Exhibit No.:	
Issues:	Affordability, Universal Affordability Tariff, and Revenue Stabilization Mechanism
Witness:	Charles B. Rea
Exhibit Type:	Direct
Sponsoring Party:	Missouri-American Water Company
Case No.:	WR-2024-0320 SR-2024-0321
Date:	July 1, 2024

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2024-0320
CASE NO. SR-2024-0321

DIRECT TESTIMONY

OF

CHARLES B. REA

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

AFFIDAVIT

I, Charles B. Rea, under penalty of perjury, and pursuant to Section 509.030, RSMo, state that I am Senior Director, Enterprise-Wide Regulatory Pricing & Affordability for American Water Works Service Company, Inc., that the accompanying testimony has been prepared by me or under my direction and supervision; that if inquiries were made as to the facts in said testimony, I would respond as therein set forth; and that the aforesaid testimony is true and correct to the best of my knowledge and belief.

Charles B. Rea

Charles B. Rea

July 1, 2024
Dated

DIRECT TESTIMONY
CHARLES B. REA
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2024-0320
CASE NO. SR-2024-0321

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DIRECT TESTIMONY

CHARLES B. REA

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Charles B. Rea. My business address is 3409 Research Parkway, Davenport, IA 52806.

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

A. I am employed by the American Water Works Service Company, Inc. ("AWWSC"). My title is Senior Director, Enterprise-Wide Regulatory Pricing & Affordability.

Q. Please summarize your educational background and business experience.

A. I received a Bachelor of Arts degree in Computer Science from the University of Illinois at Springfield in 1986 and a Master of Science degree in Statistics and Operations Research from Southern Illinois University at Edwardsville in 1990.

I have been employed by AWWSC since January 2018 in my role as Senior Director, Rates and Regulatory. Previous to my employment with AWWSC, I was employed by MidAmerican Energy Company from June 1990 through January 2018. I have more than thirty years of utility experience covering a wide range of issues including electric system planning, sales and revenue forecasting, electric load research, marketing, rates, class cost of service, and energy efficiency. Most recently at MidAmerican, I was Director, Energy Efficiency and Regulatory Analytics. In that position, I had responsibility for planning, evaluation, and operational management of MidAmerican's energy efficiency and demand response programs in Illinois, Iowa, and South Dakota, as well as direct responsibility for electric and natural gas sales and revenue forecasting, electric peak demand forecasting, load research, retail pricing of electric and natural gas products, and

electric and natural gas cost of service and rate design.

Q. What are your current employment responsibilities?

A. My primary responsibility in my role as Senior Director, Enterprise-Wide Regulatory Pricing & Affordability, is to serve as the subject-matter expert on affordability issues and oversee the development of class cost of service studies, rate design, and revenue forecasting for the Company as that forecasting relates to development of rate cases. In addition, I serve as a subject-matter expert on policy issues related to the Company's rate design such as revenue decoupling mechanisms.

Q. Have you previously testified before a regulatory body?

A. Yes. During my employment with AWWSC, I have provided testimony regarding cost of service and rate design proposals for American Water subsidiaries in Missouri, Indiana, Illinois, Iowa, Virginia, West Virginia, Maryland, and New Jersey, and rate design proposals for American Water subsidiaries in Pennsylvania, Kentucky, and Tennessee. In addition, I have testified on numerous occasions in Iowa, Illinois, and South Dakota on issues regarding energy efficiency and electric and natural gas cost of service and rate design during my employment with Mid-American Energy Company.

Q. What is the purpose of your Direct Testimony in this proceeding?

A. The purpose of my Direct Testimony is to sponsor MAWC's affordability analyses and the Company's proposed Universal Affordability Tariff ("UAT"). I will also support the Company's proposed Revenue Stabilization Mechanism ("RSM").

Q. Please identify the schedules you will be sponsoring and for which you will be providing testimony.

A. I am sponsoring the following Company Schedules attached to my Direct Testimony:

- Schedule CBR-1: Water Affordability Analysis
- Schedule CBR-2: Wastewater Affordability Analysis
- Schedule CBR-3: Low-Income Discount Tariff
- Schedule CBR-4: Residential Partial Cost of Service
- Schedule CBR-5: RSM Tariff
- Schedule CBR-6: NARUC Resolution

II. AFFORDABILITY

a. Introduction

Q. Please describe the concept of affordability.

A. The concept of affordability for water and wastewater service is based on the idea that everyone should have access to drinking water and wastewater service that is (1) safe, meaning it complies with the U.S. Safe Drinking Water Act and regulations promulgated by the U.S. Environmental Protection Agency; (2) reliable, so that it is resilient in the face of floods, droughts, and other climate risks; and (3) affordable.

Q. Why is affordability of water and wastewater service an important issue to the Company?

A. The Company knows that its water and wastewater service is essential and that it must make necessary investments to continue to provide safe and reliable water and wastewater service. The Company also knows how important it is for that service to remain affordable. Maintaining affordability of service is an important objective for MAWC.

Q. How does the Company assess the affordability of its water and wastewater service?

A. The Company assesses the affordability of its water and wastewater service by comparing annual bills for water and wastewater service to household income in the communities we

serve.

Q. What types of affordability analyses does the Company conduct?

A. The Company conducts two different types of affordability analysis for its water and wastewater service. The first analysis is an Enterprise-Level Analysis of affordability, which considers affordability of service at a high level over a multi-year period. The second analysis is a Community-Level Analysis of affordability, which takes a deep dive into the affordability of service at the community level under current or proposed rates and current economic conditions. Both analyses are further discussed below.

Q. Has the Company provided an affordability analysis of its water and wastewater service for the proposed rates in this case?

A. Yes. The Company's affordability study for water service is provided in Schedule CBR-1 and the affordability study for wastewater service is provided in Schedule CBR-2. Each exhibit contains both the Enterprise-Level Analysis and a Community-Level Analysis for the applicable service.

Q. Please summarize the conclusions of the Company's affordability analysis for the proposed rates in this case

A. There are three conclusions that can be drawn from Company's affordability study:

- The affordability of the Company's water and wastewater service from 2012 through the Future Test Year (12 months ending May 31, 2026) indicates that the way the Company has invested in and managed its water and wastewater systems has indeed been for the long-term benefit of our customers.
- The Company's water and wastewater service has been, is, and is expected to continue to be affordable for the majority of its residential customers, including

under the rates proposed in this case.

- There are, however, groups of customers for whom affordability of water and wastewater service may be challenging.

Q. What are the basic foundations of the Company's affordability analysis?

A. The Company's assessment of affordability requires a minimum of two data points: the average monthly or annual bill for water or wastewater service and some measure of household income for the customer population. For the broader residential customer base, commonly available household income measures are measures of income at different percentiles. Median Household Income ("MHI"), which is household income at a 50th percentile level (50% of households in a given population have incomes greater than the median and 50% of households have incomes lower than the median), can be measured at a statewide or community level and can be paired with a data set that provides the number of customers served in each community to arrive at a weighted number that represents MHI for the Company's entire service territory.

At a more detailed level, individual household income is considered, and affordability can then be assessed, across a full range of households, based on their various income levels and bills for water and/or wastewater service. A variety of household income data is readily and publicly available from the U.S. Census Bureau through the American Community Survey ("ACS") at the state, county, and community levels.

b. Enterprise-Level Analysis

Q. Please describe the Company's Enterprise-Level Analysis of affordability of service.

A. The Enterprise-Level Analysis of affordability for water and wastewater service is a historical comparison of average monthly bills for MAWC's residential customers to

household income for the Company's residential customers. The metric used to describe affordability is the Bill-to-Income ("BTI") Ratio, which is defined as annual water or wastewater bills divided by estimated annual household income. This view looks at average residential monthly bills for all customers over time compared to MHI for the Company's residential customer base.

Q. What is the purpose and value of this Enterprise-Level Analysis

A. The purpose of the Enterprise-Level Analysis is to provide a high-level historical perspective on how the affordability of service has been trending over time and how it is expected to continue to trend under proposed rates. Although the Company is proposing to increase customer rates in this proceeding, the important metric to consider is the impact that proposed rates and bills have on customer finances and how those impacts have trended over time and are expected to trend going forward. This metric must consider not only trends in rates and bills but trends in household income. The value of the BTI Ratio metric proposed by the Company is that it considers all of these factors. The Company's BTI Ratio as presented in the Company's affordability analyses is therefore the appropriate metric to use when looking at the impact of the Company's rates for water and wastewater service on customers.

