
15											
16											
17	**Miscellaneous Revenues:**										
18											
19	Reconnect Charges		$0		$0		$0		$0	$0	0.00%
20	Returned Check Charge		736		$975		975		684	(291)	-29.85%
21	Application Fee		0		$0		0		0	0	0.00%
22	Miscellaneous Other Revenue		1,034		$98		218		15,450	15,262	6996.66%
23	Rents from Water Property		0		$0		0		0	0	0.00%
24											
25											
26			$9,103,651		$9,490,112		$9,523,397		$9,272,503	($250,894)	-2.63%
27											
28											
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35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Acme Meadows, Redfield, Jaxson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
District #1 East Central

Case No. WR-2017-0285
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Line #	Class/ Description	Base Year 12/31/2016 Normalized		Present Pro Forma Rates FYE 05/31/18		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2											
3											
4	Residential	273,552,076	$151,626,217	268,554,674	$149,589,654	266,532,715	$143,844,571	266,532,715	$159,094,699	$50,250,128	33.78%
5	Commercial	89,603,786	42,383,825	89,603,786	41,164,009	89,603,786	41,164,007	89,603,786	52,895,096	11,731,089	28.50%
6	Industrial	40,228,723	7,696,381	40,228,723	7,537,069	40,228,723	7,537,069	40,228,723	9,020,157	1,483,088	19.68%
7	Other Public Authority	6,739,449	3,324,475	6,739,449	3,325,301	6,739,449	3,325,835	6,739,449	4,178,041	852,206	25.62%
8	Other Water Utilities	39,517,840	6,833,553	38,941,837	6,760,445	38,941,837	6,786,521	38,941,837	7,133,258	346,737	5.11%
9	Private Fire	433,944	2,878,743	433,944	2,905,214	433,944	2,915,515	433,944	3,492,466	576,951	19.79%
10	Public Fire	0	0	0	0	0	0	0	0	0	0.00%
11	Miscellaneous		344,332		344,332		344,332		344,332	0	0.00%
12	Acme Meadows Flat Rate		55,487		55,487		55,487		79,080	23,593	42.52%
13	Jaxson Estate Flat Rate		27,696		33,731		33,731		40,814	7,083	21.00%
14											
15	Total	450,075,819	$215,176,059	444,502,614	$211,715,291	442,480,455	$211,007,118	442,480,455	$276,277,993	$65,270,875	30.93%
16											
17											
18	**Miscellaneous Revenues:**										
19											
20	Reconnect Charges		$491,109		$456,737		$456,737		$411,250	($45,487)	-9.96%
21	Returned Check Charge		69,013		71,624		71,624		71,624	0	0.00%
22	Application Fee		1,155,336		1,122,155		1,122,155		1,137,133	14,978	1.33%
23	Miscellaneous Other Revenue		711,840		611,916		611,916		1,246,622	634,706	103.72%
24	Rents from Water Property		739,349		521,469		432,026		432,026	0	0.00%
25											
26											
27			$218,343,756		$214,499,191		$213,701,576		$279,576,648	$55,875,072	30.63%
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Anee Meadows, Redfield, Jasson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Residential

Case No. WR-2017-0285
Sched.Je CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Residential Monthly Billing:																		
3																			
4	Minimum Charge:																		
5	5/8"	501,876		$15.33	$7,693,764	518,883		$15.33	$7,954,570	524,894		$15.33	$8,046,619	2,164,620		$10.00	$21,646,155	$13,599,576	169.01%
6	3/4"	1,439		18.78	27,023	1,439		18.78	27,023	1,439		18.78	27,023	130,056		12.25	1,593,181	1,566,158	5795.85%
7	1"	21,422		25.41	544,337	21,422		25.41	544,337	21,422		25.41	544,337	57,902		16.55	960,018	415,681	76.35%
8	1-1/2"	1,541		42.03	64,762	1,541		42.03	64,762	1,541		42.03	64,762	3,347		27.42	91,773	27,011	41.71%
9	2"	1,271		61.58	78,747	1,271		61.58	78,747	1,271		61.58	78,747	6,591		40.43	266,470	187,723	238.39%
10	3"	65		109.00	7,127	65		109.00	7,127	65		109.00	7,127	151		71.10	10,741	3,614	50.71%
11	4"	60		174.93	10,496	60		174.93	10,496	60		174.93	10,496	141		114.11	16,119	5,623	53.57%
12	6"	72		341.05	24,556	72		341.05	24,556	72		341.05	24,556	174		222.47	38,696	14,140	57.58%
13	8"	100		581.84	57,911	100		581.84	57,911	100		581.84	57,911	221		379.54	83,756	25,845	44.63%
14	10"	12		977.61	11,731	12		977.61	11,731	12		977.61	11,731	18		637.71	11,421	(310)	-2.64%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16	Low Income	0		(12.26)	0	18,648		(12.26)	(228,627)	18,648		(12.26)	(228,627)	18,648		(8.00)	(149,183)	79,442	-34.75%
17	Anna Meadows	1,634		33.96	55,457	1,634		33.96	55,457	1,634		33.96	55,457	1,634		48	79,050	23,593	42.52%
18	Jasson Estate	700		40.00	27,995	843		40.00	33,731	843		40.00	33,731	843		48	40,614	7,083	21.00%
19					$5,603,937				$5,641,851				$5,733,900				$24,669,079	$15,955,179	182.68%
20																			
21																			
22	Volumetric Charges:																		
23	Monthly All Water		32,350,428	0.41358	$13,392,430		32,350,428	0.41358	$13,392,430		31,759,456	0.41358	$13,147,780		31,759,456	0.58176	$18,476,381	$5,328,601	40.53%
24																			
25	Normalization																		
26	Usage		0	0.41358	$0		(590,972)	0.41358	($244,651)		(239,142)	0.41358	($99,000)		(239,142)	0.58176	($139,123)	($40,123)	40.53%
27																			
28	Total		32,350,428		$21,999,367		31,759,456		$21,789,630		31,520,314		$21,782,650		31,520,314		$43,026,337	$21,243,657	97.53%
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Anne Meadows, Redfield, Jasson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Residential

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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential Quarterly Billing**																		
3																			
4	Minimum Charge:																		
5	5/8"	1,109,888		$22.35	$24,805,999	1,109,888		$22.35	$24,805,999	1,109,888		$22.35	$24,805,999	500,659		$30.00	$15,019,782	($9,786,217)	-39.45%
6	3/4"	87,057		27.67	2,408,875	87,057		27.67	2,408,875	87,057		27.67	2,408,875	39,271		36.75	1,443,197	($965,678)	-40.09%
7	1"	24,692		38.39	947,940	24,692		38.39	947,940	24,692		38.39	947,940	11,138		49.74	$54,028	($393,912)	-41.55%
8	1-1/2"	1,223		65.04	79,512	1,223		65.04	79,512	1,223		65.04	79,512	551		82.26	45,363	($34,149)	-42.95%
9	2"	3,601		97.03	349,427	3,601		97.03	349,427	3,601		97.03	349,427	1,624		121.29	197,093	($152,334)	-43.61%
10	3"	58		182.45	10,583	58		182.45	10,583	58		182.45	10,583	26		213.30	5,561	($5,002)	-47.28%
11	4"	55		278.53	15,319	55		278.53	15,319	55		278.53	15,319	25		342.33	8,493	($6,826)	-44.56%
12	6"	69		545.37	37,631	69		545.37	37,631	69		545.37	37,631	31		667.41	20,773	($16,858)	-44.80%
13	8"	82		865.59	70,978	82		865.59	70,978	82		865.59	70,978	37		1,138.62	42,117	($28,861)	-40.66%
14	10"	4		1,292.52	5,170	4		1,292.52	5,170	4		1,292.52	5,170	2		1,913.13	3,452	($1,718)	-33.23%
15	12"	0		1,551.03	0	0		1,551.03	0	0		1,551.03	0	0		2,255.75	0	$0	0.00%
16	5/8" - Prorated	62,943		16.09	$1,012,753	62,943		16.09	$1,012,753	62,943		16.09	$1,012,753	62,943		30.00	1,888,290	$875,537	86.45%
17	3/4" - Prorated	3,785		18.62	70,477	3,785		18.62	70,477	3,785		18.62	70,477	3,785		36.75	139,099	$68,622	97.37%
18	1" - Prorated	1,500		23.64	35,460	1,500		23.64	35,460	1,500		23.64	35,460	1,500		49.74	74,610	$39,150	110.41%
19	1-1/2" - Prorated	42		36.27	1,523	42		36.27	1,523	42		36.27	1,523	42		82.26	3,455	$1,932	126.85%
20	2" - Prorated	124		51.38	6,371	124		51.38	6,371	124		51.38	6,371	124		121.29	15,040	$8,669	135.07%
21	3" - Prorated	2		91.79	184	2		91.79	184	2		91.79	184	2		213.30	427	$243	132.07%
22	4" - Prorated	1		137.18	137	1		137.18	137	1		137.18	137	1		342.33	342	$205	149.64%
23	6" - Prorated	1		263.29	263	1		263.29	263	1		263.29	263	1		667.41	667	$404	153.61%
24	8" - Prorated	5		414.66	2,073	5		414.66	2,073	5		414.66	2,073	5		1,138.62	5,693	$3,620	174.63%
25	10" - Prorated	0		616.48	0	0		616.48	0	0		616.48	0	0		1,913.13	0	$0	0.00%
26	12" - Prorated	0		818.29	0	0		818.29	0	0		818.29	0	0		2,295.75	0	$0	0.00%
27					$29,860,675				$29,860,675				$29,860,675				$19,467,442	($10,393,233)	-34.81%
28																			
29	Volumetric Charges:																		
30	Quarterly All Water		241,201,648	0.41358	$99,852,658		241,201,648	0.41358	$99,852,658		238,795,418	0.41358	$98,028,567		235,795,418	0.58176	$137,758,102	$39,729,535	40.53%
31																			
32	Normalization																		
33	Usage		0	0.41358	$0		(4,406,230)	0.41358	($1,824,091)		(1,783,017)	0.41358	($738,133)		(1,783,017)	0.58176	($1,037,288)	($299,155)	40.53%
34																			
35	Total		241,201,648		$129,713,333		235,795,418		$127,889,242		235,012,400		$127,151,109		235,012,400		$156,188,256	$29,037,147	22.84%
36																			
37																			
38													$0						
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Acee Meadows, Redfield, Jasson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Commercial

Case No. WR-2017-0265
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial Monthly Billing**																		
3																			
4	Minimum Charge:																		
5	5/8"	13,542		$15.33	$207,599	13,542		$15.33	$207,599	13,542		$15.33	$207,599	55,492		$10.00	$554,921	$347,322	167.30%
6	3/4"	205		18.78	3,854	205		18.78	3,854	205		18.78	3,854	17,195		12.25	210,651	206,797	5365.78%
7	1"	4,928		25.41	125,227	4,928		25.41	125,227	4,928		25.41	125,227	16,371		16.55	271,423	146,196	116.74%
8	1-1/2"	1,611		42.03	67,701	1,611		42.03	67,701	1,611		42.03	67,701	6,872		27.42	188,433	120,732	178.33%
9	2"	5,390		61.98	334,073	5,390		61.98	334,073	5,390		61.98	334,073	20,438		40.43	826,290	492,217	147.34%
10	3"	1,016		109.00	110,733	1,016		109.00	110,733	1,016		109.00	110,733	1,924		71.10	136,819	26,085	23.55%
11	4"	1,000		174.93	174,885	1,000		174.93	174,885	1,000		174.93	174,885	1,463		114.11	169,203	(5,682)	-3.25%
12	6"	521		341.05	177,667	521		341.05	177,667	521		341.05	177,667	1,141		222.47	253,936	76,269	42.93%
13	8"	487		581.84	283,589	487		581.84	283,589	487		581.84	283,589	1,397		379.54	530,072	246,483	86.93%
14	10"	343		977.61	335,642	343		977.61	335,642	343		977.61	335,642	477		637.71	303,899	(31,743)	-9.46%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$1,820,970				$1,820,970				$1,820,970				$3,445,647	$1,624,677	89.22%
17																			
18	Volumetric Charges:																		
19	Rate A		32,328,217	0.41358	$13,363,235		32,328,217	0.41358	$13,363,235		27,308,061	0.41358	$11,304,991		27,308,061	0.54761	$14,954,167	$3,649,176	32.28%
20	Rate J		768,188	0.17000	130,592		768,188	0.17000	130,592		5,788,344	0.17000	984,018		5,788,344	0.21000	1,215,552	231,534	23.53%
21																			
22	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
23	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26																			
27	Normalization																		
28	Rate A		0	0.41358	$0		(5,020,156)	0.41358	($2,078,244)		0	0.41358	$0		0	1	$0	$0	0.00%
29	Rate J		0	0.17000	0		5,020,156	0.17000	853,427		0	0.17000	0		0	0	0	0	0.00%
30																			
31	Total		33,096,404		$15,334,797		33,096,404		$14,109,590		33,096,404		$14,109,979		33,096,404		$19,615,366	$5,505,387	39.02%
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Anne Meadows, Redfield, Jasson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Commercial

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial Quarterly Billing**																		
3																			
4	Minimum Charge:																		
5	5/8"	28,395		$22.35	$634,627	28,395		$22.35	$634,627	28,395		$22.35	$634,627	12,809		$30.00	$384,260	($250,367)	-39.45%
6	3/4"	11,501		27.67	318,223	11,501		27.67	318,223	11,501		27.67	318,223	5,188		36.75	190,653	($127,570)	-40.09%
7	1"	7,745		38.39	297,329	7,745		38.39	297,329	7,745		38.39	297,329	3,494		49.74	173,775	($123,554)	-41.55%
8	1-1/2"	3,561		65.04	231,624	3,561		65.04	231,624	3,561		65.04	231,624	1,606		82.26	132,146	($99,478)	-42.95%
9	2"	10,185		97.03	988,278	10,185		97.03	988,278	10,185		97.03	988,278	4,554		121.29	557,264	($431,014)	-43.61%
10	3"	615		182.45	112,193	615		182.45	112,193	615		182.45	112,193	277		213.30	59,163	($53,030)	-47.27%
11	4"	327		278.53	91,072	327		278.53	91,072	327		278.53	91,072	147		342.33	50,492	($40,580)	-44.55%
12	6"	420		545.37	229,055	420		545.37	229,055	420		545.37	229,055	189		657.41	126,445	($102,609)	-44.80%
13	8"	615		865.59	532,705	615		865.59	532,705	615		865.59	532,705	278		1,138.62	316,094	($216,611)	-40.66%
14	10"	90		1,292.52	116,550	90		1,292.52	116,550	90		1,292.52	116,550	41		1,913.13	77,818	($38,732)	-33.23%
15	12"	0		1,551.03	0	0		1,551.03	0	0		1,551.03	0	0		2,295.75	0	0	0.00%
16	5/8" - Prorated	1,453		16.09	$23,379	1,453		16.09	$23,379	1,453		16.09	$23,379	1,453		30.00	43,590	20,211	86.45%
17	3/4" - Prorated	433		18.62	8,062	433		18.62	8,062	433		18.62	8,062	433		36.75	15,913	7,851	97.38%
18	1" - Prorated	291		23.64	6,879	291		23.64	6,879	291		23.64	6,879	291		49.74	14,474	7,595	110.41%
19	1-1/2" - Prorated	138		36.27	5,005	138		36.27	5,005	138		36.27	5,005	138		82.26	11,352	6,347	126.81%
20	2" - Prorated	333		51.38	17,110	333		51.38	17,110	333		51.38	17,110	333		121.29	40,390	23,280	136.06%
21	3" - Prorated	16		91.79	1,469	16		91.79	1,469	16		91.79	1,469	16		213.30	3,413	1,944	132.33%
22	4" - Prorated	14		137.18	1,921	14		137.18	1,921	14		137.18	1,921	14		342.33	4,793	2,872	149.51%
23	6" - Prorated	23		263.29	6,056	23		263.29	6,056	23		263.29	6,056	23		667.41	15,350	9,294	153.47%
24	8" - Prorated	30		414.66	12,440	30		414.66	12,440	30		414.66	12,440	30		1,138.62	34,159	21,719	174.59%
25	10" - Prorated	44		616.48	27,125	44		616.48	27,125	44		616.48	27,125	44		1,913.13	84,178	57,053	210.33%
26	12" - Prorated	0		818.29	0	0		818.29	0	0		818.29	0	0		2,295.75	0	0	0.00%
27					$3,661,102				$3,661,102				$3,661,102				$2,335,723	($1,325,379)	-36.20%
28																			
29	Volumetric Charges:																		
30	Rate A		56,507,382	0.41398	$23,392,926		56,507,382	0.41398	$23,392,926		56,507,382	0.41398	$23,392,926		56,507,382	0.54761	$30,944,007	$7,551,081	32.28%
31																			
32	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
33	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
34	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
35	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
36																			
37	Normalization																		
38	Usage		0	0.41398	$0		0	0.41398	$0		0	0.41398	$0		0	0.54761	$0	$0	0.00%
39																			
40	Total		56,507,382		$27,054,028		56,507,382		$27,054,028		56,507,382		$27,054,028		56,507,382		$33,279,730	$6,225,702	23.01%