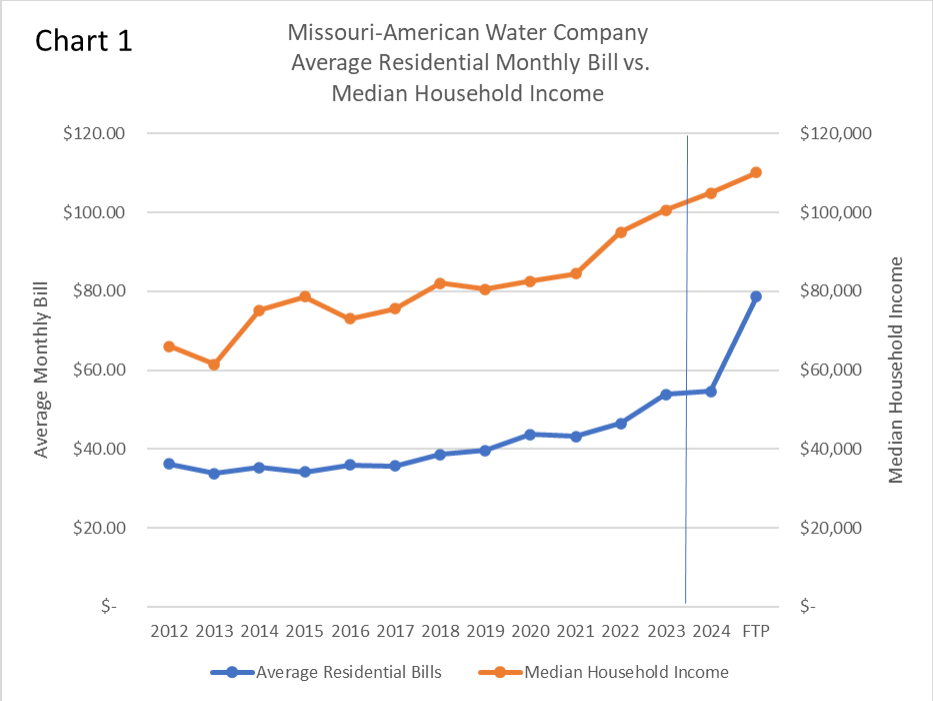
Q. How do you determine MHI for the customers in the Company's service territory

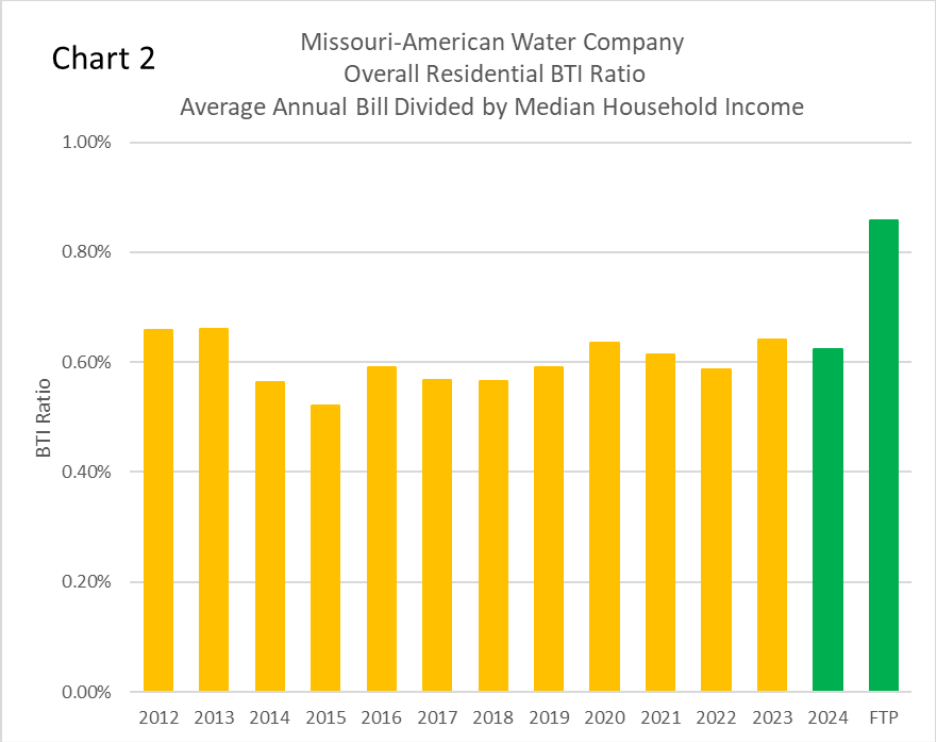
A. The MHI for the Company's service territory is a weighted average of the number of customers the Company serves in each community in the service territory and the median household income in each of those communities for owner-occupied and single-unit, renter-occupied homes as reported by data in the ACS based on the most recent year's available data (2022 in this proceeding). The relationship between this service territory–

specific figure and the MHI for the State of Missouri for 2022 (also provided at the community level through the ACS) is then applied to historical MHI data for the State of Missouri to arrive at historical MHI data for MAWC's service territory. This calculation is done separately for water and wastewater service territories.

Q. What are the results of your Enterprise-Level analysis of affordability for water service?

A. The charts below compare historical average monthly water bills to MHI for Missouri-American water customers from 2012 through 2023 stated in absolute terms and stated in terms of BTI Ratio, along with estimated average monthly bills under the Company's proposed rates in this case and estimated MHI for Missouri-American water customers during the Future Test Year. The data shows that the BTI Ratios for water service for Missouri-American water customers have held steady at approximately 0.6% from 2012 through 2023. The BTI Ratio at the median income level is expected to be 0.86% under the Company's proposed final rates.

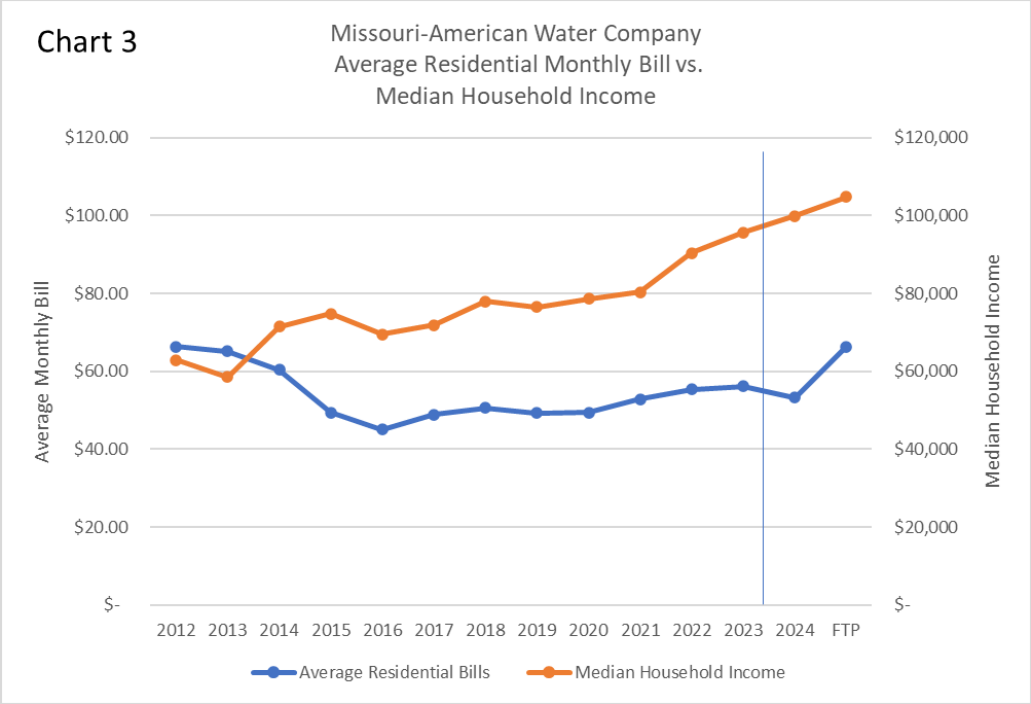


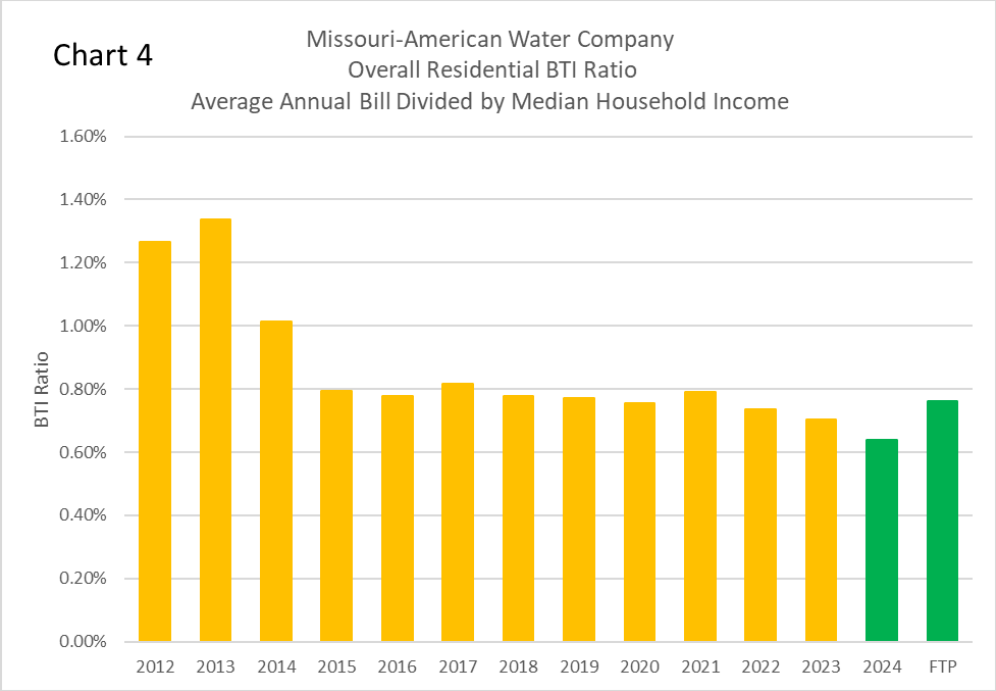


Q. What are the results of your Enterprise-Level analysis of affordability for wastewater service?

A. The charts below compare historical average monthly wastewater bills to MHI for

Missouri-American water customers from 2012 through 2023 stated in absolute terms and stated in terms of BTI Ratio, along with estimated average monthly bills under the Company's proposed rates in this case and estimated MHI for Missouri-American water customers during the Future Test Year. The data shows that the BTI Ratios for wastewater service for Missouri-American water customers have held steady and have declined slightly in the 2015-2023 timeframe falling from 0.79% in 2015 to 0.70% in 2023. The BTI Ratio at the median income level is expected to be 0.76% under the Company's proposed final rates.