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Acme Meadows, Redfield, Jackson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Industrial

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Industrial Monthly Billing																		
3																			
4	Minimum Charge:																		
5	5/8"	85		$15.33	$1,295	85		$15.33	$1,296	85		$15.33	$1,296	85		$10.00	$846	($450)	-34.72%
6	3/4"	0		18.78	0	0		18.78	0	0		18.78	0	0		12.25	0	0	0.00%
7	1"	87		25.41	2,217	87		25.41	2,217	87		25.41	2,217	87		16.58	1,447	(770)	-34.73%
8	1-1/2"	71		42.03	2,984	71		42.03	2,984	71		42.03	2,984	77		27.42	2,109	(875)	-29.32%
9	2"	407		61.98	25,231	407		61.98	25,231	407		61.98	25,231	407		40.43	16,459	(8,772)	-34.77%
10	3"	434		109.00	47,315	434		109.00	47,315	434		109.00	47,315	434		71.10	30,863	(16,452)	-34.77%
11	4"	528		174.93	92,368	528		174.93	92,368	528		174.93	92,368	528		114.11	60,253	(32,115)	-34.77%
12	6"	418		341.05	142,668	418		341.05	142,668	418		341.05	142,668	424		222.47	94,379	(48,289)	-33.85%
13	8"	183		581.84	106,733	183		581.84	106,733	183		581.84	106,733	183		379.54	69,629	(37,110)	-34.77%
14	10"	120		977.61	117,139	120		977.61	117,139	120		977.61	117,139	120		637.71	76,412	(40,727)	-34.77%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$537,551				$537,551				$537,551				$352,391	($185,160)	-34.45%
17																			
18	Volumetric Charges:																		
19	Rate A		1,292,760	0.41358	$535,177		1,292,760	0.41358	$535,177		639,790	0.41358	$264,860		639,790	0.54761	$350,355	$85,495	32.28%
20	Rate J		38,929,149	0.17000	6,617,955		38,929,149	0.17000	6,617,955		39,582,119	0.17000	6,728,960		39,582,119	0.21000	8,312,245	1,583,285	23.53%
21																			
22	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
23	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26																			
27	Normalization																		
28	Rate A		0	0.41358	$0		(652,970)	0.41358	($270,317)		0	0.41358	$0		0	0.54761	$0	$0	0.00%
29	Rate J		0	0.17000	0		652,970	0.17000	111,005		0	0.17000	0		0	0.21000	0	0	0.00%
30																			
31	Total		40,221,909		$7,691,683		40,221,909		$7,531,771		40,221,909		$7,531,771		40,221,909		$9,014,991	$1,483,220	19.69%
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Anne Meadows, Redfield, Janson Estate)

Missouri Public Service Commission — **Case No. WR-2017-0285**
Company: Missouri-American Water Company — **Schedule CAS-11-12**
Industrial — **Page 7 of 12**

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates PYE 05/31/18				Present Pro Forma Rates PYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Industrial Quarterly Billing**																		
3																			
4	Minimum Charge:																		
5	5/8"	0		$22.35	$0	0		$0.00	$0	0		$0.00	$0	0		$30.00	$0	$0	0.00%
6	3/4"	0		27.67	0	0		27.67	0	0		27.67	0	0		36.75	0	0	0.00%
7	1"	0		38.39	0	0		38.39	0	0		38.39	0	0		49.74	0	0	0.00%
8	1-1/2"	4		65.04	260	4		65.04	260	4		65.04	260	2		82.26	148	(112)	-43.08%
9	2"	0		97.03	0	0		97.03	0	0		97.03	0	0		121.29	0	0	0.00%
10	3"	0		182.46	0	0		182.46	0	0		182.46	0	0		213.30	0	0	0.00%
11	4"	0		278.53	0	0		278.53	0	0		278.53	0	0		342.33	0	0	0.00%
12	6"	4		545.37	2,181	4		545.37	2,181	4		545.37	2,181	2		667.41	1,204	(977)	-44.80%
13	8"	0		865.59	0	0		865.59	0	0		865.59	0	0		1,138.62	0	0	0.00%
14	10"	0		1,292.52	0	0		1,292.52	0	0		1,292.52	0	0		1,913.13	0	0	0.00%
15	12"	0		1,551.03	0	0		1,551.03	0	0		1,551.03	0	0		2,295.75	0	0	0.00%
16	5/8" - Prorated	0		16.09	$0	0		16.09	$0	0		16.09	$0	0		30.00	0	0	0.00%
17	3/4" - Prorated	0		18.62	0	0		18.62	0	0		18.62	0	0		36.75	0	0	0.00%
18	1" - Prorated	0		23.64	0	0		23.64	0	0		23.64	0	0		49.74	0	0	0.00%
19	1-1/2" - Prorated	1		36.27	36	1		36.27	36	1		36.27	36	1		82.26	82	46	127.78%
20	2" - Prorated	0		51.38	0	0		51.38	0	0		51.38	0	0		121.29	0	0	0.00%
21	3" - Prorated	0		91.79	0	0		91.79	0	0		91.79	0	0		213.30	0	0	0.00%
22	4" - Prorated	0		137.18	0	0		137.18	0	0		137.18	0	0		342.33	0	0	0.00%
23	6" - Prorated	0		263.29	0	0		263.29	0	0		263.29	0	0		667.41	0	0	0.00%
24	8" - Prorated	0		414.66	0	0		414.66	0	0		414.66	0	0		1,138.62	0	0	0.00%
25	10" - Prorated	0		616.43	0	0		616.43	0	0		616.48	0	0		1,913.13	0	0	0.00%
26	12" - Prorated	0		818.29	0	0		818.29	0	0		818.29	0	0		2,295.75	0	0	0.00%
27					$2,477				$2,477				$2,477				$1,434	($1,043)	-42.11%
28																			
29																			
30	Volumetric Charges:																		
31	Rate A		6,814	0.41358	$2,821		6,814	0.41358	$2,821		6,814	0.41358	$2,821		6,814	0.54761	$3,732	$911	32.29%
32																			
33	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
34	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
35	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
36	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
37																			
38	Total		6,814		$5,298		6,814		$5,298		6,814		$5,253		6,814		$5,166	($132)	-2.49%
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Merico, Jefferson City, Lake Carmel, Hickory Hills, Arse Meadows, Redfield, Jasson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Other Public Authorities

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Line #	Class/ Description	Base Year 12/31/2016 Normalized Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**OPA Monthly Billing**																		
3																			
4	Minimum Charge:																		
5	5/8"	1,063		$15.33	$16,290	1,116		$15.33	$17,116	1,151		$15.33	$17,650	1,984		$10.00	$19,835	$2,185	12.38%
6	3/4"	32		18.78	599	32		18.78	599	32		18.78	599	1,010		12.25	12,367	11,768	1964.61%
7	1"	994		25.41	25,260	994		25.41	25,260	994		25.41	25,260	1,721		16.55	28,534	3,274	12.96%
8	1-1/2"	590		42.03	24,778	590		42.03	24,778	590		42.03	24,778	914		27.42	25,067	289	1.17%
9	2"	1,786		61.58	110,704	1,786		61.58	110,704	1,786		61.58	110,704	2,832		40.43	115,319	4,615	4.17%
10	3"	274		109.00	29,866	274		109.00	29,866	274		109.00	29,866	428		71.10	30,447	581	1.95%
11	4"	156		174.93	27,289	156		174.93	27,289	156		174.93	27,289	239		114.11	27,242	(47)	-0.17%
12	6"	60		341.05	20,463	60		341.05	20,463	60		341.05	20,463	202		222.47	44,901	24,438	119.43%
13	8"	48		581.84	27,928	48		581.84	27,928	48		581.84	27,928	72		379.54	27,190	(738)	-2.64%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	18		637.71	11,306	11,306	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$263,177				$284,003				$284,537				$342,208	$57,671	20.37%
17																			
18	Volumetric Charges:																		
19	Rate A		2,903,417	0.41398	$1,201,956		2,903,417	0.41398	$1,201,956		2,903,417	0.41398	$1,201,956		2,903,417	0.54761	$1,589,940	$387,984	32.28%
20	Rate J			0.17000	0		0	0.17000	0		0	0.17000	0		0		0	0	0.00%
21																			
22	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
23	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26																			
27	Normalization																		
28	Rate A		0	0.41398	$0		0	0.41398	$0		0	0.41398	$0		0	0.54761	$0	$0	0.00%
29	Rate J		0	0.17000	0		0	0.17000	0		0	0.17000	0		0	0.00000	0	0	0.00%
30																			
31	Total		2,903,417		$1,465,133		2,903,417		$1,485,959		2,903,417		$1,485,493		2,903,417		$1,932,148	$446,655	29.93%
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Anne Meadows, Redfield, Jackson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Other Public Authorities

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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**OPA Quarterly Billing**																		
3																			
4	Minimum Charges:																		
5	5/8"	553		$22.35	$12,590	553		$22.35	$12,590	553		$22.35	$12,590	254		$30.00	$7,623	($4,967)	-39.45%
6	3/4"	662		27.67	18,310	662		27.67	18,310	662		27.67	18,310	299		36.75	10,970	(7,340)	-40.09%
7	1"	492		38.39	18,888	492		38.39	18,888	492		38.39	18,888	222		49.74	11,039	(7,849)	-41.56%
8	1-1/2"	220		65.04	14,292	220		65.04	14,292	220		65.04	14,292	99		82.26	8,154	(6,138)	-42.95%
9	2"	722		97.03	70,024	722		97.03	70,024	722		97.03	70,024	326		121.29	39,455	(30,539)	-43.61%
10	3"	104		182.45	19,048	104		182.45	19,048	104		182.45	19,048	47		213.30	10,044	(9,004)	-47.27%
11	4"	56		278.53	15,558	56		278.53	15,558	56		278.53	15,558	25		342.33	8,648	(6,910)	-44.56%
12	6"	96		545.37	52,356	96		545.37	52,356	96		545.37	52,356	43		667.41	28,902	(23,454)	-44.80%
13	8"	16		865.59	13,849	16		865.59	13,849	16		865.59	13,849	7		1,138.62	8,218	(5,631)	-40.65%
14	10"	12		1,292.52	15,510	12		1,292.52	15,510	12		1,292.52	15,510	5		1,913.13	10,356	(5,154)	-33.23%
15	12"	0		1,551.03	0	0		1,551.03	0	0		1,551.03	0	0		2,295.75	0	0	0.00%
16	5/8" - Prorated	7		16.09	$113	7		16.09	$113	7		16.09	$113	7		30.00	210	97	85.84%
17	3/4" - Prorated	11		18.62	205	11		18.62	205	11		18.62	205	11		36.75	404	199	97.07%
18	1" - Prorated	5		23.64	118	5		23.64	118	5		23.64	118	5		49.74	249	131	111.02%
19	1-1/2" - Prorated	0		35.27	0	0		35.27	0	0		35.27	0	0		82.26	0	0	0.00%
20	2" - Prorated	6		51.38	308	6		51.38	308	6		51.38	308	6		121.29	728	420	136.35%
21	3" - Prorated	1		91.79	92	1		91.79	92	1		91.79	92	1		213.30	213	121	131.52%
22	4" - Prorated	0		137.18	0	0		137.18	0	0		137.18	0	0		342.33	0	0	0.00%
23	6" - Prorated	0		263.29	0	0		263.29	0	0		263.29	0	0		667.41	0	0	0.00%
24	8" - Prorated	0		414.66	0	0		414.66	0	0		414.66	0	0		1,138.62	0	0	0.00%
25	10" - Prorated	0		616.43	0	0		616.43	0	0		616.43	0	0		1,913.13	0	0	0.00%
26	12" - Prorated	0		818.29	0	0		818.29	0	0		818.29	0	0		2,295.75	0	0	0.00%
27					$251,301				$251,301				$251,301				$145,243	($106,058)	-42.20%
28																			
29	Volumetric Charges:																		
30	Rate A		3,836,032	0.41358	$1,588,041		3,836,032	0.41358	$1,588,041		3,836,032	0.41358	$1,588,041		3,836,032	0.54761	$2,100,650	$512,609	32.28%
31																			
32	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
33	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
34	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
35	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
36																			
37	Normalization																		
38	Usage		0	0.41358	$0		0	0.41358	$0		0	0.41358	$0		0	0.54761	$0	$0	0.00%
39																			
40	Total		3,836,032		$1,839,342		3,836,032		$1,839,342		3,836,032		$1,839,342		3,836,032		$2,245,893	$406,551	22.10%

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Ames Meadows, Redfield, Jackson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Other Water Utilities

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**OWU Monthly Billing**																		
3																			
4	Minimum Charge:																		
5	5/8"	0		$15.33	$0	0		$15.33	$0	0		$15.33	$0	0		$10.00	$0	$0	0.00%
6	3/4"	0		18.78	0	0		18.78	0	0		18.78	0	0		12.25	0	0	0.00%
7	1"	0		25.41	0	0		25.41	0	0		25.41	0	0		16.58	0	0	0.00%
8	1-1/2"	0		42.03	0	0		42.03	0	0		42.03	0	0		27.42	0	0	0.00%
9	2"	48		61.89	2,971	48		61.89	2,971	48		61.89	2,971	48		40.48	1,941	(1,030)	-34.67%
10	3"	12		109.00	1,308	12		109.00	1,308	12		109.00	1,308	12		71.10	853	(455)	-34.79%
11	4"	0		174.93	0	0		174.93	0	0		174.93	0	0		114.11	0	0	0.00%
12	6"	12		341.05	4,093	12		341.05	4,093	12		341.05	4,093	12		222.47	2,670	(1,423)	-34.77%
13	8"	0		581.84	0	0		581.84	0	0		581.84	0	0		379.54	0	0	0.00%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16																			
17	C-1 Fix Revenue				1,422,125				1,422,125				1,422,125				1,422,125	0	0.00%
18					$1,430,497				$1,430,497				$1,430,497				$1,427,589	(2,908)	
19	Volumetric Charges:																		
20	Rate B		17,029,908	0.200750	$3,418,754		17,029,908	0.200750	$3,418,754		16,453,906	0.20075	$3,303,122		16,453,906	0.22200	$3,652,787	$349,645	10.55%
21	City of Kirkwood		12,447,513	0.089240	1,110,816		12,447,513	0.091540	1,139,445		12,447,513	0.09283	1,155,540		12,447,513	0.09283	1,155,540	0	0.00%
22	PWSD #C-1 Jefferson		10,040,419	0.086597	873,486		10,040,419	0.089381	897,352		10,040,419	0.08938	897,352		10,040,419	0.08938	897,352	0	
23																			
24	Normalization																		
25	Rate B		0	0.200750	0		(576,003)	0.200750	(115,633)		0	0.200750	0			0.22200	0	0	0.00%
26	City of Kirkwood		0	0.089240	0		0	0.091540	0		0	0.092833	0			0.09283	0	0	0.00%
27	PWSD #C-1 Jefferson		0	0.086597	0		0	0.089381	0		0	0.089375	0			0.08938	0	0	0.00%
28																			
29	Total		39,517,840		$6,833,553		39,541,837		$6,760,445		39,541,837		$6,785,521		39,541,837		$7,133,258	$346,737	5.11%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Mexico, Jefferson City, Lake Carmel, Hickory Hills, Aree Meadows, Redfield, Jasson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Private Fire

Case No. WR-2017-0285
Sched.6a CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Rate F:																		
3	Annual																		
4	2" or Less	151.72		$52.80	$8,011	150.00		$52.80	$7,920	150.00		$52.80	$7,920	150.00		$107.76	$16,164	$8,244	104.09%
5	3"	1.22		170.40	208	1.47		170.40	251	1.64		170.40	279	1.64		$107.76	177	(102)	-36.55%
6	4"	537.80		210.00	112,938	553.11		210.00	116,153	558.44		210.00	117,273	558.44		$347.76	194,205	76,932	65.60%
7	6"	2,203.40		472.80	1,041,768	2,227.08		472.80	1,052,965	2,235.58		472.80	1,056,984	2,235.58		$428.52	957,692	(98,992)	-9.37%
8	8"	1,271.06		841.20	1,069,216	1,289.44		841.20	1,084,681	1,292.78		841.20	1,087,485	1,292.78		$964.80	1,247,272	159,787	14.69%
9	10"	33.00		1,314.00	43,362	33.00		1,314.00	43,362	33.00		1,314.00	43,362	33.00		$1,716.60	56,648	13,286	30.64%
10	12"	79.79		1,892.40	150,955	79.54		1,892.40	151,267	80.28		1,892.40	151,918	80.28		$2,651.40	215,257	63,339	41.69%
11	20"	0.00		4,281.96	0	0		4,281.96	0	0		4,281.96	0	0.00		$3,851.60	0	0	0.00%
12	Hydrant	61.00		472.80	28,841	41.47		472.80	19,608	41.64		472.80	19,687	41.64		$964.80	40,173	20,486	104.06%
13																			
14	Monthly																		
15	2" or Less	259.74		$4.40	1,143	269.67		$4.40	1,187	271.67		$4.40	1,195	271.67		$8.53	2,440	1,245	104.18%
16	3"	12.00		14.20	170	12.00		14.20	170	12.00		14.20	170	12.00		$28.53	348	178	104.71%
17	4"	723.53		17.50	12,662	744.00		17.50	13,020	744.00		17.50	13,020	744.00		$35.71	26,568	13,548	104.06%
18	6"	1,929.50		39.40	76,022	1,983.67		39.40	78,156	1,997.67		39.40	78,708	1,997.67		$80.40	160,612	81,904	104.06%
19	8"	1,352.84		70.10	94,937	1,408.33		70.10	98,724	1,418.33		70.10	99,425	1,418.33		$143.05	202,898	103,468	104.07%
20	10"	288.00		109.50	31,536	299.33		109.50	32,777	303.33		109.50	33,215	303.33		$223.45	67,760	34,545	104.06%
21	12"	12.00		157.70	1,892	12.00		157.70	1,892	12.00		157.70	1,892	12.00		$323.80	3,882	1,970	104.12%
22	20"	0.00		356.83	0	0		356.83	0	0		356.83	0	0.00		$728.14	0	0	0.00%
23	Hydrant	593.85		39.40	23,398	554.33		39.40	23,417	597.33		39.40	23,338	592.33		$80.40	47,624	24,286	104.06%
24																			
25					$2,659,099				$2,725,570				$2,735,871				$3,240,015	504,144	18.43%
26																			
27	Volumetric Changes:																		
28	Residential Usage		96,374	0.41398	39,897		96,374	0.41398	39,897		96,374	0.41398	39,897		96,374	0.59176	56,066	16,169	40.53%
29	Non Residential Usage		337,571	0.41398	139,747		337,571	0.41398	139,747		337,571	0.41398	139,747		337,571	0.59176	196,385	56,638	40.53%
30																			
31																			
32																			
33	Total Rate F		433,944		$2,878,743		433,944		$2,905,214		433,944		$2,915,515		433,944		$3,492,466	$576,951	19.79%
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #1 (St Louis, Meriko, Jefferson City, Lake Carmel, Hickory Hills, Anna Meadows, Redfield, Jasson Estate)

Missouri Public Service Commission
Company: Missouri-American Water Company
Public Fire

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Rate F:																		
3	Monthly																		
4	Hydrant				$0				$0				$0	0			$0	$0	0.00%
5	2" or less				0				0				0	0			0	0	0.00%
6	3"				0				0				0	0			0	0	0.00%
7	4"				0				0				0	0			0	0	0.00%
8	6"				0				0				0	0			0	0	0.00%
9	8"				0				0				0	0			0	0	0.00%
10	10"				0				0				0	0			0	0	0.00%
11	12"				0				0				0	0			0	0	0.00%
12	Yearly													0					
13	Tap Size																		
14	Hydrant				0				0				0	0			0	0	0.00%
15	2" or less				0				0				0	0			0	0	0.00%
16	3"				0				0				0	0			0	0	0.00%
17	4"				0				0				0	0			0	0	0.00%
18	6"				0				0				0	0			0	0	0.00%
19	8"				0				0				0	0			0	0	0.00%
20	10"				0				0				0	0			0	0	0.00%
21	12"				0				0				0	0			0	0	0.00%
22					0				0				0	0			0	0	0.00%
23					0				0				0				0	0	0.00%
24																			
25																			
26	Volumetric Charges:																		
27	Monthly All Water				0				0				0		0		0	0	0.00%
28	Quarterly All Water				0				0				0		0		0	0	0.00%
29	Monthly Fixed Chg and Cr				0				0				0		0		0	0	0.00%
30																			
31																			
32	**Total Rate F**		0		$0		0		$0		0		$0		0		$0	$0	0.00%
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #2 (St Joseph, Brunswick, Platte County)

Missouri Public Service Commission
Company: Missouri-American Water Company
District #2 Northwest

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized		Present Pro Forma Rates FYE 05/31/18		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	18,859,907	$15,496,109	17,821,990	$15,027,477	17,693,862	$14,854,337	17,693,862	$14,522,837	($341,500)	-2.30%
5	Commercial	10,120,429	5,810,219	10,120,429	5,729,196	10,120,429	5,729,156	10,120,429	6,044,275	315,079	5.50%
6	Industrial	21,452,028	6,456,667	21,452,028	5,211,722	21,452,028	5,241,331	21,452,028	5,275,271	33,890	0.65%
7	Other Public Authority	1,878,813	697,650	1,878,813	927,832	1,878,813	927,832	1,878,813	951,451	23,619	2.55%
8	Other Water Utilities	8,622,755	2,590,081	8,622,756	2,598,603	8,622,755	2,600,310	8,622,755	2,819,541	219,231	8.43%
9	Private Fire	2,199	957,037	2,199	930,421	2,199	935,642	2,199	703,814	(231,828)	-28.55%
10	Public Fire	0	0	0	0	0	0	0	0	0	0.00%
11	Miscellaneous		7,658		7,658		7,658		7,658	0	0.00%
12											
13											
14											
15	Total	60,956,132	$32,325,751	59,928,215	$30,452,933	59,805,063	$30,355,437	59,805,063	$33,324,937	($2,000,754)	-6.59%
16											
17											
18	**Miscellaneous Revenues:**										
19											
20	Reconnect Charges		$165,919		$112,813		$112,813		$67,283	($45,530)	-40.36%
21	Returned Check Charge		7,644		8,324		8,324		8,324	0	0.00%
22	Application Fee		155,534		160,097		160,097		190,592	30,495	19.05%
23	Miscellaneous Other Revenue		18,070		18,318		18,318		94,716	76,398	417.07%
24	Rents from Water Property		72,311		72,630		72,630		72,630	0	0.00%
25											
26											
27			$32,745,240		$30,854,960		$30,728,619		$33,758,503	$29,884	0.10%
28											
29											
30											
31											
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35											
36											
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38											
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Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #2 (St Joseph, Brunswick, Platte County)

Missouri Public Service Commission
Company: Missouri-American Water Company
Residential

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	5/8"	379,760		$15.33	$5,821,728	382,111		$15.33	$5,857,757	382,940		$15.33	$5,870,473	382,940		$10.00	$3,829,402	($2,041,071)	-34.77%
6	3/4"	18,737		18.78	351,831	18,737		18.78	351,831	18,737		18.78	351,831	18,737		12.25	229,528	($122,353)	-34.77%
7	1"	14,456		25.41	367,332	14,456		25.41	367,332	14,456		25.41	367,332	14,456		16.58	239,684	($127,648)	-34.75%
8	1-1/2"	248		42.03	10,439	248		42.03	10,439	248		42.03	10,439	248		27.42	6,810	($3,629)	-34.76%
9	2"	205		61.98	12,712	205		61.98	12,712	205		61.98	12,712	205		40.43	8,292	($4,420)	-34.77%
10	3"	12		109.00	1,308	12		109.00	1,308	12		109.00	1,308	12		71.10	853	($455)	-34.79%
11	4"	0		174.93	0	0		174.93	0	0		174.93	0	0		114.11	0	0	0.00%
12	6"	0		341.05	0	0		341.05	0	0		341.05	0	0		222.47	0	0	0.00%
13	8"	0		551.84	0	0		551.84	0	0		551.84	0	0		379.54	0	0	0.00%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16	Low Income	0		(12.26)	0	1,440		(12.26)	(17,654)	11,022		(12.26)	(135,125)	11,022		(8.00)	(88,173)	46,952	(0)
17					$6,565,400				$6,583,775				$6,479,070				$4,226,396	($2,299,576)	-35.49%
18																			
19																			
20	Volumetric Charges:																		
21	Rate A		18,849,907	0.47378	$8,933,709		18,849,907	0.47378	$8,930,709		17,821,990	0.47378	$8,443,702		17,821,990	0.58176	$10,368,121	$1,924,419	22.79%
22																			
23	Normalization																		
24	Usage		0	0.47378	$0		(1,027,917)	0.47378	($487,007)		(123,127)	0.47378	($58,335)		(123,127)	0.58176	($71,630)	($13,295)	22.79%
25																			
26	Total		18,849,907		$15,499,109		17,821,990		$15,027,477		17,698,862		$14,854,367		17,698,862		$14,522,887	($375,157)	-2.42%
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #2 (St Joseph, Brunswick, Platte County)

Missouri Public Service Commission
Company: Missouri-American Water Company
Commercial

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Commercial Monthly Billing.																		
3																			
4	Minimum Charge.																		
5	5/8"	22,522		$15.33	$345,266	22,522		$15.33	$345,266	22,522		$15.33	$345,266	22,522		$10.00	$225,223	($120,043)	-34.77%
6	3/4"	1,794		18.78	33,700	1,794		18.78	33,700	1,794		18.78	33,700	1,794		12.25	21,982	(11,718)	-34.77%
7	1"	6,392		25.41	162,427	6,392		25.41	162,427	6,392		25.41	162,427	6,392		16.55	105,984	(56,443)	-34.75%
8	1-1/2"	1,365		42.03	57,388	1,365		42.03	57,388	1,365		42.03	57,388	1,365		27.42	37,439	(19,949)	-34.76%
9	2"	5,444		61.58	337,391	5,444		61.58	337,391	5,444		61.58	337,391	5,444		40.43	220,063	(117,328)	-34.77%
10	3"	330		109.00	35,942	330		109.00	35,942	330		109.00	35,942	330		71.10	23,445	(12,497)	-34.77%
11	4"	180		174.93	31,523	180		174.93	31,523	180		174.93	31,523	180		114.11	20,563	(10,960)	-34.77%
12	6"	84		341.05	28,644	84		341.05	28,644	84		341.05	28,644	84		222.47	18,684	(9,960)	-34.77%
13	8"	35		581.84	21,072	35		581.84	21,072	35		581.84	21,072	35		379.54	13,746	(7,326)	-34.77%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$1,053,353				$1,053,353				$1,053,353				$657,149	($396,204)	-34.77%
17																			
18	Volumetric Charges:																		
19	Rate A		9,881,165	0.47378	$4,681,438		9,881,165	0.47378	$4,681,438		9,370,879	0.47378	$4,439,735		9,370,879	0.54761	$5,131,587	$691,852	15.58%
20	Rate J		239,264	0.31500	75,358		239,264	0.31500	75,358		749,549	0.31500	236,108		749,549	0.30090	225,539	(10,569)	-4.48%
21																			
22	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
23	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26																			
27	Normalization																		
28	Rate A			0.47378	$0		($10,286)	0.47378	($241,763)		0	0.47378	$0		0	0.54761	$0	$0	0.00%
29	Rate J			0.31500	0		$10,286	0.31500	160,740		0	0.31500	0		0	0.30090	0	0	0.00%
30																			
31																			
32																			
33	Total		10,120,429		$5,810,219		10,120,429		$5,729,196		10,120,429		$5,729,196		10,120,429		$6,044,275	$315,079	5.50%
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #2 (St Joseph, Brunswick, Platte County)

Missouri Public Service Commission
Company: Missouri-American Water Company
Industrial

Case No. WR-2017-0265
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Industrial Monthly Billings:																		
3																			
4	Minimum Charge:																		
5	5/8"	163		$15.33	$2,496	163		$15.33	$2,496	163		$15.33	$2,496	163		$10.00	$1,628	($868)	-34.78%
6	3/4"	71		18.78	1,326	71		18.78	1,326	71		18.78	1,326	71		12.25	865	(461)	-34.77%
7	1"	219		25.41	5,562	219		25.41	5,562	219		25.41	5,562	219		16.55	3,629	(1,933)	-34.75%
8	1-1/2"	24		42.03	1,009	24		42.03	1,009	24		42.03	1,009	24		27.42	658	(351)	-34.79%
9	2"	731		61.58	45,331	731		61.58	45,331	731		61.58	45,331	731		40.43	29,549	(15,782)	-34.77%
10	3"	71		109.00	7,708	71		109.00	7,708	71		109.00	7,708	71		71.10	5,028	(2,680)	-34.77%
11	4"	159		174.93	27,745	159		174.93	27,745	159		174.93	27,745	159		114.11	18,099	(9,646)	-34.77%
12	6"	84		341.05	28,620	84		341.05	28,620	84		341.05	28,620	84		222.47	18,669	(9,951)	-34.77%
13	8"	69		581.84	40,147	69		581.84	40,147	69		581.84	40,147	69		379.54	26,188	(13,959)	-34.77%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$159,944				$159,944				$159,944				$104,333	($55,611)	-34.77%
17																			
18	Volumetric Charges:																		
19	Rate A		9,505,827	0.47378	$4,503,671		9,505,827	0.47378	$4,503,671		1,720,223	0.47378	$815,007		1,720,223	0.54761	$942,011	$127,004	15.58%
20	Rate J		4,572,976	0.31500	1,440,487		4,572,976	0.31500	1,440,487		12,358,530	0.31500	3,892,553		12,358,530	0.30090	3,718,697	(174,256)	-4.48%
21	Triumph		7,403,225	0.05955	440,862		7,403,225	0.05955	440,862		7,403,225	0.05955	440,862		7,403,225	0.06692	510,230	69,368	15.73%
22	EDR Credit				(77,997)				(97,043)				(97,385)				0	97,385	
23																			
24	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
25	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
27	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
28																			
29	Normalization:																		
30	Rate A			0.47378	$0		(7,785,604)	0.47378	($3,688,664)		0	0.47378	$0		0	0.54761	$0	$0	0.00%
31	Rate J			0.31500	0		7,785,604	0.31500	2,452,465		0	0.31500	0		0	0.30090	0	0	0.00%
32	Triumph			0.05555	0		0	0.05955	0			0.05555	0		0	0.06692	0	0	0.00%
33																			
34																			
35	Total		21,482,028		$6,466,967		21,482,028		$5,211,722		21,482,028		$5,241,381		21,482,028		$5,275,271	$33,890	0.65%
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #2 (St Joseph, Brunswick, Platte County)