Q. Is there a generally accepted standard for the affordability of water and wastewater service expressed as a percentage of MHI?

A. There is no definitive standard for affordability as a percentage of MHI. Benchmarks for affordability expressed as a total bill's percentage of MHI is a policy decision. However, bills that are less than 2.0% or 2.5% of MHI for water and 4.0% to 4.5% of MHI for combined water/wastewater are considered "affordable" by some.[1]

Q. In your opinion can the assessment of affordability of service be reduced to a yes or no question

A. No, the affordability of water or wastewater service will never be that simple. One can generally measure average bills against any given benchmark and come up with a yes or no answer, but affordability of service is a continuum, and that is what the Company's

[1] Teodoro, Manuel P., "Measuring Household Affordability for Water and Sewer Utilities," Journal AWWA (2018), doi:10.5942/jawwa.2018.110.0002

Community-Level Analysis, which I describe next in my Direct Testimony, shows. There will always be customers for whom water service is more affordable than for others depending on demographics and income levels. This is true across all of the communities that MAWC serves, including even the wealthiest communities that the Company serves.

c. Community-Level Analysis

Q. Please describe the Company's Community-Level Analysis of affordability of service

A. The Community-Level Analysis takes a deeper dive into the affordability of water and wastewater service at a local level across different customer demographics and proposed rates for each community that the Company serves. For larger communities, the analysis is done at a zip-code level.

Q. What is the purpose of this Community-Level Analysis

A. The purpose of the Community-Level Analysis is to estimate the percentages of household income that bills for water and wastewater service are expected to take up under the Company's proposed rates for various groups of customers, and to identify demographic trends either by geographic location or by income level for customers where affordability of service may be an issue based on BTI Ratios measured at the individual household level.

Q. How is this analysis different from the Enterprise-Level Analysis you previously presented?

A. The Enterprise-Level Analysis and the Community-Level Analysis are two different but complementary views of affordability. As previously stated, the purpose of the Enterprise-Level Analysis is to provide a high-level historical perspective on how the affordability of service has been trending over time and how it is expected to continue to trend under proposed rates. The Community-Level Analysis takes a deep dive into the affordability of

service at the individual level under current or proposed rates and current economic conditions.

Q. Is there academic research that supports the Company's approach to assessing affordability of service at this detailed level?

A. Yes. Cardoso and Wichman outline a framework for assessing affordability of water service that uses the full distribution of household income at the local level rather than MHI or some other static representative level of income and uses varying levels of water usage at the individual household level instead of a static representative level of water usage.[2] While my methodology differs from Cardoso and Wichman in certain areas, the goal remains the same, which is to analyze affordability at the individual customer level and identify customer groups where affordability of service may be an issue

Q. What information is needed to conduct an analysis of the affordability of service at this detailed level?

A. The following information is used to assess affordability of service at the community and individual customer level:

- The number of customers served in each community.
- The distribution of owner-occupied households and renter-occupied households by income level in each community.
- The percentage of occupied housing units that are owner-occupied households or renter-occupied households that are not in multi-dwelling buildings in each community.

[2] Cardoso, Diego S. and Wichman, Casey J., "Water Affordability in the United States," Water Resources Research, vol. 58, issue 12 (2020).

- The average number of persons per household in each community for both owner-occupied and renter-occupied households.
- The distribution of the size of households (one-person, two-person, etc.) for households of different income levels.
- The standard definition of Basic Water Service.
- Current or proposed rate structures.

I will return to the Community-Level Analysis after I discuss the concept of Basic Water Service.

Q. Please describe the concept of Basic Water Service.

A. Basic Water Service is a water usage level that reflects water consumption used day in and day out for basic human services (cooking, cleaning, sanitation, and general health requirements), which is then assumed to be constant from month-to-month and not subject to significant seasonality or weather conditions. This standard can be expressed in terms of gallons per resident per day. This service is different from discretionary seasonal water usage for filling swimming pools, lawn irrigation, etc. This definition of Basic Water Service can be used to customize a level of usage that accurately reflects water service for different sizes of households.

Q. How do you define Basic Water Service for the purposes of your Community-Level affordability analysis?

A. For the purpose of the Company's affordability analyses, Basic Water Service is defined to be 50 gallons of water per household member per day. This figure is based on the review of relevant literature on the subject and a review of Company billing data for residential customers in months with minimum levels of discretionary water usage, all of which

supports the definition of 50 gallons of water per household member per day.

Q. Why do you define Basic Water Service as gallons of water per household member per day instead of just using a static level of water usage to apply to all customers?

A. As I explain above, Basic Water Service reflects the level of water consumption for basic human services. As such, a per person consumption level better aligns with the consumption used for such purposes than a static amount per household that does not account for the individuals in that household or for potential outdoor usage.

Q. Why is this definition of Basic Water Service also suitable for wastewater analysis?

A. The definition of Basic Water Service at 50 gallons per household member per day is also suitable for wastewater analysis because wastewater billings are based on the same type of service that Basic Water Service is meant to represent, namely water consumption for basic human services (e.g., cooking, cleaning, sanitation, and general health requirements). All of this service is effectively returned through the wastewater collection system and, therefore, the definition of Basic Water Service serves as an appropriate benchmark for analysis of affordability for wastewater service.

Q. What information does your Community-Level Analysis provide?

A. The Company's Community-Level Analysis provides a complete set of demographic information for the Company's customer base in each community and a set of affordability data for its service territory in total and for various cross sections of the Company's customers.

Q. What demographic information does your Community-Level Analysis rely upon?

A. The demographic information provided by this analysis is primarily economic in nature, although the analysis can be expanded to provide information on various identifiers such

as race, languages spoken, etc. The primary demographic (economic) information provided by the analysis is the estimated number of customers at different levels of the Federal Poverty Level ("FPL") and at different levels of household income. FPL is a measurement set by the U.S. Department of Health and Human Services of the minimum amount of annual income that is needed for individuals and families to pay for essentials, such as room and board, clothes, and transportation. The FPL considers the number of people in a household, their income, and the state in which they live. For Missouri, the FPL guidelines for 2024 are set at $15,060 for a household size of one and $5,380 per year for each additional household member.

Q. What information does your Community-Level Analysis show?

A. Charts 5 and 6 below show, for both water and wastewater service, the relationship between residential customers' bills for Basic Water Service under the Company's proposed rates and level of household income.

Chart 5

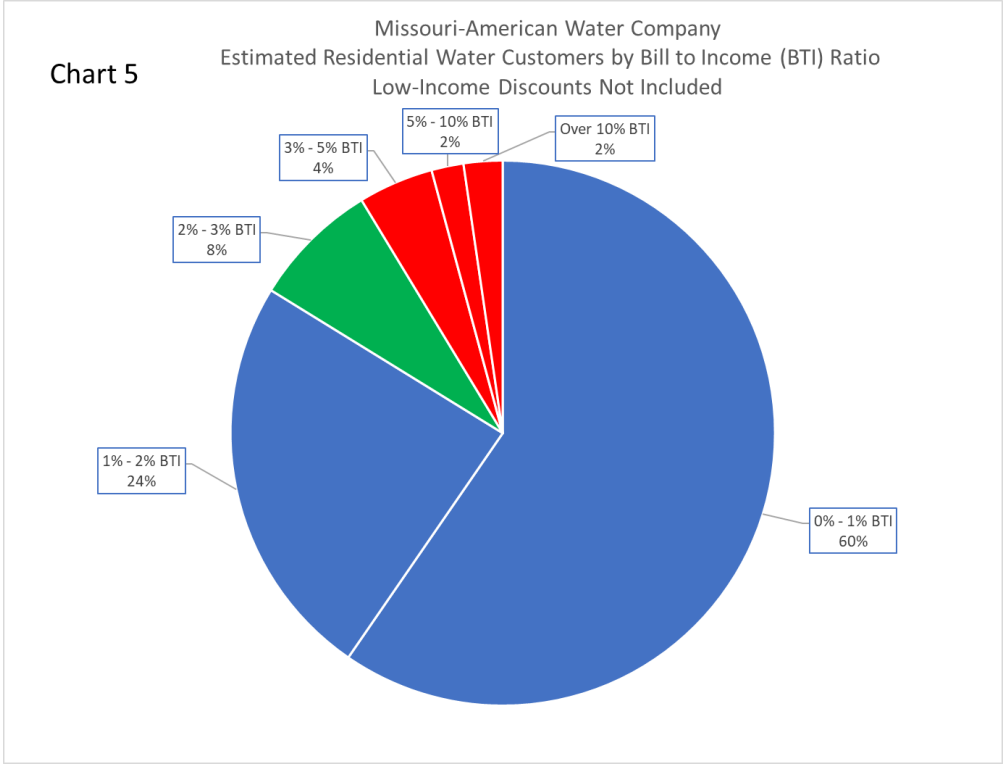
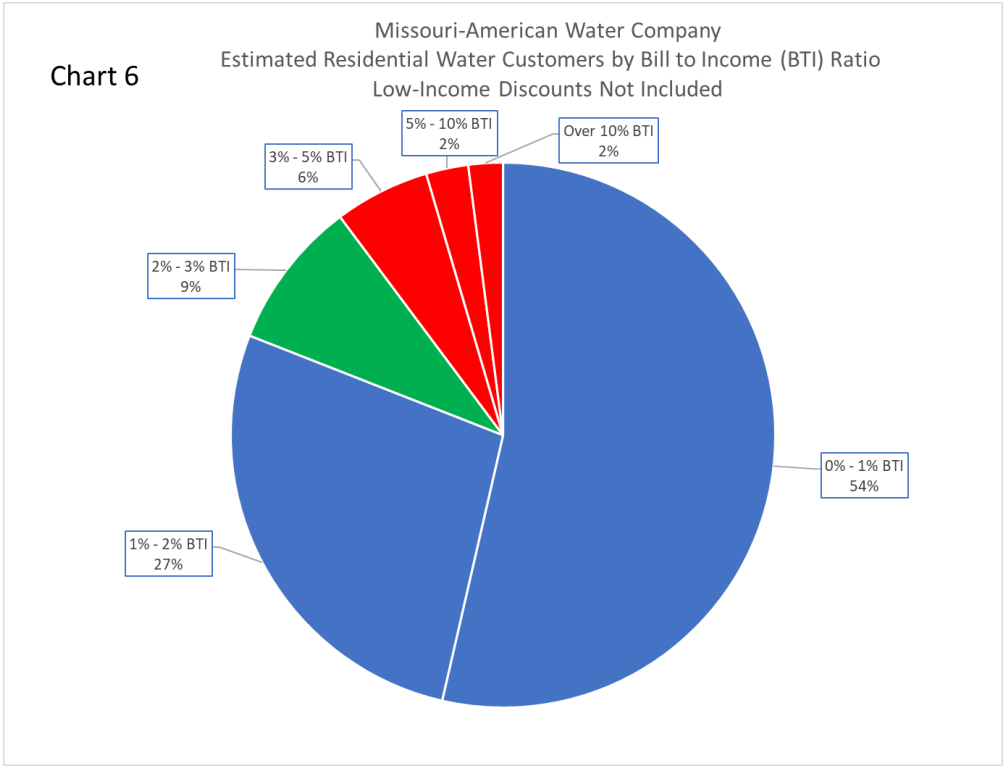