Missouri Public Service Commission
Company: Missouri-American Water Company
Other Public Authorities

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**DPA Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	5/8"	774		$15.33	$11,862	774		$15.33	$11,862	774		$15.33	$11,862	774		$10.00	$7,737	($4,125)	-34.77%
6	3/4"	165		18.78	3,103	165		18.78	3,103	165		18.78	3,103	165		12.25	2,024	(1,079)	-34.77%
7	1"	468		25.41	11,887	468		25.41	11,887	468		25.41	11,887	468		16.55	7,756	(4,131)	-34.75%
8	1-1/2"	301		42.03	12,655	301		42.03	12,655	301		42.03	12,655	301		27.42	8,256	(4,399)	-34.76%
9	2"	1,229		61.98	76,167	1,229		61.98	76,167	1,229		61.98	76,167	1,229		40.43	49,694	(26,473)	-34.77%
10	3"	48		109.00	5,232	48		109.00	5,232	48		109.00	5,232	48		71.10	3,413	(1,819)	-34.77%
11	4"	84		174.93	14,721	84		174.93	14,721	84		174.93	14,721	84		114.11	9,603	(5,118)	-34.77%
12	6"	24		341.05	8,185	24		341.05	8,185	24		341.05	8,185	24		222.47	5,339	(2,846)	-34.77%
13	8"	12		581.84	6,982	12		581.84	6,982	12		581.84	6,982	12		379.54	4,554	(2,428)	-34.78%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$150,794				$150,794				$150,794				$99,366	($52,428)	-34.77%
17																			
18	Volumetric Charges:																		
19	Rate A		1,606,187	0.47378	$760,979		1,606,187	0.47378	$760,979		1,166,470	0.47378	$552,650		1,166,470	0.54761	$638,771	$86,121	15.58%
20	Rate J		272,626	0.31500	85,877		272,626	0.31500	85,877		712,343	0.31500	224,358		712,343	0.30090	214,344	(10,044)	-4.48%
21																			
22	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
23	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26																			
27	Normalization																		
28	Rate A			0.47378	$0		(439,717)	0.47378	($208,329)		0	0.47378	$0		0	0.54761	$0	$0	0.00%
29	Rate J			0.31500	0		439,717	0.31500	138,511		0	0.31500	0		0	0.30090	0	0	0.00%
30																			
31																			
32																			
33	Total		1,878,813		$997,650		1,878,813		$927,832		1,878,813		$927,832		1,878,813		$951,481	$23,649	2.55%
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #2 (St Joseph, Brunswick, Platte County)

Missouri Public Service Commission
Company: Missouri-American Water Company
Other Water Utilities:

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**DWU Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	5/8"	12		$15.33	$184	12		$15.33	$184	12		$15.33	$184	12		$10.00	$120	($64)	-34.78%
6	3/4"	0		18.78	0	0		18.78	0	0		18.78	0	0		12.25	0	0	0.00%
7	1"	12		25.41	305	12		25.41	305	12		25.41	305	12		16.58	199	(106)	-34.75%
8	1-1/2"	0		42.03	0	0		42.03	0	0		42.03	0	0		27.42	0	0	0.00%
9	2"	156		61.89	9,655	156		61.89	9,655	156		61.89	9,655	156		40.43	6,307	(3,348)	-34.68%
10	3"	36		109.00	3,924	36		109.00	3,924	36		109.00	3,924	36		71.10	2,560	(1,364)	-34.76%
11	4"	72		174.93	12,595	72		174.93	12,595	72		174.93	12,595	72		114.11	8,216	(4,379)	-34.77%
12	6"	36		341.05	12,278	36		341.05	12,278	36		341.05	12,278	36		222.47	8,009	(4,269)	-34.77%
13	8"	0		581.84	0	0		581.84	0	0		581.84	0	0		379.54	0	0	0.00%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$38,941				$38,941				$38,941				$25,411	($13,530)	-34.74%
17																			
18																			
19																			
20																			
21																			
22	Volumetric Charges:																		
23	Rate B		8,433,378	0.29240	$2,465,920		8,433,378	0.29240	$2,465,920		8,433,378	0.29240	$2,465,920		8,433,378	0.32000	$2,698,681	$232,761	9.44%
24	Charlton Co District2		189,378	0.45000	85,220		189,378	0.45500	93,742		189,378	0.50401	95,443		189,378	0.50401	95,443	10,229	12.00%
25																			
26	Normalization:																		
27	Rate B		0	0.2924	0		0	0.29240	0		0	0.29240	0			0.32000	0		
28	Charlton Co District2		0	0.4500	0		0	0.45500	0		0	0.50401	0			0.50401	0		
29																			
30	Total		8,622,756		$2,590,681		8,622,756		$2,559,603		8,622,756		$2,600,310		8,622,756		$2,819,541	$229,460	8.86%
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #2 [St Joseph, Brunswick, Platte County]

Missouri Public Service Commission
Company: Missouri-American Water Company
Private Fire

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates PYE 05/31/18				Present Pro Forma Rates PYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2																			
3	**Rate F:**																		
4																			
5	***Monthly***																		
6	2" or Less	240.13		19.80	$4,755	240.00		$19.80	$4,752	240.00		$19.80	$4,752	240.00		$8.98	$2,155	($2,597)	-54.65%
7	3"	24.00		34.00	816	24.00		34.00	816	24.00		34.00	816	24.00		$28.98	696	(120)	-14.71%
8	4"	1,337.62		53.90	72,093	1,334.33		53.90	74,616	1,334.33		53.90	75,155	1,334.33		$35.71	49,792	(25,363)	-33.75%
9	6"	2,829.07		110.40	310,121	2,852.00		110.40	314,861	2,876.00		110.40	317,510	2,876.00		$80.40	231,230	(86,280)	-27.17%
10	8"	1,451.91		190.10	276,008	1,517.00		190.10	288,352	1,523.00		190.10	289,522	1,523.00		$143.05	217,865	(71,657)	-24.75%
11	10"	311.92		292.20	91,143	323.33		292.20	94,478	327.33		292.20	95,647	327.33		$223.45	73,143	(72,504)	-23.53%
12	12"	132.00		416.50	54,978	132.00		416.50	54,978	132.00		416.50	54,978	132.00		$321.80	42,478	(12,500)	-22.74%
13	Hydrant	1,059.29		137.50	145,076	1,062.33		137.50	145,456	1,060.33		137.50	145,220	1,060.33		$80.40	85,251	(59,969)	-41.30%
14																			
15																			
16																			
17																			
18																			
19					$555,995				$979,379				$984,600				$702,610	($281,990)	-28.64%
20																			
21																			
22																			
23	Volumetric Charges:																		
24	Non Residential Usage		2,199	0.47378	1,042		2,199	0.47378	1,042		2,199	0.47378	1,042		2,199	0.54761	1,204	162	15.55%
25																			
26																			
27																			
28																			
29																			
30	**Total Rate F**		2,199		$557,037		2,199		$980,421		2,199		$985,642		2,199		$703,814	($281,828)	-28.59%
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
District #2 (St Joseph, Brunswick, Platte County)

Missouri Public Service Commission
Company: Missouri-American Water Company
Public Fire

Case No. WR-2017-0285
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Rate F:																		
3	Monthly																		
4	Hydrant				$0				$0				$0	0			$0	$0	0.00%
5	2" or Less				0				0				0	0			0	0	0.00%
6	3"				0				0				0	0			0	0	0.00%
7	4"				0				0				0	0			0	0	0.00%
8	6"				0				0				0	0			0	0	0.00%
9	8"				0				0				0	0			0	0	0.00%
10	10"				0				0				0	0			0	0	0.00%
11	12"				0				0				0	0			0	0	0.00%
12	Yearly													0					
13	Tap Size																		
14	Hydrant				0				0				0	0			0	0	0.00%
15	2" or Less				0				0				0	0			0	0	0.00%
16	3"				0				0				0	0			0	0	0.00%
17	4"				0				0				0	0			0	0	0.00%
18	6"				0				0				0	0			0	0	0.00%
19	8"				0				0				0	0			0	0	0.00%
20	10"				0				0				0	0			0	0	0.00%
21	12"				0				0				0	0			0	0	0.00%
22					0				0				0	0			0	0	0.00%
23					0				0				0				0	0	0.00%
24																			
25																			
26	*Volumetric Charges:*																		
27	Monthly All Water				0				0				0		0		0	0	0.00%
28	Quarterly All Water				0				0				0		0		0	0	0.00%
29	Monthly Fixed Chg and Cr				0				0				0		0		0	0	0.00%
30																			
31																			
32	**Total Rate F**		0		$0		0		$0		0		$0		0		$0	$0	0.00%
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates

District #3 Joplin, Warrensburg, Tri-State, Emerald Pt, Branson Canyon, Spring Valley, Ozark Mountain, Lakewood, Rankin Acres, Whitebranch, Maplewood, Stonebridge, Saddlebrooke, Riverside

Missouri Public Service Commission
Company: Missouri-American Water Company
District #3 Southwest

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Line #	Class/ Description	Base Year 12/31/2016 Normalized		Present Pro Forma Rates FYE 05/31/18		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	16,933,432	$12,777,826	16,588,069	$12,900,195	16,450,224	$12,906,026	16,450,224	$14,011,282	$1,105,256	8.56%
5	Commercial	11,690,429	5,675,146	11,690,429	5,527,416	11,690,429	5,527,541	11,690,429	6,978,745	1,450,804	26.24%
6	Industrial	14,053,778	4,155,913	14,053,778	3,323,178	14,053,778	3,323,177	14,053,778	3,922,295	599,119	18.03%
7	Other Public Authority	2,579,328	1,172,621	2,579,328	1,156,724	2,579,328	1,156,724	2,579,328	1,519,638	362,564	31.35%
8	Other Water Utilities	3,551,960	1,049,035	3,551,960	1,049,035	3,551,960	1,049,035	3,551,960	1,154,098	105,063	10.02%
9	Private Fire	462	990,442	462	1,074,566	462	1,099,782	462	783,072	(316,710)	-28.80%
10	Public Fire		0		0		0		0	0	0.00%
11	Miscellaneous		7,628		7,628		7,628		7,628	0	0.00%
12	Rankin Acres		59,685		59,685		59,685		49,806	(9,879)	-16.55%
13	Whitebranch		94,078		94,078		94,078		78,506	(15,572)	-16.55%
14											
15	Total	48,813,390	25,932,574	48,474,027	25,192,505	49,356,182	25,224,076	48,356,182	28,505,121	3,281,045	13.01%
16											
17											
18	**Miscellaneous Revenues:**										
19											
20	Reconnect Charges		$121,979		$103,167		$103,167		$67,933	($35,234)	-34.15%
21	Returned Check Charge		6,277		8,324		8,324		8,324	0	0.00%
22	Application Fee		238,359		205,247		205,247		244,333	39,087	19.04%
23	Miscellaneous Other Revenue		21,321		36,094		36,094		100,624	64,530	178.78%
24	Rents from Water Property		0		0		0		0	0	0.00%
25											
26											
27			$26,370,549		$25,545,337		$25,576,908		$28,926,335	$2,555,755	9.99%
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates

District #3 Joplin, Warrensburg, Tri-State, Emerald Pt, Branson Canyon, Spring Valley, Ozark Mountain, Lakewood, Parkin Acres, Whitebranch, Maplewood, Stonebridge, Saddlebrooke, Riverside

Missouri Public Service Commission
Company: Missouri-American Water Company
Residential

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Line #	Class/ Description	Base Year 12/31/2016 Normalized: Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18: Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19: Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates: Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Residential Monthly Billings																		
3																			
4	Minimum Charge:																		
5	5/8"	369,058		$15.33	$5,657,663	377,559		$15.33	$5,788,532	380,608		$15.33	$5,834,722	380,608		$10.00	$3,806,081	($2,028,641)	-34.77%
6	3/4"	120		18.78	2,254	120		18.78	2,254	120		18.78	2,254	120		12.25	1,470	(784)	-34.78%
7	1"	29,333		25.41	746,615	29,353		25.41	745,615	29,333		25.41	745,615	29,333		16.58	487,165	(259,450)	-34.75%
8	1-1/2"	47		42.03	1,975	47		42.03	1,975	47		42.03	1,975	47		27.42	1,289	(686)	-34.73%
9	2"	519		61.58	32,152	519		61.55	32,152	519		61.58	32,152	519		40.43	20,973	(11,179)	-34.77%
10	3"	0		109.00	0	0		109.00	0	0		109.00	0	0		71.10	0	0	0.00%
11	4"	0		174.93	0	0		174.93	0	0		174.93	0	0		114.11	0	0	0.00%
12	6"	0		341.05	0	0		341.05	0	0		341.05	0	0		222.47	0	0	0.00%
13	8"	0		581.84	0	0		581.84	0	0		581.84	0	0		379.54	0	0	0.00%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16	Low Income	0		(12.26)	0	2,693		(12.26)	(33,014)	2,693		(12.26)	(33,014)	2,693		(8.00)	(21,543)	11,471	-34.75%
17	Parkin Acres Flat	1,029		58.00	59,685	1,029		58.00	59,665	1,029		58.00	59,665	1,029		48.40	49,806	(9,879)	-16.55%
18	Whitebranch	1,622		58.00	94,078	1,622		58.00	94,078	1,622		58.00	94,078	1,622			78,506	(15,572)	-16.55%
19					$6,594,422				$6,692,277				$6,738,467				$4,423,747	($2,314,720)	-34.35%
20																			
21																			
22	Volumetric Charges:																		
23	Rate A		16,933,432	0.37424	6,337,167		16,533,432	0.37424	6,337,167		16,588,069	0.37424	6,207,919		16,588,069	0.58176	9,650,275	3,442,356	55.45%
24																			
25	Normalization																		
26	Usage		0	0.37424	0		(345,363)	0.37424	(129,249)		(107,845)	0.37424	(40,360)		(107,845)	0.58176	(62,740)	(22,380)	55.45%
27																			
28																			
29	Total		16,933,432		$12,931,589		16,588,069		$12,900,155		16,480,224		$12,906,026		16,480,224		$14,011,282	$1,127,639	8.74%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates

District #3 Joplin, Warrensburg, Tri-State, Emerald Pt, Branson Canyon, Spring Valley, Ozark Mountain, Lakewood, Parkin Acres, Whitebranch, Maplewood, Stonebridge, Saddlebrooke, Riverside

Missouri Public Service Commission — **Case No. WR-2017-0265**

Company: Missouri-American Water Company — **Schedule CAS-11-12**

Commercial —

Line #	Class/ Description	Base Year 12/31/2016 Normalized: Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18: Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19: Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates: Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	5/8"	25,855		$15.33	$396,351	25,908		$15.33	$397,162	25,942		$15.33	$397,687	25,942		$10.00	$259,417	($138,270)	-34.77%
6	3/4"	149		18.78	2,801	149		18.78	2,801	149		18.78	2,801	149		12.25	1,827	(974)	-34.77%
7	1"	8,771		25.41	222,878	8,771		25.41	222,878	8,771		25.41	222,878	8,771		16.58	145,428	(77,450)	-34.75%
8	1-1/2"	648		42.03	27,225	648		42.03	27,225	648		42.03	27,225	648		27.42	17,762	(9,463)	-34.76%
9	2"	8,335		61.98	516,687	8,335		61.98	516,687	8,335		61.98	516,687	8,335		40.43	337,039	(179,648)	-34.77%
10	3"	108		109.00	11,772	108		109.00	11,772	108		109.00	11,772	108		71.10	7,679	(4,093)	-34.77%
11	4"	362		174.93	63,314	362		174.93	63,314	362		174.93	63,314	362		114.11	41,301	(22,013)	-34.77%
12	6"	143		341.05	48,770	143		341.05	48,770	143		341.05	48,770	143		222.47	31,813	(16,957)	-34.77%
13	8"	36		551.84	20,946	36		551.84	20,946	36		551.84	20,946	36		379.54	13,663	(7,283)	-34.77%
14	10"	1		977.61	514	1		977.61	514	1		977.61	514	1		637.71	335	(179)	-34.82%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$1,311,258				$1,312,059				$1,312,594				$855,264	($456,330)	-34.77%
17																			
18	Volumetric Charges:																		
19	Rate A		11,611,456	0.37424	$4,345,471		11,611,456	0.37424	$4,345,471		10,558,272	0.37424	$3,951,328		10,558,272	0.54761	$5,781,815	$1,830,487	46.33%
20	Rate J		78,974	0.23320	18,417		78,974	0.23320	18,417		1,132,158	0.23320	264,019		1,132,158	0.30090	340,666	76,647	29.03%
21																			
22	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
23	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26																			
27	Normalization																		
28	Rate A		0	0.37424	$0		(1,053,184)	0.37424	($394,144)		0	0.37424	$0		0	0.54761	$0	$0	0.00%
29	Rate J		0	0.23320	0		1,053,184	0.23320	245,603		0	0.23320	0		0	0.30090	0	0	0.00%
30																			
31																			
32																			
33																			
34	Total		11,690,429		$5,675,146		11,690,429		$5,527,416		11,690,429		$5,527,641		11,690,429		$5,978,745	$1,450,634	26.24%
35																			
36																			
37																			
38																			
39																			
40																			

Test Year Operating Revenues at Present Rates vs Proposed Rates

District #3 Joplin, Warrensburg, Tri-State, Emerald Pt, Branson Canyon, Spring Valley, Ozark Mountain, Lakewood, Parkin Acres, Whitebranch, Maplewood, Stonebridge, Saddlebrooke, Riverside

Missouri Public Service Commission
Company: Missouri-American Water Company
Industrial

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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Industrial Monthly Billings**																		
3																			
4	Minimum Charge:																		
5	5/8"	379		$15.33	$5,807	379		$15.33	$5,807	379		$15.33	$5,807	379		$10.00	$3,788	($2,019)	-34.77%
6	3/4"	12		18.78	225	12		18.78	225	12		18.78	225	12		12.25	147	(78)	-34.67%
7	1"	161		25.41	4,089	161		25.41	4,089	161		25.41	4,089	161		16.58	2,668	(1,421)	-34.75%
8	1-1/2"	12		42.03	504	12		42.03	504	12		42.03	504	12		27.42	329	(175)	-34.72%
9	2"	486		61.98	30,118	486		61.98	30,118	486		61.98	30,118	486		40.43	19,646	(10,472)	-34.77%
10	3"	12		109.00	1,308	12		109.00	1,308	12		109.00	1,308	12		71.10	853	(455)	-34.79%
11	4"	163		174.93	28,550	163		174.93	28,550	163		174.93	28,550	163		114.11	18,643	(9,937)	-34.77%
12	6"	84		341.05	28,684	84		341.05	28,684	84		341.05	28,684	84		222.47	18,711	(9,973)	-34.77%
13	8"	15		551.84	8,628	15		551.84	8,628	15		551.84	8,628	15		379.54	5,628	(3,000)	-34.77%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$107,943				$107,943				$107,943				$70,433	($37,510)	-34.77%
17																			
18	Volumetric Charges:																		
19	Rate A		6,637,977	0.37424	$2,484,197		6,637,977	0.37424	$2,484,197		733,728	0.37424	$274,590		733,728	0.54761	$401,797	$127,207	46.33%
20	Rate J		2,367,855	0.23320	552,184		2,367,855	0.23320	552,184		8,272,104	0.23320	1,929,055		8,272,104	0.30090	2,489,076	560,021	29.03%
21	Empire Electric		5,057,946	0.20000	1,011,589		5,057,946	0.20000	1,011,589		5,057,946	0.20000	1,011,589		5,057,946	0.19000	961,010	(50,579)	-5.00%
22																			
23	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
24	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
27																			
28	Normalization																		
29	Rate A			0.37424	$0		(5,904,249)	0.37424	($2,209,605)		0	0.37424	$0		0	0.54761	$0	$0	0.00%
30	Rate J			0.23320	0		5,904,249	0.23320	1,376,871		0	0.23320	0		0	0.30090	0	0	0.00%
31	Empire Electric			0.20000	0		0	0.20000	0		0	0.20000	0		0	0.19000	0	0	0.00%
32																			
33																			
34	Total		14,063,778		$4,155,913		14,063,778		$3,373,176		14,063,778		$3,323,177		14,063,778		$3,922,296	$599,119	18.03%
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates

District #3 Joplin, Warrensburg, Tri-State, Emerald Pt, Brassen Canyon, Spring Valley, Ozark Mountain, Lakewood, Parkin Acres, Whitebranch, Maplewood, Stonebridge, Saddlebrooke, Riverside

Missouri Public Service Commission — **Case No. WR-2017-0285**

Company: Missouri-American Water Company — **Schedule CAS-11-12**

Other Public Authorities — **Page 5 of 8**

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**OPA Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	5/8"	1,553		$15.33	$23,802	1,553		$15.33	$23,802	1,553		$15.33	$23,802	1,553		$10.00	$15,526	($8,276)	-34.77%
6	3/4"	12		18.78	225	12		18.78	225	12		18.78	225	12		12.25	147	(78)	-34.67%
7	1"	546		25.41	13,868	546		25.41	13,868	546		25.41	13,868	546		16.55	9,049	(4,819)	-34.75%
8	1-1/2"	60		42.03	2,522	60		42.03	2,522	60		42.03	2,522	60		27.42	1,645	(877)	-34.77%
9	2"	1,149		61.98	71,189	1,149		61.98	71,189	1,149		61.98	71,189	1,149		40.43	46,437	(24,752)	-34.77%
10	3"	60		109.00	6,540	60		109.00	6,540	60		109.00	6,540	60		71.10	4,266	(2,274)	-34.77%
11	4"	288		174.93	50,384	288		174.93	50,384	288		174.93	50,384	288		114.11	32,867	(17,517)	-34.77%
12	6"	12		341.05	4,093	12		341.05	4,093	12		341.05	4,093	12		222.47	2,670	(1,423)	-34.77%
13	8"	60		581.84	34,910	60		581.84	34,910	60		581.84	34,910	60		379.54	22,772	(12,138)	-34.77%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$207,533				$207,533				$207,533				$135,379	($72,154)	-34.77%
17																			
18	Volumetric Charges:																		
19	Rate A		2,579,328	0.37424	$965,288		2,579,328	0.37424	$965,288		2,455,199	0.37424	$922,576		2,455,199	0.54761	$1,349,967	$427,391	46.33%
20	Rate J			0.23320	0		0	0.23320	0		114,130	0.23320	26,615		114,130	0.30090	34,342	7,727	29.03%
21																			
22	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
23	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26																			
27	Normalization																		
28	Rate A			0.37424	$0		(114,130)	0.37424	($42,712)		0	0.37424	$0		0	0.54761	$0	$0	0.00%
29	Rate J			0.23320	0		114,130	0.23320	26,615		0	0.23320	0		0	0.30090	0	0	0.00%
30																			
31																			
32																			
33																			
34	Total		2,579,328		$1,172,821		2,579,328		$1,156,724		2,579,328		$1,156,724		2,579,328		$1,519,688	$362,964	30.95%
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates

District 03 Joplin, Warrensburg, Tri-State, Emerald Pt, Brarsco Canyon, Spring Valley, Ozark Mountain, Lakewood, Rankin Acres, Whitebranch, Maplewood, Stonebridge, Saddlebrooke, Riverside

Missouri Public Service Commission
Company: Missouri-American Water Company
Other Water Utilities:

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	***OWU Monthly Billing:***																		
3																			
4	Minimum Charges:																		
5	5/8"	0		$15.33	$0	0		$15.33	$0	0		$15.33	$0	0		$10.00	$0	$0	0.00%
6	3/4"	0		18.78	0	0		18.78	0	0		18.78	0	0		12.25	0	0	0.00%
7	1"	12		25.41	305	12		25.41	305	12		25.41	305	12		16.58	199	(106)	-34.75%
8	1-1/2"	0		42.03	0	0		42.03	0	0		42.03	0	0		27.42	0	0	0.00%
9	2"	36		61.89	2,228	36		61.89	2,228	36		61.89	2,228	36		40.43	1,455	(773)	-34.69%
10	3"	0		109.00	0	0		109.00	0	0		109.00	0	0		71.10	0	0	0.00%
11	4"	12		174.93	2,099	12		174.93	2,099	12		174.93	2,099	12		114.11	1,369	(730)	-34.78%
12	6"	24		341.05	8,185	24		341.05	8,185	24		341.05	8,185	24		222.47	5,339	(2,846)	-34.77%
13	8"	24		581.84	13,964	24		581.84	13,964	24		581.84	13,964	24		379.54	9,109	(4,855)	-34.77%
14	10"	0		977.61	0	0		977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"	0		1,173.13	0	0		1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16					$26,781				$26,781				$26,781				$17,471	($9,310)	-34.76%
17																			
18																			
19																			
20																			
21																			
22	Volumetric Charges:																		
23	Rate B		3,551,960	0.28780	$1,022,254		3,551,960	0.28780	$1,022,254		3,551,960	0.28780	$1,022,254		3,551,960	0.32000	$1,136,627	$114,373	11.19%
24																			
25	Normalization																		
26	Rate B		0	0.28780	0		0	0.28780	0		0	0.28780	0			0.00000	0		
27																			
28																			
29	Total		3,551,960		$1,049,035		3,551,960		$1,049,035		3,551,960		$1,049,035		3,551,960		$1,154,098	$105,063	10.02%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates

District #3 Joplin, Warrensburg, Tri-State, Emerald Pt, Branson Canyon, Spring Valley, Ozark Mountain, Lakewood, Rankin Acres, Whitebranch, Maplewood, Stonebridge, Saddlebrooke, Riverside

Missouri Public Service Commission — **Case No. WR-2017-0265**

Company: Missouri-American Water Company — **Schedule CAS-11-12**

Private Fire — **Page 7 of 8**

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2																			
3	**Rate F:**																		
4																			
5	*Monthly*																		
6	2" or Less	285.40		$19.80	$5,651	379.33		$19.80	$7,511	407.33		$19.80	$8,065	407.33		$8.93	$3,636	($4,407)	-54.64%
7	3"	0.00		34.00	0	0.00		34.00	0	0.00		34.00	0	0.00		$28.58	0	0	0.00%
8	4"	1,885.03		53.90	93,823	1,862.00		53.90	100,362	1,922.00		53.90	103,596	1,922.00		$35.71	68,635	($34,961)	-33.75%
9	6"	3,185.23		110.40	351,760	3,486.33		110.40	384,891	3,556.33		110.40	392,619	3,556.33		$80.40	285,929	($106,690)	-27.17%
10	8"	2,026.17		190.10	385,175	2,067.67		190.10	393,063	2,081.67		190.10	395,725	2,081.67		$143.05	297,762	($97,963)	-24.75%
11	10"	96.00		292.20	28,051	96.00		292.20	28,051	96.00		292.20	28,051	96.00		$223.45	21,451	($6,600)	-23.53%
12	12"	60.00		416.50	24,990	65.67		416.50	27,350	67.67		416.50	28,183	67.67		$321.80	21,775	($6,408)	-22.74%
13	Hydrant	752.85		137.50	103,519	965.67		137.50	133,165	1,039.67		137.50	143,370	1,039.67		$80.40	83,589	($59,781)	-41.70%
14																			
15																			
16																			
17																			
18																			
19					$990,269				$1,074,393				$1,099,609				$782,819	($316,790)	-28.81%
20																			
21																			
22																			
23	Volumetric Charges:																		
24	Non Residential Usage		462	0.37424	173		462	0.37424	173		462	0.37424	173		462	0.54761	253	80	46.24%
25																			
26																			
27																			
28																			
29																			
30	**Total Rate F**		462		$990,442		462		$1,074,566		462		$1,099,782		462		$783,072	($316,710)	-28.80%
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates

District #3 Joplin, Warrensburg, Tri-State, Emerald Pt, Branson Canyon, Spring Valley, Ozark Mountain, Lakewood, Rankin Acres, Whitebranch, Maplewood, Stonebridge, Saddlebrooke, Riverside

Missouri Public Service Commission
Company: Missouri-American Water Company
Public Fire

Case No. WR-2017-0285
Sched..le CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates PtE 05/31/18				Present Pro Forma Rates PtE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Rate F:**																		
3	Monthly																		
4	Hydrant				$0				$0				$0	0			$0	$0	0.00%
5	2" or Less				0				0				0	0			0	0	0.00%
6	3"				0				0				0	0			0	0	0.00%
7	4"				0				0				0	0			0	0	0.00%
8	6"				0				0				0	0			0	0	0.00%
9	8"				0				0				0	0			0	0	0.00%
10	10"				0				0				0	0			0	0	0.00%
11	12"				0				0				0	0			0	0	0.00%
12	Yearly													0					
13	**Tap Size**																		
14	Hydrant				0				0				0	0			0	0	0.00%
15	2" or Less				0				0				0	0			0	0	0.00%
16	3"				0				0				0	0			0	0	0.00%
17	4"				0				0				0	0			0	0	0.00%
18	6"				0				0				0	0			0	0	0.00%
19	8"				0				0				0	0			0	0	0.00%
20	10"				0				0				0	0			0	0	0.00%
21	12"				0				0				0	0			0	0	0.00%
22					0				0				0	0			0	0	0.00%
23					0				0				0				0	0	0.00%
24																			
25																			
26	Volumetric Charges:																		
27	Monthly All Water				0				0				0		0		0	0	0.00%
28	Quarterly All Water				0				0				0		0		0	0	0.00%
29	Monthly Fixed Chg and Cr				0				0				0		0		0	0	0.00%
30																			
31																			
32	**Total Rate F**		0		$0		0		$0		0		$0		0		$0	$0	0.00%
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Wardsville Water

Missouri Public Service Commission
Company: Missouri-American Water Company
Wardsville-Water