Chart 6



These charts show that under the Company's proposed rate structure, the Affordability Index metric (discussed below) for the Company's service territory in total is 84% under

proposed rates for water service and 81% under proposed rates for wastewater service, meaning that 84% of our residential water customers and 81% of our residential wastewater customers can expect to see bills for Basic Water Service to be less than 2% of their household income. The Company estimates that there are approximately 71,900 residential water customers and 4,300 wastewater customers that will see bills for Basic Water Service above 2% of their household income, which is approximately 16% and 19% of the total customer population for water and wastewater service, respectively.

Q. Please describe the Affordability Index.

A. The Affordability Index ("AI") is a metric that reflects the percentage of a group of customers for whom Basic Water Service is expected to be less than a given percentage of annual household income. Consistent with my previous discussion in testimony regarding standards for affordability, the Company uses 2% of household income as the benchmark for this metric, which is at the conservative end of the range of affordability often cited. As an example, if, for a certain group of customers, it is estimated that 80% of those customers will have bills for Basic Water Service less than 2% of annual household income, the AI value for that group of customers is 80%.

The AI metric is designed to reflect the percentage of residential customers in a state, community, or demographic group for whom Basic Water Service is expected to cost 2% or less of annual household income. An AI value of 100% means that all customers within a selected group can expect Basic Water Service at less than 2% of annual household income. An AI value of 70% means that approximately 70% of customers within a selected group can expect Basic Water Service at less than 2% of annual household income, and 30% of customers in that group can expect Basic Water Service to cost more than 2% of

annual household income. The AI value is calculated based on modeling of proposed rates and community-level demographic information that I previously described in my testimony, which assesses affordability across the entire range of customer demographics in each community we serve.

Q. Why do you use 2% of annual household income as your benchmark for affordability service?

A. The 2% benchmark is generally consistent with industry standards for affordability at the individual household level and is slightly lower than the 4.5% benchmark for combined water and wastewater service used by Cardoso and Wichman.[3]

Q. Do you have information on the Affordability Indices of service by income group?

A. Table 1 below shows AI values for the Company's residential customers by income level for water and wastewater service.

TABLE 1
Affordability Index by Income Level

	Water	Wastewater
Over $150k	100%	100%
$100-$150k	100%	100%
$75-$100k	100%	100%
$50-$75k	96%	100%
$35-$50k	80%	48%
$25-$35k	58%	36%
$20-$25k	34%	4%
$15-$20k	0%	0%
$10-$15k	0%	0%
$5-$10k	0%	0%
$0-$5k	0%	0%

[3] Cardoso, Diego S. and Wichman, Casey J., "Water Affordability in the United States," Water Resources Research, vol. 58, issue 12 (2020).

Q. Does your analysis consider customers who rent in multi-family buildings without individual meters?

A. No. The Company's Community-Level Analysis only considers customers that are assumed to be direct customers of the Company, meaning that they are directly responsible for payment of services to the Company. Direct customers are assumed to be owner-occupied households and single-family, renter-occupied households as reported by ACS data.

Q. Why does your Community-Level Analysis only concentrate on customers that are direct customers of the Company

A. The Company's affordability analysis concentrates on customers that are direct customers of the Company for two reasons:

- The use of an MHI statistic, which best estimates household income for direct customers of the Company, is consistent with the calculation of the average bill, which is also based on direct customers.
- For indirect customers of the Company (e.g., renters in multi-family buildings), it is impossible to know definitively what these households pay in rent for water or wastewater service. Presumably, building owners that receive water and/or wastewater service from MAWC are recovering those costs through rents, but there is no way to know if owners are overcharging or undercharging renters or if they are also charging renters for building water or wastewater service that renters are themselves not actually using.

Q. Will the Company's proposed change in rates have an impact on people who use the

Company's service but are not direct customers of the Company?

A. It is impossible to know what the impact of the Company's proposed rates will be on indirect customers of the Company. Rents may increase in part to recover increases in water service costs, but rents increase for many reasons, and the extent to which any increases can be attributable to the Company's proposed rates and the timing of such increases cannot be determined.

d. Conclusion

Q. How is this affordability information useful?

A. Assessing affordability information of water and wastewater service for the entire residential customer population can demonstrate whether customers, in general, are having or would have difficulty paying their bills under the Company's current or proposed tariff structure. Assessing affordability information of water and wastewater service for lower-income customers can indicate the number of customers that may be having trouble paying their utility bills, where the customers are in the Company's service territory, and the extent to which those bills may pose challenges for certain customers. This can, in turn, inform decision-makers about the size and scope of efforts that may be needed to help these vulnerable customers better afford water and wastewater service, both in terms of general rate design proposals that can reduce the cost of Basic Water Service for all customers, including lower-income customers, and customer assistance programs that may include customer grants, tariff discounts, levelized billing, and outreach programs.

Q. What conclusions do you draw based on the Company's Enterprise-Level and Community-Level Affordability studies?

A. As noted above, there are three conclusions that can be drawn from the Company's

affordability study:

- The affordability of the Company's water and wastewater service from 2012 through the Future Test Year indicates that the way the Company has invested in and managed its water and wastewater systems has indeed been for the long-term benefit of our customers.
- The Company's water and wastewater service has been, is, and is expected to continue to be affordable for the majority of its residential customers, including under the rates proposed in this case.
- There are, however, groups of customers for whom affordability of water and wastewater service may be challenging.

Q. How do the Company's affordability analyses and mitigation strategies enhance the value of the Company's water and wastewater service?

A. All stakeholders (regulators, customers, consumer advocates, community leaders, employees, shareholders, etc.) benefit from a financially sound utility providing safe, reliable, and affordable service to its customers. The Company's analyses provide important insights into the affordability of its services and can help inform all stakeholders on strategies for improving affordability for customer groups that may be struggling financially.

III. UNIVERSAL AFFORDABILITY TARIFF

a. Introduction

Q. Does the Company currently have a low-income discount tariff in place for MAWC residential customers?

A. No, it does not.

Q. Is the Company proposing a low-income discount tariff in this proceeding?

A. Yes. The Company is proposing to offer a Universal Affordability Tariff ("UAT") which would provide discounted rates to participating customers that would assist with the affordability of water service for lower income customers.

b. Description of the Program

Q. Please describe the Company's proposed UAT.

A. The Company's proposed UAT for water service that includes multiple tiers of discounts based on different levels of household income stated as multiples of Federal Poverty Level ("FPL"). The tariff offers discounts on both the basic 5/8" meter charge and the volumetric charges for water service. The Company's proposed discount schedule is as follows:

TABLE 2 ***Household Income***	**Water Basic Service Discount**	**Water Volumetric Discount**
0% - 50% FPL	75%	75%
51% - 100% FPL	55%	55%
101% - 150% FPL	25%	25%

For 2024, the household income levels that would qualify customers for this program are as follows:

TABLE 3 ***Household Size***	**Household Income at 50% FPL**	**Household Income at 100% FPL**	**Household Income at 150% FPL**
1	$7,530	$15,060	$22,590
2	$10,220	$20,440	$30,660
3	$12,910	$25,820	$38,730
4	$15,600	$31,200	$46,800
5	$18,920	$35,580	$54,870
6	$20,980	$41,960	$62,940
7	$23,670	$47,340	$71,010

Q. What is the driving principle behind the Company' new UAT?

A. The driving principle behind the Company's proposed UAT is to provide all participating customers discounts such that the expected bill for Basic Water Service (50 gallons of water per household member per day) will be no more than 2% of their annual household income.

Q. Why is the Company proposing this new UAT?

A. The Company recognizes through the affordability analysis I have previously described in my testimony that there will always be groups of customers that will have issues with the affordability of water service, regardless of the level of rates approved in this proceeding. The Company's proposed UAT along with the tariffs proposed for general water service in this proceeding will provide every Missouri-American water service customer access to pricing tools that are designed to help ensure that the cost of Basic Water Service will be no more than 2% of their annual household income.