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Year 12/31/2017 Normalized Sales 100 Gal	Year 12/31/2017 Normalized Total Revenue	Present Pro Forma Rates FYE 05/31/18 Sales 100 Gal	Present Pro Forma Rates FYE 05/31/18 Total Revenue	Present Pro Forma Rates FYE 05/31/19 Sales 100 Gal	Present Pro Forma Rates FYE 05/31/19 Total Revenue	Proposed Pro Forma Rates Sales 100 Gal	Proposed Pro Forma Rates Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	324,194	$193,871	321,601	$192,768	319,028	$191,675	319,028	$244,638	$52,963	27.63%
5	Commercial	18,451	8,532	18,451	8,592	18,451	8,532	18,451	12,094	3,112	34.65%
6	Industrial										
7	Other Public Authority										
8	Other Water Utilities										
9	Private Fire										
10	Public Fire										
11	Miscellaneous										
12											
13											
14											
15	Total	342,645	202,853	340,052	201,750	337,479	200,657	337,479	256,732	56,075	27.95%
16											
17											
18	**Miscellaneous Revenues:**										
19											
20	Reconnect Charges		$0		$0		$0		$0	$0	0.00%
21	Returned Check Charge		0		0		0		0	0	0.00%
22	Application Fee		0		0		0		0	0	0.00%
23	Miscellaneous Other Revenue		0		0		0		0	0	0.00%
24	Rents from Water Property		0		0		0		0	0	0.00%
25											
26											
27			$202,853		$201,750		$200,657		$256,732	$53,879	26.85%
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Wardsville Water

Missouri Public Service Commission
Company: Missouri-American Water Company
Residential

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Year 12/31/2017 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential Monthly Billings**																		
3																			
4	Minimum Charge:																		
5	5/8"	5,904		$9.50	$56,088	5,904		$9.50	$56,088	5,904		$9.50	$56,088	5,904		$10.00	$59,040	$2,952	5.26%
6	3/4"			9.50	0			9.50	0	0		9.50	0	0		12.75	0	0	0.00%
7	1"			9.50	0			9.50	0	0		9.50	0	0		16.58	0	0	0.00%
8	1-1/2"			9.50	0			9.50	0	0		9.50	0	0		27.42	0	0	0.00%
9	2"			9.50	0			9.50	0	0		9.50	0	0		40.43	0	0	0.00%
10	3"			9.50	0			9.50	0	0		9.50	0	0		71.10	0	0	0.00%
11	4"			9.50	0			9.50	0	0		9.50	0	0		114.11	0	0	0.00%
12	6"			9.50	0			9.50	0	0		9.50	0	0		222.47	0	0	0.00%
13	8"			9.50	0			9.50	0	0		9.50	0	0		379.54	0	0	0.00%
14	10"			9.50	0			9.50	0	0		9.50	0	0		637.71	0	0	0.00%
15	12"			9.50	0			9.50	0	0		9.50	0	0		765.25	0	0	0.00%
16																			
17																			
18																			
19					$56,088				$56,088				$56,088				$59,040	$2,952	5.26%
20																			
21																			
22	Volumetric Charges:																		
23	Rate A		324,154	0.42500	137,783		321,601	0.42500	136,680		319,028	0.42500	135,587		319,028	0.55176	185,598	50,011	36.88%
24																			
25	Normalization																		
26	Usage			0.42500	0			0.42500	0			0.42500	0		0	0.55176	0	0	0.00%
27																			
28																			
29	Total		324,154		$193,871		321,601		$192,768		319,028		$191,675		319,028		$244,638	$52,963	27.63%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Wardsville Water

Missouri Public Service Commission
Company: Missouri-American Water Company
Commercial

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Year 12/31/2017 Normalized Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial Monthly Billings:**																		
3																			
4	Minimum Charge:																		
5	5/8"			$9.50	$0			$9.50	$0			$9.50	$0	0		$10.00	$0	$0	0.00%
6	3/4"			9.50	0			9.50	0			9.50	0	0		12.25	0	0	0.00%
7	1"	120		9.50	1,140	120		9.50	1,140	120		9.50	1,140	120		16.58	1,990	850	74.56%
8	1-1/2"			9.50	0			9.50	0			9.50	0	0		27.42	0	0	0.00%
9	2"			9.50	0			9.50	0			9.50	0	0		40.43	0	0	0.00%
10	3"			9.50	0			9.50	0			9.50	0	0		71.10	0	0	0.00%
11	4"			9.50	0			9.50	0			9.50	0	0		114.11	0	0	0.00%
12	6"			9.50	0			9.50	0			9.50	0	0		222.47	0	0	0.00%
13	8"			9.50	0			9.50	0			9.50	0	0		379.54	0	0	0.00%
14	10"			9.50	0			9.50	0			9.50	0	0		637.71	0	0	0.00%
15	12"			9.50	0			9.50	0			9.50	0	0		765.25	0	0	0.00%
16					$1,140				$1,140				$1,140				$1,990	$850	74.56%
17																			
18	Volumetric Charges:																		
19	Rate A		18,451	0.42500	$7,842		18,451	0.42500	$7,842		18,451	0.42500	$7,842		18,451	0.54761	$10,104	$2,262	28.84%
20	Rate J				0			0.00000	0			0.00000	0		0	0.30090	0	0	0.00%
21																			
22	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
23	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
26																			
27	Normalization																		
28	Rate A			0.42500	$0			0.42500	$0			0.42500	$0		0	0.54761	$0	$0	0.00%
29	Rate J				0			0.00000	0			0.00000	0		0	0.30090	0	0	0.00%
30																			
31																			
32																			
33																			
34	Total		18,451		$8,982		18,451		$8,982		18,451		$8,982		18,451		$12,094	$3,112	34.65%
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Pevely Farms Water

Missouri Public Service Commission
Company: Missouri-American Water Company
Pevely Farms-Water

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Year 12/31/2017 Normalized		Present Pro Forma Rates FYE 05/31/18		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	242,226	$113,154	240,283	$112,352	238,366	$111,556	238,366	$147,072	$35,516	31.84%
5	Commercial	0	0	0	0	0	0	0	0	0	0.00%
6	Industrial										
7	Other Public Authority										
8	Other Water Utilities										
9	Miscellaneous										
10											
11											
12	Total	242,226	$113,154	240,283	$112,352	238,366	$111,556	238,366	$147,072	$35,516	31.84%
13											
14											
15											
16											
17	**Miscellaneous Revenues:**										
18											
19	Reconnect Charges		$0		$0		$0		$0	$0	0.00%
20	Returned Check Charge		0		0		0		0	0	0.00%
21	Application Fee		0		0		0		0	0	0.00%
22	Miscellaneous Other Revenue		692		692		692		692	0	0.00%
23	Rents from Water Property		0		0		0		0	0	0.00%
24											
25											
26			$113,846		$113,044		$112,248		$147,764	$35,918	30.22%
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Fevely Farms Water

Missouri Public Service Commission
Company: Missouri-American Water Company
Residential

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Year 12/31/2017 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential Monthly Billings**																		
3																			
4	Minimum Charge:																		
5	5/8"	840		$15.33	$12,877	840		$15.33	$12,877	840		$15.33	$12,877	840		$10.00	$8,400	($4,477)	-34.77%
6	3/4"			18.78	0			18.78	0	0		18.78	0	0		12.25	0	0	0.00%
7	1"			25.41	0			25.41	0	0		25.41	0	0		16.58	0	0	0.00%
8	1-1/2"			42.03	0			42.03	0	0		42.03	0	0		27.42	0	0	0.00%
9	2"			61.58	0			61.58	0	0		61.58	0	0		40.43	0	0	0.00%
10	3"			109.00	0			109.00	0	0		109.00	0	0		71.10	0	0	0.00%
11	4"			174.93	0			174.93	0	0		174.93	0	0		114.11	0	0	0.00%
12	6"			341.05	0			341.05	0	0		341.05	0	0		222.47	0	0	0.00%
13	8"			581.84	0			581.84	0	0		581.84	0	0		379.54	0	0	0.00%
14	10"			977.61	0			977.61	0	0		977.61	0	0		637.71	0	0	0.00%
15	12"			1,173.13	0			1,173.13	0	0		1,173.13	0	0		765.25	0	0	0.00%
16																			
17																			
18																			
19					$12,877				$12,877				$12,877				$8,400	($4,477)	-34.77%
20																			
21																			
22	Volumetric Charges:																		
23	Block 1		242,226	0.41358	100,177		240,283	0.41358	99,475		238,366	0.41358	98,679		238,366	0.56176	138,672	39,993	40.53%
24																			
25	Normalization																		
26	Block 1			0.41358	0			0.41358	0			0.41358	0		0	0.56176	0	0	0.00%
27																			
28																			
29	Total		242,226		$113,154		240,283		$112,352		238,366		$111,556		238,366		$147,072	$35,516	31.84%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Pevely Farms Water

Missouri Public Service Commission
Company: Missouri-American Water Company
Commercial

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Year 12/31/2017 Normalized				Present Fro Forma Rates FYE 05/31/18				Present Fro Forma Rates FYE 05/31/19				Proposed Fro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	5/8"			$15.33	$0			$15.33	$0			$15.33	$0	0		$10.00	$0	$0	0.00%
6	3/4"			18.78	0			18.78	0			18.78	0	0		12.25	0	0	0.00%
7	1"			25.41	0			25.41	0			25.41	0	0		16.58	0	0	0.00%
8	1-1/2"			42.03	0			42.03	0			42.03	0	0		27.42	0	0	0.00%
9	2"			61.53	0			61.55	0			61.53	0	0		40.43	0	0	0.00%
10	3"			109.00	0			109.00	0			109.00	0	0		71.10	0	0	0.00%
11	4"			174.93	0			174.93	0			174.93	0	0		114.11	0	0	0.00%
12	6"			341.05	0			341.05	0			341.05	0	0		222.47	0	0	0.00%
13	8"			551.84	0			551.84	0			551.84	0	0		379.54	0	0	0.00%
14	10"			977.61	0			977.61	0			977.61	0	0		637.71	0	0	0.00%
15	12"			1,173.13	0			1,173.13	0			1,173.13	0	0		765.25	0	0	0.00%
16					$0				$0				$0				$0	$0	0.00%
17																			
18	Volumetric Charges:																		
19	Block 1			0.00000	$0			0.00000	$0			0.00000	$0		0	0.54761	$0	$0	0.00%
20																			
21	Block 1			0.00000	$0			0.00000	$0			0.00000	$0			0.00000	$0	$0	0.00%
22	Block 2			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
23	Block 3			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
24	Block 4			0.00000	0			0.00000	0			0.00000	0			0.00000	0	0	0.00%
25																			
26																			
27	Normalization																		
28	Block 1			0.00000	$0			0.00000	$0			0.00000	$0		0	0.54761	$0	$0	0.00%
29																			
30																			
31																			
32																			
33																			
34	Total		0		$0		0		$0		0		$0		0		$0	$0	0.00%
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
Sewer Division Excluding Arnold WW

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized		Present Pro Forma Rates FYE 05/31/18		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	510,646	$3,770,249	510,646	$3,815,777	510,646	$3,838,542	510,646	$3,591,695	($246,847)	-6.43%
5	Commercial	484,613	451,643	484,613	455,627	484,613	457,618	484,613	484,259	26,641	5.82%
6	Industrial	0	0	0	0	0	0	0	0	0	0.00%
7	Other Public Authority	0	0	0	0	0	0	0	0	0	0.00%
8	Other Water Utilities	0	0	0	0	0	0	0	0	0	0.00%
9	Miscellaneous		488		0		0		0	0	0.00%
10											
11											
12	Total	995,259	4,222,380	995,259	4,271,404	995,259	4,296,160	995,259	4,075,954	(220,206)	-5.13%
13											
14											
15											
16											
17	**Miscellaneous Revenues:**										
18											
19	Reconnect Charges		0		0		0		0	0	0.00%
20	Returned Check Charge		242		0		0		216	216	0.00%
21	Application Fee		0		0		0		0	0	0.00%
22	Miscellaneous Other Revenue		902		0		120		9,115	8,995	7495.49%
23	Rents from Water Property		0		0		0		0	0	0.00%
24											
25											
26			$4,223,524		$4,271,404		$4,296,280		$4,085,285	($210,995)	-4.91%
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
17DS Platte County

Case No. WR-2017-0285
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates PYE 05/31/18				Present Pro Forma Rates PYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Residential:																		
3																			
4	Single Family	1,200		$55.93	$80,339	1,200		$66.63	$80,339	1,200		$66.63	$80,339	1,200		$53.42	$64,122	($16,217)	-20.19%
5	Mobile Homes																		
6	Multi Family																		
7																			
8																			
9	Total				$80,339				$80,339				$80,339				$64,122	($16,217)	-20.19%
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
3707 Cedar Hill WW

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Residential:																		
3																			
4	Single Family	8,628		$66.93	$577,473	8,853		$66.93	$592,340	9,006		$66.93	$602,773	9,006		$53.42	$481,102	($121,671)	-20.19%
5	Mobile Homes	1,226		60.24	73,835	1,226		$60.24	73,835	1,226		$60.24	73,835	1,226		53.42	65,476	(8,359)	-11.32%
6	Multi Family	276		53.55	14,783	276		$53.56	14,783	276		$53.56	14,783	276		53.42	14,744	(39)	-0.26%
7																			
8																			
9	Total				$666,091				$682,958				$691,391				$561,322	($130,069)	-18.81%
10																			
11																			
12																			
13																			
14																			
15						0				0									
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1707 Cedar Hill WW

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial**																		
3																			
4	Minimum	670		$66.93	$44,856	670		$66.93	$44,856	670		$66.93	$44,856	670		$53.42	$35,802	($9,054)	-20.18%
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17	Volumetric Charges:																		
18	Usage < 60 CGL		21,306	0.00000	$0		21,306	0.00000	$0		21,306	0.00000	$0		21,306	0.00000	0	0	0.00%
19	Usage > 60 CGL		143,551	0.70165	100,730		143,551	0.70165	100,730		143,551	0.70165	100,730		143,561	0.89040	127,827	27,097	26.90%
20																			
21	Total		164,857		$100,730		164,857		$100,730		164,857		$100,730		164,867		$127,827	$27,097	26.90%
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29	Total				$145,556				$145,556				$145,556				$163,629	$18,043	12.39%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
3715 Inchne Village (Warren County)

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Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Residential:																		
3																			
4	Flat Rate	5,076		$66.93	$339,726	5,172		$66.93	$346,151	5,220		$66.93	$349,364	5,220		$53.42	$278,844	($70,520)	-20.19%
5																			
6																			
7																			
8																			
9	Total		0		$339,726		0		$346,151		0		$349,364		0		$278,844	($70,520)	-20.19%
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
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29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1715 Inchne Village (Warren County)

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Commercial																		
3																			
4	Flat Rate	24		$55.93	$1,609	24		$56.93	$1,609	24		$56.93	$1,606	24		$53.42	$1,282	($324)	-20.17%
5																			
6																			
7																			
8																			
9	Total		0		$1,609		0		$1,609		0		$1,606		0		$1,282	($324)	-20.17%
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
21																			
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1723 Ozark Meadows

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential**																		
3																			
4	Minimum	306		$66.93	$20,513	306		$66.93	$20,513	306		$66.93	$20,513	306		$53.42	$16,372	($4,141)	-20.19%
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17	Volumetric Charges:																		
18	Usage < 60 CGL		6,497	0.00000	$0		6,497	0.00000	$0		6,497	0.00000	$0		6,497	0.00000	0	0	0.00%
19	Usage > 60 CGL		0	0.54796	0		0	0.54796	0		0	0.54796	0		0	0.00000	0	0	0.00%
20																			
21	Total		6,497		$0		6,497		$0		6,497		$0		6,497		$0	$0	0.00%
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29	Total				$20,513				$20,513				$20,513				$16,372	($4,141)	-20.19%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1726 Maplewood

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates PYE 05/31/18				Present Pro Forma Rates PYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Residential																		
3	Unmetered																		
4	Flat Rate	12		$35.92	$431	12		$35.52	$431	12		$35.92	$431	12		$38.25	$459	$28	6.50%
5																			
6	Metered																		
7	5/8"	4,353		6.42	27,944	4,365		6.42	28,021	4,371		6.42	28,059	4,371		33.25	167,175	139,116	495.80%
8	2"	0		68.70	0	0		68.70	0	0		68.70	0	0		159.13	0	0	0.00%
9	3"	0		128.83	0	0		128.83	0	0		128.83	0	0		350.82	0	0	0.00%
10					$28,375				$28,452				$28,490				$167,634	$139,144	488.40%
11																			
12																			
13																			
14																			
15																			
16																			
17	Volumetric Charges:																		
18	Usage in CGL		155,642	0.54795	$85,285		155,642	0.55	$85,285		155,642	0.55	$85,285		155,642	0.00000	0	(85,285)	-100.00%
19																			
20																			
21	Total		155,642		$85,285		155,642		$85,285		155,642		$85,285		155,642		50	($85,285)	-100.00%
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29	Total				$113,660				$113,737				$113,775				$167,634	$53,859	47.34%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1726 Maplewood

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Commercial																		
3	Unmetered																		
4	Flat Rate																		
5																			
6	Metered																		
7	5/8"	12		$6.42	$77	12		$6.42	$77	12		$6.42	$77	12		$38.25	$459	$382	496.10%
8	2"	24		68.70	1,649	24		68.70	1,649	24		68.70	1,649	24		49.76	1,194	(455)	-27.59%
9	3"	12		128.83	1,546	12		128.83	1,546	12		128.83	1,546	12		72.72	873	(673)	-43.53%
10					$3,272				$3,272				$3,272				$2,526	($746)	
11																			
12																			
13																			
14																			
15																			
16																			
17	Volumetric Charges:																		
18	Usage in CGL		163,892	0.54796	$89,806		163,892	0.54796	$89,806		163,892	0.54796	$89,806		2,728	0.00000	0	($89,806)	-100.00%
19															161,164	0.63750	102,742	102,742	0.00%
20																			
21	Total		163,892		$89,806		163,892		$89,806		163,892		$89,806		163,892		$102,742	$12,936	14.40%
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29	Total				$93,078				$93,078				$93,078				$105,268	$12,190	13.10%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
3727 Jefferson City & 1739 Renton County

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential:**																		
3																			
4	Single Family	19,458		$66.93	$1,304,980	19,714		$66.93	$1,319,436	19,822		$66.93	$1,326,665	19,822		$53.42	$1,058,874	($267,791)	-20.19%
5	Mobile Homes	12		$56.88	683	12		$56.88	683	12		$55.88	693	12		53.42	641	(42)	-6.15%
6	Multi Family	2,600		$56.88	147,890	2,600		$56.88	147,890	2,600		$56.88	147,890	2,600		53.42	138,894	(8,996)	-6.08%
7																			
8																			
9	Total				$1,453,553				$1,468,009				$1,475,238				$1,198,409	($276,829)	-18.77%
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
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38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
3727 Jefferson City & 1739 Benton County

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Commercial																		
3																			
4	Flat Rate	216		$66.93	$14,457	216		$66.93	$14,457	216		$66.93	$14,457	216		$53.42	$11,539	($2,918)	-20.18%
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17	Volumetric Charges:																		
18	Usage < 60 CGL		3,631	0.00000	$0		3,631	0.00000	$0		3,631	0.00000	$0		3,631	0.00000	0	0	0.00%
19	Usage > 60 CGL		5,793	0.63105	3,656		5,793	0.63105	3,656		5,793	0.63105	3,656		5,793	0.89040	5,158	1,502	41.08%
20																			
21	Total		9,424		$3,656		9,424		$3,656		9,424		$3,656		9,424		$5,158	$1,502	41.08%
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29	Total				$18,113				$18,113				$18,113				$16,697	($1,416)	-7.82%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1723 Stonebridge

Case No. WR-2017-0285
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential**																		
3	Rate A																		
4	5/8"	3,599		$42.04	$163,116	4,083		$42.04	$171,648	4,125		$42.04	$173,413	4,125		$53.42	$220,355	$46,942	27.07%
5	3/4"	0		54.69	0	0		54.69	0	0		54.69	0	0		53.42	0	0	0.00%
6	1"	0		79.93	0	0		79.93	0	0		79.93	0	0		79.93	0	0	0.00%
7	1.5"	0		143.08	0	0		143.08	0	0		143.08	0	0		143.08	0	0	0.00%
8	2"	0		218.86	0	0		218.86	0	0		218.86	0	0		218.86	0	0	0.00%
9	3"			385.58	0			385.58	0			385.58	0				0	0	0.00%
10	4"			631.75	0			631.75	0			631.75	0				0	0	0.00%
11	Flat Rate A	603		66.93	$40,371	603		66.93	$40,371	603		66.93	$40,371	603		53.42	$32,222	($8,149)	-20.19%
12																			
13	Volumetric Charges A:																		
14	Usage in CGL		98,554	0.61904	$61,034		98,554	0.61904	$61,034		98,554	0.61904	$61,034		98,554	0.00000	0	(61,034)	-100.00%
15																			
16	Total (A)		98,554		$269,521		98,554		$273,053		98,554		$274,818		98,554		$252,577	($22,241)	-8.09%
17																			
18	Rate B																		
19	5/8"	3,119		$37.65	$117,445	3,203		$37.65	$120,607	3,245		$37.65	$122,169	3,245		$53.42	$173,358	$51,179	41.89%
20	3/4"			48.97	0			48.97	0			48.97	0						
21	1"			71.57	0			71.57	0			71.57	0						
22	1.5"			143.08	0			143.08	0			143.08	0						
23	2"			218.86	0			218.86	0			218.86	0						
24	3"			345.24	0			345.24	0			345.24	0						
25	4"			555.66	0			555.66	0			555.66	0						
26	Flat Rate B	24		66.93	$1,606	24		66.93	$1,606	24		66.93	$1,606	24		53.42	$1,282	($324)	-20.17%
27																			
28	Volumetric Charges B																		
29	Usage in CGL		73,271	0.41470	$30,385		73,271	0.41470	$30,385		73,271	0.41470	$30,385		73,271	0.00000	0	($30,385)	-100.00%
30																			
31	Total (B)		73,271		$149,436		73,271		$152,598		73,271		$154,160		73,271		$174,640	$20,480	13.28%
32																			
33	Total		171,865		$418,957		171,865		$425,651		171,865		$428,978		171,865		$427,217	($1,771)	-0.41%
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1229 Stonebridge

Case No. WR-2017-0285
Schedule CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Commercial																		
3	Rate A																		
4	5/8"	178		$42.04	$7,476	262		$42.04	$11,008	304		$42.04	$12,773	304		$53.42	$16,231	$3,458	27.07%
5	3/4"	0		54.69	0	0		54.69	0	0		54.69	0	0		53.42	0	0	0.00%
6	1"	312		79.93	24,938	312		79.93	24,938	312		79.93	24,938	312		79.93	24,938	0	0.00%
7	1.5"	156		143.08	22,320	156		143.08	22,320	156		143.08	22,320	156		143.08	22,320	0	0.00%
8	2"	24		218.86	5,253	24		218.86	5,253	24		218.86	5,253	24		218.86	5,253	0	0.00%
9	3"			385.58	0			385.58	0			385.58	0				0	0	0.00%
10	4"			631.75	0			631.75	0			631.75	0				0	0	0.00%
11	Flat Rate A	0		66.93	$0	0		66.93	$0	0		66.93	$0	0		$53.42	$0	$0	0.00%
12																			
13	Volumetric Charges A:																		
14	Usage in CCF		84,381	0.61904	$52,235		84,381	0.61904	$52,235		84,381	0.61904	$52,235		21,816	0.00000	0	($52,235)	-100.00%
15															62,555	0.89040	55,699	55,699	0.00%
16	Total (A)		84,381		$112,222		84,381		$115,754		84,381		$117,519		84,381		$124,441	$6,922	5.89%
17																			
18	Rate B																		
19	5/8"	116		$37.65	$4,378	128		$37.65	$4,820	134		$37.65	$5,046	134		$53.42	$7,174	$2,128	41.89%
20	3/4"			45.97	0			45.97	0			45.97	0			0.00	0	0	0.00%
21	1"			71.57	0			71.57	0			71.57	0			0.00	0	0	0.00%
22	1.5"			143.08	0			143.08	0			143.08	0			0.00	0	0	0.00%
23	2"			218.86	0			218.86	0			218.86	0			0.00	0	0	0.00%
24	3"			345.24	0			345.24	0			345.24	0			0.00	0	0	0.00%
25	4"			565.65	0			565.65	0			565.65	0			0.00	0	0	0.00%
26	Flat Rate B	0		66.93	$0	0		66.93	$0	0		66.93	$0	0		0.00	$0	0	0.00%
27																			
28	Volumetric Charges B																		
29	Usage in CCF		4,265	0.41470	$1,769		4,265	0.41470	$1,769		4,265	0.41470	$1,769		1,103	0.00000	0	(1,769)	-100.00%
30															3,162	0.89040	2,815	2,815	0.00%
31	Total (B)		4,265		$6,147		4,265		$6,589		4,265		$6,815		4,265		$9,989	$3,174	46.59%
32																			
33	Total		88,646		$118,369		88,646		$122,343		88,646		$124,334		88,646		$134,430	$10,096	8.11%
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1730 Fenton (Meramec)

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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential:**																		
3																			
4	Single Family	5,600		$27.02	$151,313	5,600		$27.02	$151,313	5,600		$27.02	$151,313	5,600		$38.25	$214,201	$62,888	41.56%
5	Mobile Homes	948		24.32	23,053	948		24.32	23,053	948		24.32	23,053	948		38.25	36,257	13,204	57.28%
6	Multi Family	5,518		21.62	119,307	5,518		21.62	119,307	5,518		21.62	119,307	5,518		38.25	211,077	91,770	76.92%
7																			
8																			
9	Total				$293,673				$293,673				$293,673				$461,535	$167,862	57.16%
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19																			
20																			
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39																			
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Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
3732 Saddlebrooke Village

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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential**																		
3	Monthly Charge																		
4	5/8"	241		$42.04	$10,117	265		$42.04	$11,126	277		$42.04	$11,631	277		$53.42	$14,779	$3,148	27.07%
5	3/4"	0		42.04	0	0		42.04	0	0		42.04	0	0		0.00	0	0	0.00%
6	1"	801		42.04	33,675	801		42.04	33,675	801		42.04	33,675	801		111.07	88,969	55,294	164.20%
7	1.5"	0		143.08	0	0		143.08	0	0		143.08	0	0		0.00	0	0	0.00%
8	2"	0		218.86	0	0		218.86	0	0		218.86	0	0		0.00	0	0	0.00%
9	3"	0		385.58	0	0		385.58	0	0		385.58	0	0		53.42	0	0	0.00%
10	4"	0		631.75	0	0		631.75	0	0		631.75	0	0		108.34	0	0	0.00%
11																			
12	Flat Rate A	0		66.93	$0	0		66.93	$0	0		66.93	$0	0		0.00	$0	$0	0.00%
13																			
14	Volumetric Charges A:																		
15	Usage in CCF		42,164	0.61904	$26,101		42,164	0.61904	$26,101		42,164	0.61904	$26,101		42,164	0.00000	0	(26,101)	-100.00%
16																			
17	Total (A)		42,164		$69,833		42,164		$70,902		42,164		$71,407		42,164		$103,748	$32,341	45.29%
18																			
19																			
20																			
21																			
22																			
23																			
24																			
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36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1735 Emerald Pointe

Case No. WR-2017-0285
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential**																		
3	Metered																		
4	5/8"	4,193		$47.73	$200,132	4,193		$47.73	$200,132	4,193		$47.73	$200,132	4,193		$53.42	$223,990	$23,858	11.92%
5	1"	12		108.34	1,300	12		108.34	1,300	12		108.34	1,300	12		108.34	1,300	$0	0.00%
6	2" or larger	12		331.69	3,980	12		331.69	3,980	12		331.69	3,980	12		331.69	3,980	$0	0.00%
7					$205,412				$205,412				$205,412				$229,270	$23,858	11.61%
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17	Volumetric Charges:																		
18	Usage < 20 CCF		45,576	0.00000	$0		45,576	0.00	$0		45,576	0.00	$0		45,576	0.00000	$0	0	0.00%
19	Usage > 20 CCF		88,903	0.34070	30,289		88,903	0.34	30,289		88,903	0.34	30,289		88,903	0.00000	0	(30,289)	
20																			
21	Total		134,479		$30,289		134,479		$30,289		134,479		$30,289		134,479		$0	($30,289)	-100.00%
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29	Total				$235,701				$235,701				$235,701				$229,270	($6,431)	-2.73%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission — **Case No. WR-2017-0285**
Company: Missouri-American Water Company — **Schedule CAS-11-12**
1735 Emerald Pointe —

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	Commercial																		
3	Metered																		
4	5/8"	122		$47.73	$5,823	122		$47.73	$5,823	122		$47.73	$5,823	122		$53.42	$6,517	$694	11.92%
5	1"	60		108.34	6,500	60		108.34	6,500	60		108.34	6,500	60		$53.42	3,205	($3,295)	-50.69%
6	2" or larger	132		331.69	43,783	132		331.69	43,783	132		331.69	43,783	132		$53.42	7,051	($36,732)	-83.90%
7					$55,106				$55,106				$56,106				$16,773	($39,333)	-70.10%
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17	Volumetric Charges:																		
18	Usage < 20 CGL		3,914	0.00000	$0		3,914	0.00000	$0		3,914	0.00000	$0		6,436	0.00000	$0	0	0.00%
19	Usage > 20 CGL		53,870	0.34070	18,354		53,870	0.34070	18,354		53,870	0.34070	18,354		51,348	0.89040	45,721	27,367	
20																			
21	Total		57,784		$18,354		57,784		$18,354		57,784		$18,354		57,784		$45,721	$27,367	149.11%
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29	Total				$74,460				$74,460				$74,460				$62,494	($11,966)	-16.07%
30																			
31																			
32																			
33																			
34																			
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Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
1737 Anna Meadows

Case No. WR-2017-0285
Sched.Je CAS-11-12

Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential**																		
3																			
4	Flat Rate	1,618		$35.92	$58,136	1,618		$35.92	$58,136	1,618		$35.92	$58,136	1,618		$38.25	$61,907	$3,771	6.49%
5																			
6																			
7																			
8																			
9	Total		0		$58,136		0		$58,136		0		$58,136		0		$61,907	$3,771	6.49%
10																			
11																			
12																			
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Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
3744 Hickory Hills

Case No. WR-2017-0285
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential**																		
3																			
4	Flat Rate	557		$35.92	$20,007	557		$35.92	$20,007	557		$35.92	$20,007	557		$38.25	$21,305	$1,298	6.49%
5																			
6																			
7																			
8																			
9	Total		0		$20,007		0		$20,007		0		$20,007		0		$21,305	$1,298	6.49%
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
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Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division Excluding Arnold Wastewater

Missouri Public Service Commission
Company: Missouri-American Water Company
3744 Hickory Hills

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Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates PYE 05/31/18				Present Pro Forma Rates PYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial**																		
3																			
4	Flat Rate	12		$35.92	$431	12		$35.92	$431	12		$35.92	$431	12		$38.25	$459	$28	6.50%
5																			
6																			
7																			
8																			
9	Total		0		$431		0		$431		0		$431		0		$459	$28	6.50%
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
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Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division

Missouri Public Service Commission
Company: Missouri-American Water Company
District: City of Arnold