Q. What is the total number of customers that would be eligible for discounts under the Company's proposed tariff?

A. The Company estimates that there are approximately 69,500 water customers with household incomes at or below 150% of FPL that would qualify for service under the Company's proposed UAT.

TABLE 4 ***Household Size***	**Estimated Customers 0%-50% FPL**	**Estimated Customers 50%-100% FPL**	**Estimated Customers 100%-150% FPL**
1	6,423	9,257	11,231
2	4,161	5,218	8,800
3	1,754	2,523	3,922
4	1,392	2,442	3,846
5	718	1,552	2,403

6	305	829	1,072
7	223	657	794

Q. How is the Company proposing to recover the costs of this program?

A. The recovery of the cost of the Company's proposed UAT tariff are discussed by Company Witness LaGrand.

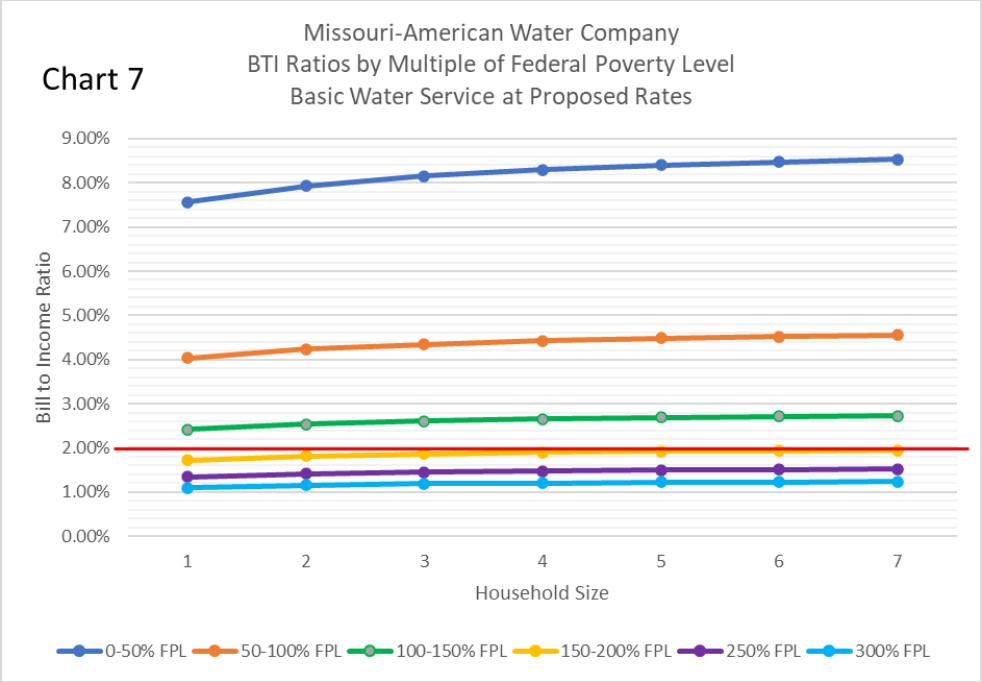
Q. Are you sponsoring the Company's proposed UAT tariff in this proceeding?

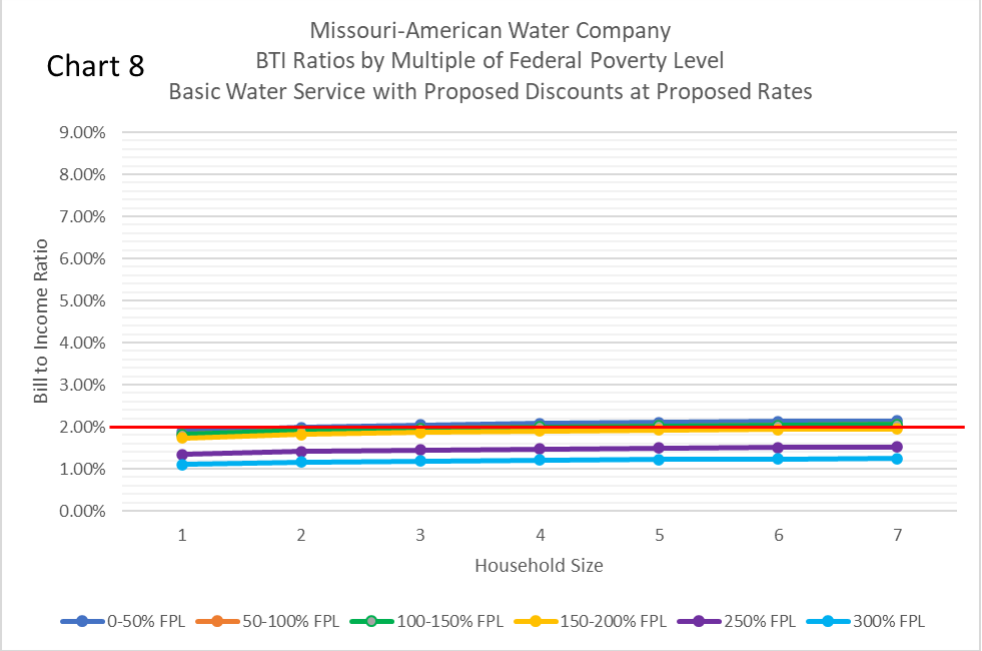
A. Yes. A copy of the Company's proposed UAT tariff is provided in Schedule CBR-3.

c. Customer Impacts

Q. What impact will this proposed tariff have on the affordability of water service for lower-income customers?

A. The impact for customers associated with the proposed tariff will be significant. The charts below show expected bills for Basic Water Service as a percentage of household income for different household sizes and household incomes expressed as a percentage of FPL both before and after the Universal Affordability Tariff is applied based on proposed rates in this case.





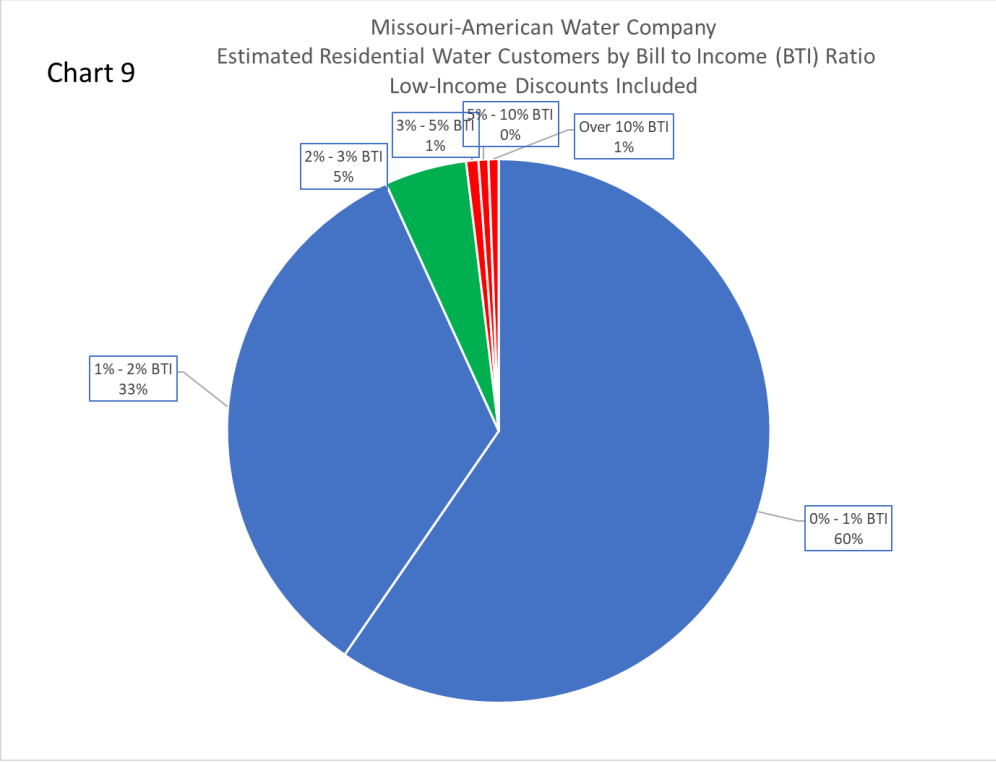
These charts show that under final proposed rates, bills for Basic Water Service are expected to be between 7% and 9% of household income for customers with incomes at 50% of FPL or below, and are expected to be between 4% and 5% of household income for customers with incomes between 50% and 100% of FPL Under the Company's

proposed discounts, participating customers in all household income levels can expect to see Basic Water Service at approximately 2% of household income or less.

Q. What impact will this program have on the overall affordability of water service for MAWC's residential customers?

A. The chart below shows the relationship between residential customers' bills for Basic Water Service under the Company's proposed rates and level of household income with low-income discounts included. This chart provides the exact same information as Chart 3 earlier in my testimony but with low-income discounts included and assumed full participation in the program by all eligible customers.

Chart 9



This chart shows that with low-income discounts included and at full participation, the overall level of affordability of service to MAWC's customers improves dramatically. The overall Affordability Index for water service improves from 84% to 93% and 2.0% of

customers can expect to see bills for Basic Water Service at more than 5% of household income compared to 8.7% before discounts. The table below shows the percentage of customers for whom Basic Water Service is expected to take different levels of household income both before and after application of the Company's proposed low-income tariff.

TABLE 5 ***Bill To Income Ratio***	**Percentage of Customers Before Discounts**	**Percentage of Customers After Discounts**
0% - 1%	59.6%	59.6%
1% - 2%	24.2%	33.6%
2% - 3%	7.5%	4.9%
3% - 5%	4.5%	0.7%
5% - 10%	1.9%	0.6%
Over 10%	2.3%	0.6%

d. Rationale for the Program

Q. Is there a cost-based justification for the Company's proposed Universal Affordability Tariff?

A. Yes, there is.

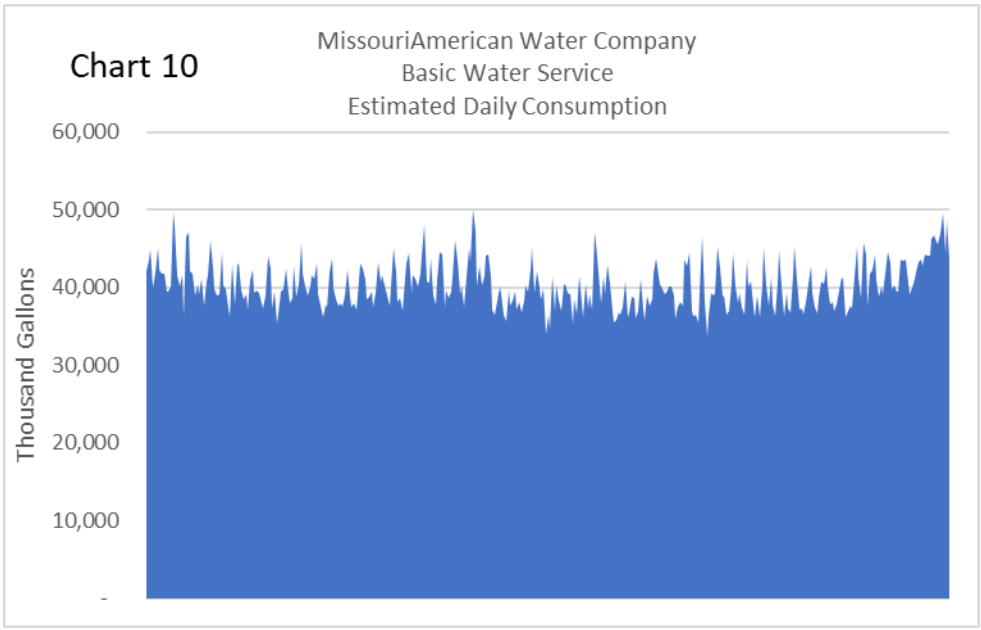
Q. Please explain.

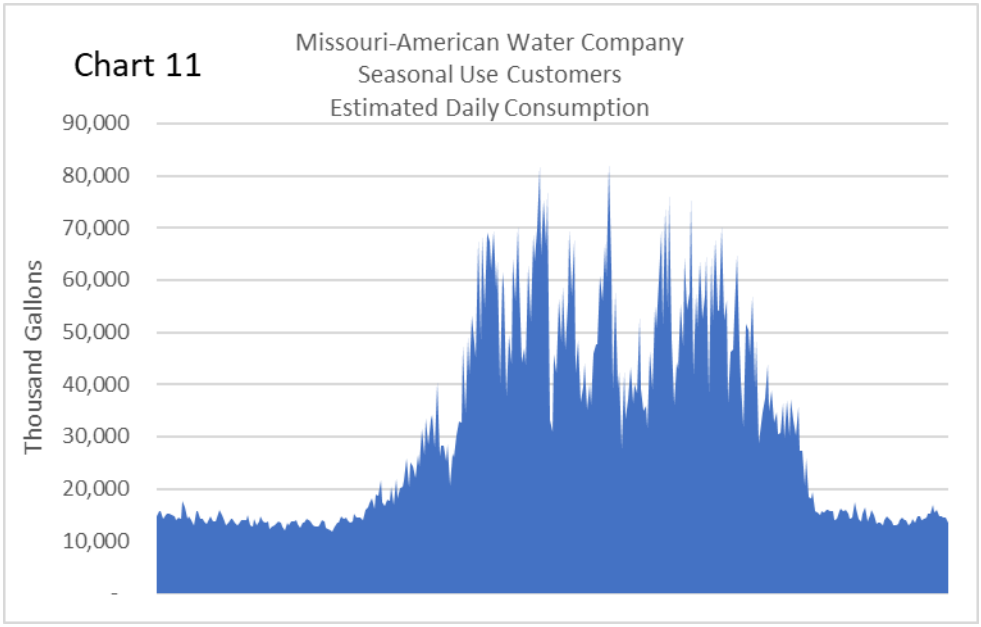
A. Across the American Water footprint, usage data and customer demographic data shows that there is a positive correlation between household income and the seasonal use of water, meaning that communities with higher household incomes, and by extension the customers in those communities, generally have more discretionary seasonal use of water than communities with lower household incomes. Lower income customers generally don't use water for discretionary purposes in the summertime to the extent that higher income customers do and generally only use Basic Water Service as I have described it previously

in my testimony.

Q. Is there a fundamental difference between Basic Water Service and Seasonal Service from a cost perspective?

A. Yes. The charts below show daily consumption patterns for residential customers who use Basic Water Service and residential customers who use more seasonal discretionary water. These charts are derived from advanced metering infrastructure ("AMI") data in states where American Water has AMI in place that are used to develop the cost of service allocators that are in the cost of service analysis sponsored by Company Witness McClellan. Chart 10 shows a daily consumption profile for 2023 for residential customers whose usage is flat and constant throughout the year. This group of customers has very little seasonal usage. The sawtooth pattern in this chart represents increased usage on weekend days relative to weekdays, which is a typical pattern for residential customers. Chart 11 shows a daily consumption profile for 2023 for residential customers whose usage is much more seasonal. This group of customers represents those whose average summer monthly usage is at least 20% higher than their average winter monthly usage. The sawtooth pattern is also present in this chart in the non-summer months, but the primary feature of this chart is the seasonal nature of the consumption pattern for these customers.





Q. What do these charts show in terms of cost causation, cost of service, and relative pricing for these groups of customers?

A. The biggest driver of cost of service allocations to customer class for the purposes of setting rates is consumption patterns, and the consumption patterns for these two groups of customers are obviously very different. The Base/Extra allocation methodology for cost

of service, which is described in more detail by Company Witness McClellen, is widely regarded as the industry standard, is effectively designed to reward load factor (or capacity factor). This means that steadier flatter consumption patterns are allocated less cost per gallon of water served than consumption patterns that are peakier or more seasonal. This makes logical sense, in that the cost of investments used to serve higher amounts of water can be spread over a larger usage base with a resulting lower volumetric rate than the same cost of the same size investment that serves smaller amounts of water because the investment is not utilized as efficiently.

Q. What does this imply about the cost of providing service to Basic Service Water customers compared to seasonal use customers?

A. These relationships show that from a cost causation perspective, it is cheaper on a per unit basis to provide Basic Water Service than it is to provide peakier seasonal service. It is, therefore, entirely appropriate from a cost of service perspective that Basic Water Service should be priced at a lower rate than seasonal water service.

Q. Have you done an analysis of the relative cost of providing service to seasonal use customers and basic service customers?

A. Yes. Schedule CBR-3 provides a partial cost of service analysis of the allocated revenue requirements to residential customers for Source of Supply, Pumping, Treatment, Transmission, Distribution, and Storage functions as presented in the cost of service analysis presented by Company Witness McClellan broken down into seasonal use customers and basic water service customers. This analysis takes the revenue requirements allocated to the residential class in Mr. McClellan's cost of service analysis and further allocates them into the Seasonal Use and Basic Water Service subgroups I previously

identified. Maximum day and maximum hour peaking factors used to allocate these costs are derived from the AMI data used to generate the daily (and hourly) consumption patterns shown in the charts above. The results of this analysis are summarized in the table below:

TABLE 6 Residential Cost of Service	**Maximum Day Peaking Factor**	**Maximum Hour Peaking Factor**	**Allocated Revenue Requirement**	**Cost per Thousand Gallons**
Seasonal Use	2.66	9.61	$175,231,676	$15.60
Basic Water Service	1.24	2.76	$94,754,282	$6.45

This table shows that the allocated cost for 1,000 gallons of providing service for the production, transmission, and delivery functions to seasonal use customers is more than twice the cost of providing the same service to Basic Water Service customers. This difference in cost of service is related entirely to the differences in consumption patterns for these two groups of customers which is clear from the charts shown above and is a direct result of the maximum day and maximum hour peaking factors being higher for the seasonal use group than for the Basic Water Service group.

Q. You mentioned previously in your testimony that there is a relationship between seasonal water usage and household income.

A. Yes. As I mentioned previously, data across the American Water footprint and specifically in the Missouri-American service territory shows that there is a positive correlation between household income and the seasonal use of water. This means that higher income households are more likely to have significant amounts of seasonal discretionary water use in the summertime and lower income households are much less likely to have significant amounts of seasonal water use and are therefore more likely to be Basic Water Service customers.

Q. Is this true also for Missouri-American's residential customers?

A. Yes, it is.

Q. Have you done an analysis of usage patterns for the Company's residential customers that correlate usage characteristics to household income?

A. Yes. This analysis uses information provided in the affordability analysis I previously discussed in my direct testimony to break down the Company's residential customers into three different subgroups based on median household income in the different communities the Company serves. These groups are as follows:

- High Income Group: Customers in communities or zip codes with median household incomes greater than $100,000 per year.
- Middle Income Group: Customers in communities or zip codes with median household income between $50,000 and $100,000 per year.
- Low Income Group: Customers in communities or zip codes with median household incomes less than $50,000 per year.