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Base Year 12/31/2016 Normalized		Present Pro Forma Rates PYE 05/31/18		Present Pro Forma Rates PYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	4,944,617	$2,978,938	4,944,617	$2,995,757	4,944,617	$3,004,166	4,944,617	$3,004,166	$0	0.00%
5	Commercial	2,902,472	1,861,610	2,699,882	1,864,962	2,699,882	1,864,962	2,699,882	1,864,962	0	0.00%
6	Industrial	0	0	0	0	0	0	0	0	0	0.00%
7	Other Public Authority	32,654	18,553	32,654	14,456	32,654	14,456	32,654	14,456	0	0.00%
8	Other Water Utilities	0	0	0	0	0	0	0	0	0	0.00%
9	Miscellaneous		0		0		0		0	0	0.00%
10											
11											
12	Total	7,879,743	$4,879,501	7,677,153	$4,875,175	7,677,153	$4,883,584	7,677,153	$4,883,584	$0	0.00%
13											
14											
15											
16											
17	**Miscellaneous Revenues:**										
18											
19	Reconnect Charges		0		0		0		0	0	0.00%
20	Returned Check Charge		454		975		975		468	(507)	-52.00%
21	Application Fee		0		0		0		0	0	0.00%
22	Miscellaneous Other Revenue		132		44		44		6,311	6,267	14202.30%
23	Rents from Water Property		0		0		0		0	0	0.00%
24											
25											
26			$4,880,127		$4,876,194		$4,884,603		$4,890,363	$5,760	0.12%
27											
28											
29											
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31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division

Missouri Public Service Commission
Company: Missouri-American Water Company
District: City of Arnold

Case No. WR-2017-0265
Schedule CAS-12-APWW
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2																			
3	**Residential:**																		
4																			
5	Minimum Charge	93,918		$29.20	$2,742,414	94,494		$29.20	$2,759,233	94,762		$29.20	$2,767,642	94,762		$29.20	$2,767,642	$0	0.00%
6																			
7																			
8																			
9																			
10																			
11																			
12	Volumetric Charges:																		
13	Usage < 50 CGL		4,522,252	0.00000	$0		4,522,252	0.00000	$0		4,522,252	0.00000	$0		4,522,252	0.00000	$0	0	0.00%
14	Usage > 50 CGL		422,364	0.56000	236,524		422,364	0.56000	236,524		422,364	0.56000	236,524		422,364	0.56000	236,524	0	0.00%
15																			
16																			
17	Total		4,944,617		$236,524		4,944,617		$236,524		4,944,617		$236,524		4,944,617		$236,524	$0	0.00%
18																			
19																			
20	Total		4,944,617		$2,978,938		4,944,617		$2,995,757		4,944,617		$3,004,166		4,944,617		$3,004,166	$0	0.00%
21																			
22																			
23																			
24																			
25																			
26																			
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29																			
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31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division

Missouri Public Service Commission
Company: Missouri-American Water Company
District: City of Arnold

Case No. WR-2017-0285
Schedule CAS-12-AKWW
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2																			
3	Commercial																		
4																			
5	Minimum Charge	18,882		$29.20	$551,340	18,882		$29.20	$551,340	18,882		$29.20	$551,340	18,882		$29.20	$551,340	$0	0.00%
6																	0	0	
7																			
8																			
9																			
10																			
11																			
12	Volumetric Charges:																		
13	Usage < 50 CGL		354,130	0.00000	$0		354,130	0.00000	$0		354,130	0.00000	$0		354,130	0.00000	$0	0	0.00%
14	Usage > 50 CGL		2,548,342	0.56000	1,427,072		2,548,342	0.56000	1,427,072		2,548,342	0.56000	1,427,072		2,548,342	0.56000	1,427,072	0	0.00%
15	Usage Discount				(95,802)		(202,590)	0.56000	(113,450)		(202,590)	0.56000	(113,450)		(202,590)	0.56000	(113,450)	0	0.00%
16																			
17	Total		2,902,472		$1,332,270		2,699,882		$1,313,622		2,699,882		$1,313,622		2,699,882		$1,313,622	$0	0.00%
18																			
19																			
20	Total		2,902,472		$1,883,610		2,699,882		$1,864,962		2,699,882		$1,864,962		2,699,882		$1,864,962	$0	0.00%
21																			
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Sewer Division

Missouri Public Service Commission
Company: Missouri-American Water Company
District: City of Arnold

Case No. WR-2017-0285
Schedule CAS-12-ARWW
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Line #	Class/ Description	Base Year 12/31/2016 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2																			
3	**OPA**																		
4																			
5	Minimum Charge	154		$29.20	$4,497	154		$29.20	$4,497	154		$23.20	$4,497	154		$29.20	$4,497	$0	0.00%
6																			
7																			
8																			
9																			
10																			
11																			
12	Volumetric Charges:																		
13	Usage < 50 CGL		6,840	0.00000	$0		6,840	0.00000	$0		6,840	0.00000	$0		6,840	0.00000	$0	0	0.00%
14	Usage > 50 CGL		25,814	0.56000	14,456		25,814	0.56000	14,456		25,814	0.56000	14,456		25,814	0.56000	14,456	0	0.00%
15																0.56000			
16																			
17	Total		32,654		$14,456		32,654		$14,456		32,654		$14,456		32,654		$14,456	$0	0.00%
18																			
19																			
20	Total		32,654		$18,953		32,654		$18,953		32,654		$18,953		32,654		$18,953	$0	0.00%
21																			
22																			
23																			
24																			
25																			
26																			
27																			
28																			
29																			
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Wardsville WasteWater

Missouri Public Service Commission
Company: Missouri-American Water Company
Wardsville-WasteWater

Case No. WR-2017-0285
Schedule CAS-S1-12

Line #	Class/ Description	Year 12/31/2017 Normalized		Present Pro Forma Rates FYE 05/31/18		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	201,852	$295,877	201,852	$295,877	201,852	$295,877	201,852	$259,621	($36,256)	-12.25%
5	Commercial	0	0	0	0	0	0	0	0	0	0.00%
6	Industrial										
7	Other Public Authority										
8	Other Water Utilities										
9	Miscellaneous										
10											
11											
12	Total	201,852	$295,877	201,852	$295,877	201,852	$295,877	201,852	$259,621	($36,256)	-12.25%
13											
14											
15											
16											
17	**Miscellaneous Revenues:**										
18											
19	Reconnect Charges		$0		$0		$0		$0	$0	0.00%
20	Returned Check Charge		0		0		0		0	0	0.00%
21	Application Fee		0		0		0		0	0	0.00%
22	Miscellaneous Other Revenue		0		0		0		0	0	0.00%
23	Rents from Water Property		0		0		0		0	0	0.00%
24											
25											
26			$295,877		$295,877		$295,877		$259,621	($36,256)	-12.25%
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Wardsville WasteWater

Missouri Public Service Commission
Company: Missouri-American Water Company
Residential

Case No. WR-2017-0285
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Line #	Class/ Description	Year 12/31/2017 Normalized				Present Pro Forma Rates FYE 05/31/18				Present Pro Forma Rates FYE 05/31/19				Proposed Pro Forma Rates					
		Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	5/8"	4,860		$23.50	$114,210	4,860		$23.50	$114,210	4,860		$23.50	$114,210	4,860		$53.42	$259,621	$145,411	127.32%
6	3/4"			23.50	0			23.50	0	0		23.50	0	0		$53.42	0	0	0.00%
7	1"			23.50	0			23.50	0	0		23.50	0	0		$53.42	0	0	0.00%
8	1-1/2"			23.50	0			23.50	0	0		23.50	0	0		$79.93	0	0	0.00%
9	2"			23.50	0			23.50	0	0		23.50	0	0		$143.08	0	0	0.00%
10	3"			23.50	0			23.50	0	0		23.50	0	0		$218.85	0	0	0.00%
11	4"			23.50	0			23.50	0	0		23.50	0	0		$0.00	0	0	0.00%
12	6"			23.50	0			23.50	0	0		23.50	0	0		$53.42	0	0	0.00%
13	8"			23.50	0			23.50	0	0		23.50	0	0		$53.42	0	0	0.00%
14	10"			23.50	0			23.50	0	0		23.50	0	0		$0.00	0	0	0.00%
15	12"			23.50	0			23.50	0	0		23.50	0	0		$0.00	0	0	0.00%
16																			
17																			
18																			
19					$114,210				$114,210				$114,210				$259,621	$145,411	127.32%
20																			
21																			
22	Volumetric Charges:																		
23	Block 1		201,852	0.90000	181,667		201,852	0.90000	181,667		201,852	0.90000	181,667		201,852	0.00000	0	(181,667)	-100.00%
24																			
25	Normalization																		
26	Block 1			0.90000	0			0.90000	0			0.90000	0		0	0.00000	0	0	0.00%
27																			
28																			
29	Total		201,852		$295,877		201,852		$295,877		201,852		$295,877		201,852		$259,621	($36,255)	-12.25%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Wardsville WasteWater

Missouri Public Service Commission
Company: Missouri-American Water Company
Commercial

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Year 12/31/2017 Normalized Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	5/8"			$23.50	$0			$23.50	$0			$23.50	$0	0		$10.00	$0	$0	0.00%
6	3/4"			23.50	0			23.50	0			23.50	0	0		12.25	0	0	0.00%
7	1"			23.50	0			23.50	0			23.50	0	0		16.58	0	0	0.00%
8	1-1/2"			23.50	0			23.50	0			23.50	0	0		27.42	0	0	0.00%
9	2"			23.50	0			23.50	0			23.50	0	0		40.43	0	0	0.00%
10	3"			23.50	0			23.50	0			23.50	0	0		71.10	0	0	0.00%
11	4"			23.50	0			23.50	0			23.50	0	0		114.11	0	0	0.00%
12	6"			23.50	0			23.50	0			23.50	0	0		222.47	0	0	0.00%
13	8"			23.50	0			23.50	0			23.50	0	0		379.54	0	0	0.00%
14	10"			23.50	0			23.50	0			23.50	0	0		637.71	0	0	0.00%
15	12"			23.50	0			23.50	0			23.50	0	0		765.25	0	0	0.00%
16					$0				$0				$0				$0	$0	0.00%
17																			
18	Volumetric Charges:																		
19	Block 1			0.90000	$0			0.90000	$0			0.90000	$0		0	0.54761	$0	$0	0.00%
20																			
21																			
22	Normalization																		
23	Block 1			0.90000	$0			0.90000	$0			0.90000	$0		0	0.54761	$0	$0	0.00%
24																			
25																			
26																			
27																			
28																			
29	Total		0		$0		0		$0		0		$0		0		$0	$0	0.00%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Revely Farms Waste/Water

Missouri Public Service Commission
Company: Missouri-American Water Company
Revely Farms-Waste/Water

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Year 12/31/2017 Normalized		Present Pro Forma Rates FYE 05/31/18		Present Pro Forma Rates FYE 05/31/19		Proposed Pro Forma Rates			
		Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Sales 100 Gal	Total Revenue	Dollar Change	Percentage Change
1											
2	**Monthly Billing:**										
3											
4	Residential	0	$54,857	0	$46,583	0	$46,583	0	$37,180	($9,403)	-20.19%
5	Commercial	0	0	0	0	0	0	0	0	0	0.00%
6	Industrial										
7	Other Public Authority										
8	Other Water Utilities										
9	Miscellaneous										
10											
11											
12	Total	0	$54,857	0	$46,583	0	$46,583	0	$37,180	($9,403)	-20.19%
13											
14											
15											
16											
17	**Miscellaneous Revenues:**										
18											
19	Reconnect Charges		$0		$0		$0		$0	$0	0.00%
20	Returned Check Charge		0		0		0		0	0	0.00%
21	Application Fee		0		0		0		0	0	0.00%
22	Miscellaneous Other Revenue		54		54		54		54	0	0.00%
23	Rents from Water Property		0		0		0		0	0	0.00%
24											
25											
26			$54,911		$46,637		$46,637		$37,234	($17,677)	-37.90%
27											
28											
29											
30											
31											
32											
33											
34											
35											
36											
37											
38											
39											
40											

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Pevely Farms Waste/Water

Missouri Public Service Commission
Company: Missouri-American Water Company
Residential

Case No. WR-2017-0285
Schedule CAS-11-12
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Line #	Class/ Description	Year 12/31/2017 Normalized Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Residential Monthly Billing:**																		
3																			
4	Minimum Charge:																		
5	Single Family	696		$66.93	$46,583	696		$66.93	$46,583	696		$66.93	$46,583	696		$53.42	$37,180	($9,403)	-20.19%
6	Mobile Homes	84		60.24	5,060			60.24	0	0		60.24	0	0		0.00	0	0	0.00%
7	Multi Family	60		53.56	3,214			53.56	0	0		53.56	0	0		0.00	0	0	0.00%
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			
18																			
19					$54,857				$46,583				$46,583				$37,180	($9,403)	-20.19%
20																			
21																			
22	Volumetric Charges:																		
23	Block 1		0	0.00000	0		0	0.00000	0		0	0.00000	0		0	0.55176	0	0	0.00%
24																			
25	Normalization																		
26	Block 1			0.00000	0			0.00000	0			0.00000	0		0	0.55176	0	0	0.00%
27																			
28																			
29	Total		0		$54,857		0		$46,583		0		$46,583		0		$37,180	($9,403)	-20.19%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			

Schedule CEH-15

Test Year Operating Revenues at Present Rates vs Proposed Rates
Fevely Farms WasteWater

Missouri Public Service Commission
Company: Missouri-American Water Company
Commercial

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Schedule CAS-11-12
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Line #	Class/ Description	Year 12/31/2017 Normalized Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/18 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Present Pro Forma Rates FYE 05/31/19 Customer Meter Billings	Sales 100 Gal	Current Rate	Total Revenue	Proposed Pro Forma Rates Customer Meter Billings	Sales 100 Gal	Proposed Rate	Total Revenue	Dollar Change	Percentage Change
1																			
2	**Commercial Monthly Billing**																		
3																			
4	Minimum Charge:																		
5	5/8"			$0.00	$0			$0.00	$0			$0.00	$0	0		$10.03	$0	$0	0.00%
6	3/4"			0.00	0			0.00	0			0.00	0	0		12.25	0	0	0.00%
7	1"			0.00	0			0.00	0			0.00	0	0		16.58	0	0	0.00%
8	1-1/2"			0.00	0			0.00	0			0.00	0	0		27.42	0	0	0.00%
9	2"			0.00	0			0.00	0			0.00	0	0		40.43	0	0	0.00%
10	3"			0.00	0			0.00	0			0.00	0	0		71.10	0	0	0.00%
11	4"			0.00	0			0.00	0			0.00	0	0		114.11	0	0	0.00%
12	6"			0.00	0			0.00	0			0.00	0	0		222.47	0	0	0.00%
13	8"			0.00	0			0.00	0			0.00	0	0		379.54	0	0	0.00%
14	10"			0.00	0			0.00	0			0.00	0	0		637.71	0	0	0.00%
15	12"			0.00	0			0.00	0			0.00	0	0		765.25	0	0	0.00%
16					$0				$0				$0				$0	$0	0.00%
17																			
18	Volumetric Charges:																		
19	Block 1			0.00000	$0			0.00000	$0			0.00000	$0		0	0.54761	$0	$0	0.00%
20																			
21																			
22	Normalization																		
23	Block 1			0.00000	$0			0.00000	$0			0.00000	$0		0	0.54761	$0	$0	0.00%
24																			
25																			
26																			
27																			
28																			
29	Total		0		$0		0		$0		0		$0		0		$0	$0	0.00%
30																			
31																			
32																			
33																			
34																			
35																			
36																			
37																			
38																			
39																			
40																			