The table below shows summary statistics for each of these income groups:

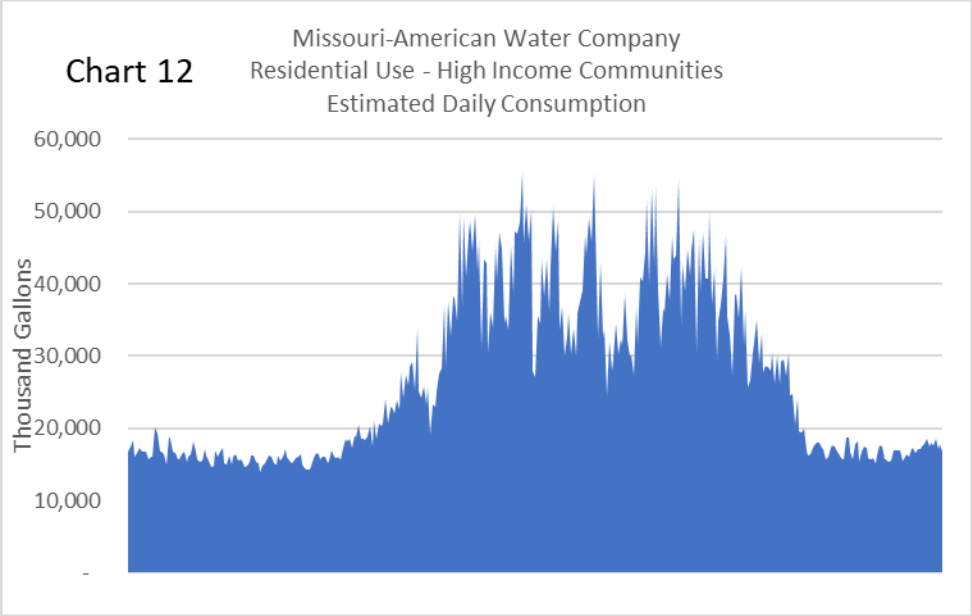
TABLE 7 Residential Customers by Income Group	**Total Customers**	**Percentage of Customers that are Seasonal**	**June-October Use per Seasonal Customer**
High Income	113,866	48%	184,370
Middle Income	274,819	24%	103,560
Low Income	46,032	15%	76,540

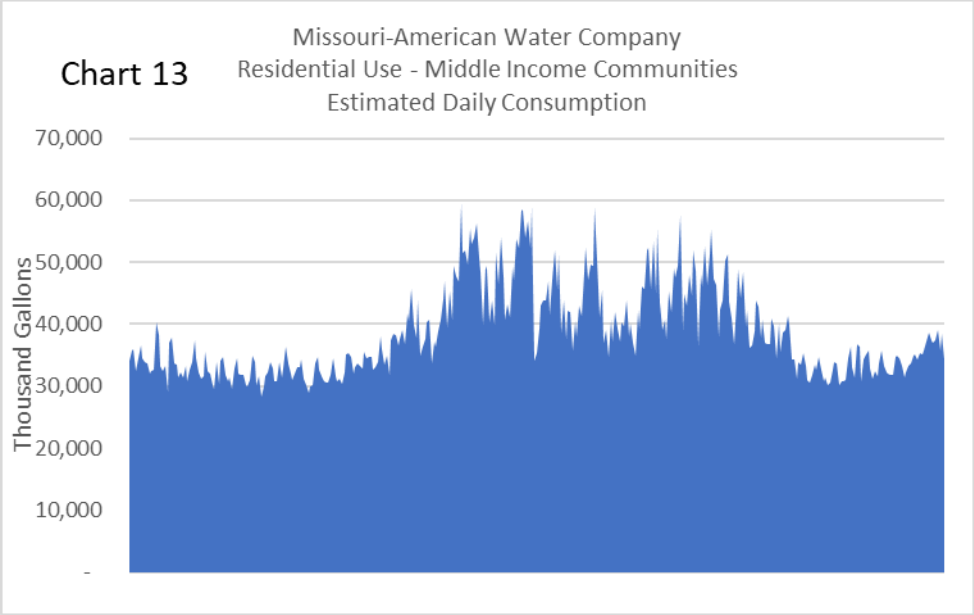
The data shows that residential customers in high income communities tend to be seasonal use customers at a significantly higher rate than residential customers in low income

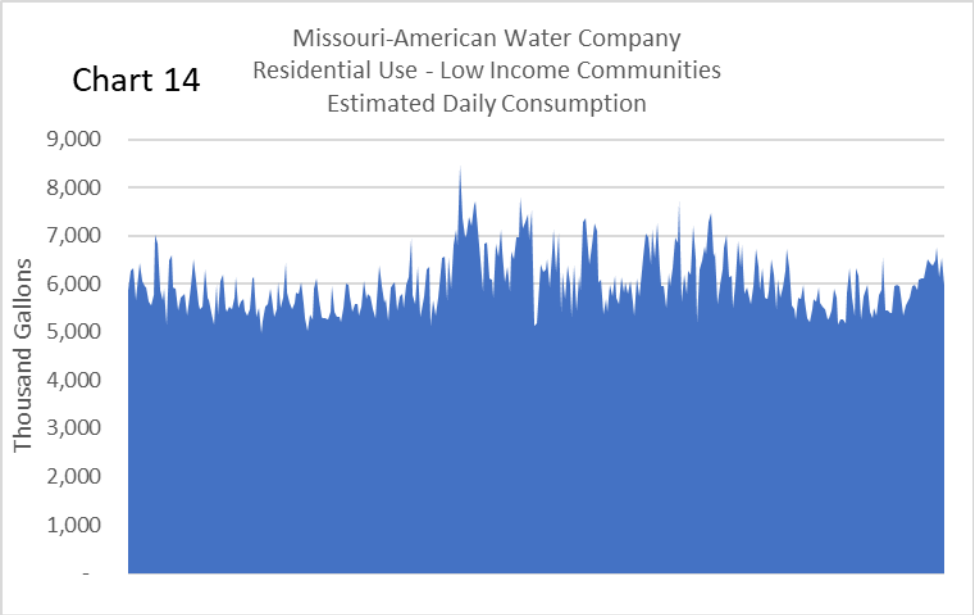
communities (48% versus 15%), and that seasonal use customers in high income customers use more than twice the amount of water than seasonal use customers in low income communities (184,370 gallons per month vs 76,540 gallons per month).

Q. Have you developed AMI-based consumption patterns for customers in these income subgroups similar to the AMI-based consumption patterns you previously showed for seasonal use and Basic Water Service?

A. Yes. The charts below show Estimates of any water consumption for residential customers in these three subgroups which again are based on AMI data in states where American Water has AMI in place that are used to develop the cost of service allocators that are in the cost of service analysis sponsored by Company Witness McClellan.







The charts show that daily consumption over the course of the year tends to be more seasonal and more peaky in communities with higher incomes then in communities with lower incomes, which is consistent with the monthly usage characteristics for customers in these communities. Just as with the analysis of seasonal use versus Basic Water Service, these differences in consumption patterns will lead to a higher cost of service on a dollars per thousand gallon basis in higher income communities than for lower income

communities.

Q. Have you done an analysis of the relative cost of providing service to customers in these different income subgroups?

A. Yes. In addition to the analysis for seasonal use and Basic Water Service customer groups, Schedule CBR-3 provides a partial cost of service analysis of the allocated revenue requirements to residential customers for Source of Supply, Pumping, Treatment, Transmission, Distribution, and Storage functions as presented in the cost of service analysis presented by Company Witness McClellan broken down into the income subgroups I've described based on the estimated daily (and hourly) consumption pattern for customer in these communities. The results of that analysis are summarized below:

TABLE 9 Residential Cost of Service	**Maximum Day Peaking Factor**	**Maximum Hour Peaking Factor**	**Allocated Revenue Requirement**	**Cost per Thousand Gallons**
High Income Group	6.85	2.09	$135,721,292	$14.02
Middle Income Group	3.37	1.54	$118,888,348	$8.46
Low Income Group	1.80	1.41	$15,376,318	$7.01

This table shows that the allocated cost for 1,000 gallons of providing service for the production, transmission, and delivery functions to customer in the high income group is double the cost of providing the same service to customers in the low income group. Just as with seasonal use versus Basic Water Service, this difference in cost of service is related entirely to the differences in consumption patterns for these two groups of customers which is due to the different mix of customers in these communities, the prevalence of seasonal use customers as a percentage of the total community, and the extent to which those customers have higher usage in summer months.

Q. What does this all say about subsidization of service between lower income customers and higher income customers.

A. If a) seasonal water service is more expensive on a per unit basis to serve than basic water service from a cost of service and cost causation perspective, b) higher income customers are more likely to have significant higher cost seasonal water use than lower income customers, and c) a single volumetric rate applies to all service for all customers, both Basic Water Service and seasonal service as is the case in the Company's service territory, the result is that lower income customers are actually subsidizing higher income customers under the Company's current rate design. This perspective provides the foundation for the development of the Universal Affordability Tariff.

Q. Based on this information, do you believe it is unreasonably discriminatory to offer a special discounted rate to lower income customers.

A. No. While there will always be times in rate design where the rates charged to customers are different than cost of service would indicate for a variety of reasons, it is certainly not discriminatory to offer lower income customers a reduced rate relative to the rate that is charged to the population in total based on an analysis of actual usage patterns and demographics. This rate is absolutely justified from the perspective of cost of service and cost causation.

Q. What is the justification for offering a Universal Affordability Tariff?

A. As I discussed previously in my testimony, lower income customers that do not use water for seasonal discretionary purposes are actually subsidizing higher income customers that do use water for seasonal discretionary purposes. It therefore cannot be credibly asserted that a discount tariff that reduces costs for lower income customers is an undue subsidy.

To the contrary, it is helping to reduce a subsidy that already exists in the other direction. The Company's affordability assessment, rate design analysis, and cost of service analysis provides the Commission all of the factual support necessary to target bills for all residential customers at 2% of household income or less without unduly discriminating against any customer group. All stakeholders benefit from a financially stable utility providing safe, reliable, and affordable service to its customers and it is in the public interest to implement a rate design package that makes water service affordable for as many customers as possible. The Company's proposed rate design in this case, along with the Company's proposed Universal Affordability tariff, does just that.

IV. REVENUE STABILITY

a. Description of Proposal

Q. What is a Revenue Stabilization Mechanism?

A. A Revenue Stabilization Mechanism ("RSM") is an accounting and ratemaking tool that is designed to align the Company's revenues going forward (i.e., beyond the conclusion of this proceeding) with the level of authorized revenue ultimately approved by the Commission. This mechanism stabilizes changes in revenues resulting from changes in volumes of water sold to customers on an ongoing basis due to factors largely beyond the control of the Company.

Q. How does an RSM work?

A. Generally speaking, the Company's proposed RSM will adjust rates up or down over time so that the revenue the Company collects is consistent with the revenue requirement approved by the Commission for water service in this proceeding. The RSM affords the Company with the ability to collect an annual revenue amount consistent with the

authorized revenue amount in this case and that customers in total pay the revenue level found appropriate to produce just and reasonable rates.

Q. Which customer classes are included in the RSM?

A. As described in Section 386.266.4, RSMo, the RSM would be applicable to water customers in the residential, commercial, OPA, and sale for resale classes.

Q. Which customer classes would be excluded from the RSM?

A. Industrial water customers and water customers taking service under contract rates. All wastewater customers would also be excluded.

Q. Do the revenues the Company collects under the WSIRA factor into the RSM?

A. No. The RSM only compares the water revenues for eligible customer classes authorized to be collected through base rates in the Company's rate case to the actual base rate water revenue collected from those customers in the eligible customer classes. The WSIRA mechanism already includes a reconciliation that essentially functions as an RSM. Revenues authorized and collected via WSIRA are not part of the RSM.

Q. How will the RSM that the Company is proposing generally function?

A. As I explain in greater detail later in this testimony, the RSM will compare water revenues for eligible customers authorized in a rate case to actual base water revenues collected from eligible customers, net of applicable production costs, and net of acquisitions that have not yet been through a general rate case.

Q. Why is the Company proposing that new acquisitions be excluded from the RSM?

A. As described in Section 386.266.5(1), RSMo, the Commission may approve RSM rate schedules provided it finds the adjustment mechanism "is reasonably designed to provide

the utility with a sufficient opportunity to earn a fair return on equity." When the Company acquires new systems, there are many costs incurred that are offset, sometimes only partially, by the revenues collected from those customers. If the revenues from acquisitions are included in the adjustment mechanism, the Company will incur these costs with no revenues to offset them. These incremental costs will reduce the Company's opportunity to earn a fair return on equity.

Q. Why is the Company proposing that the incremental production costs be included in the RSM?

A. Similarly to the discussion about acquisitions in the RSM above, excluding the incremental production costs would reduce the Company's opportunity to earn a fair return on equity. In the instance where the Company's RSM-actual revenues are more than what was authorized, the additional revenue will have been generated by increased water sales, which means that the Company's productions costs (i.e., costs related to treating and pumping that additional water) would be greater as well. Thus, to achieve balance, the additional revenues should be offset by any incremental production costs before being returned to the customers. If the additional revenues went to the RSM without being offset by the incremental production costs, the Company would be required to absorb those additional costs itself. In the reverse situation, where the Company's eligible revenues are less than what was authorized, the amount to be collected from customers via the surcharge would be at least partially offset by the Company's production cost savings resulting from the decreased water sales. Just as its not reasonable to ask the Company to absorb any incremental production costs due to increased sales, it would not be fair to customers to

collect the revenue shortfall from them, while not also including the benefit of the reduced expense.

b. Drivers of Need

Q. Of the total revenues collected under your proposed water rates, how much revenue is being collected through fixed charges and how much revenue is being collected through volumetric charges?

A. Total proposed water revenues equal $625,046,023. Of this amount, $156,493,465 is collected through fixed charges (25.0% of the total), $464,126,496 is collected through volumetric charges (74.3% of the total), and $4,462,062 is collected through miscellaneous fees (0.7% of the total).

Q. Is ongoing revenue volatility a significant concern?

A. Yes. Approximately 74% of the Company's water service revenues will be collected as volumetric rates pursuant to the Company's proposed rate structure in this case, which means that revenues will vary up or down depending on how much water our customers use. At the same time, over 90% of the Company's costs are fixed costs, which do not vary depending on how much water our customers use. If water sales are less than the levels used to set the Company's water service rates in this proceeding, the Company's revenues will be less than the authorized level in this proceeding, and as a result, the Company's ability to recover the costs that the Commission determines to be prudent will be diminished. Likewise, if revenues exceed the authorized level in this proceeding due to higher than anticipated water sales, the Company will recover more than the authorized level in this proceeding. The RSM will permit the Company to recover the level of revenue

authorized in this case, as the difference between that amount and actual revenues will be charged or credited back to customers in the subsequent year.

Q. What are the external factors that cause revenues to be volatile from year to year?

A. There are two primary factors that cause revenue volatility from year to year -- seasonal weather conditions and the ongoing trends in declining usage. Seasonal weather conditions can cause water sales to either increase or decrease from expected going-forward levels, which, in turn, cause revenues to increase or decrease from expected going levels. Hot dry summers tend to increase water sales, and cooler wetter summers tend to decrease water sales. Weather volatility in either direction causes volatility in revenues.

Continuing trends in declining use per customer in the residential class also causes volatility in revenues. I have previously testified to both the impact of weather conditions on annual water sales and on the continuing trends in declining use and the associated impact of declining use on water sales. It is expected that water consumption per customer will continue to decline over the next several years. Both of these conditions cause declines in revenues, and it is expected that both total consumption on a per customer basis, and revenue on a per customer basis will continue to decline well beyond the period of time for which a revenue requirement is approved and rates are set in this case.

Q. Does the Company have any control over either seasonal weather conditions or the drivers that are causing declining usage?

A. No, it does not.

Q. Are there other factors that can cause the Company's revenue to deviate from expected levels?

A. Yes. The COVID-19 pandemic situation is a prime example of an external event that can cause the Company's revenues to vary from expected or approved levels. Beginning in March of 2020, the Company saw increased sales volumes for residential customers beyond expected levels for a period of tune due to the COVID-19 pandemic, as more people were staying home from work and school. Over the same period, the Company saw decreases in sales volumes from expected levels in the commercial and OPA classes. These changes in volumes, whether temporary or permanent, cause changes in revenues from expected or authorized levels and increase the Company's revenue volatility. Implementation of a well-structured RSM can stabilize customer bills over time and mitigate the Company's revenue volatility due to circumstances beyond the customer or Company's control.

Q. Does the Company have the ability to reduce its costs when water sales are lower than expected to compensate for the reductions in revenues?

A. To some extent, the Company experiences a reduction in variable costs associated with the reduced cost of treating and pumping less water. For the most part, however, the Company's ability to reduce its fixed costs during periods when water sales are lower is limited, and it is generally not in the long-term best interests of our customers for the Company to do so. One simple example of this is employee counts. The Company can hardly hire and fire its well-trained workforce based on short-term trends in weather or economic conditions simply to keep expenses in line with revenues. Similarly, although maintenance could be deferred in a period of reduced revenue, that merely forestalls the inevitable, could degrade the quality of service provided to MAWC's customers, and increase the cost of service over time.

Q. Beyond changes in variable cost, does the continuing trend in declining use per customer reduce the revenue requirement needed to invest in, maintain, and operate the water system for the long-term benefit of the Company's customers?

A. No, it does not.

Q. Isn't the possibility of reduced revenues for the Company a good thing for customers because it means customers' water bills are lower than they otherwise would have been?

A. In the short term, that may appear to be the case. Ultimately, however, a decreasing revenue stream is not in the long-term best interest of our customers if revenue requirements are not reduced to match the decreasing revenue stream.

Q. How is a volatile long-term revenue stream not in the long-term best interests of the Company's water service customers?

A. The Company is committed to helping customers use water efficiently and to provide quality water service that is affordable. As I explain below, the Company's ability to reliably recover its revenue requirement over the long term through rates is an important part of the Company's ability to properly operate, maintain, and invest in the water system, at a reasonable cost. This ability to prudently manage the systems at a reasonable cost is in the long-term best interests of our customers. Company witnesses Derek Linam and Jody Carlson also provide direct testimony on the Company's capital investments.

Q. Will the RSM improperly shift revenue risk from the Company to its customers?

A. No. The RSM provides a mechanism that allows a sharing of revenue risk between the Company and its customers, allowing the Company to enjoy the benefits of revenue stability that the RSM affords while affording customers all of the price signals provided

through the rate design they currently take service under. There may be times when the RSM results in a surcharge and there may be times when the RSM results in a credit. Either way, there is "risk" in both directions that the totality of rate design will be higher or lower than base rates approved in this proceeding. Approving an RSM in this case does not shift risk in favor of the Company and to the detriment of its customers; it provides revenue and payment stability for both the Company and its customers.

c. Function

Q. Please describe how the Company proposes to implement the RSM.

A. The Company is seeking Commission approval of Authorized Revenues and production costs in this proceeding. Once approved, the RSM would then compare the Authorized Revenues to actual billed revenues for the residential, commercial, other public authorities (OPA) customer classes and Sale for Resale, and defer/accrue the difference, less the applicable change in production costs, on a monthly basis. Industrial customers would be excluded from the RSM. Production costs would include power, chemicals, purchased water, and water waste disposal (a percentage of usage for Industrial customers would be removed). The annual amount of metered revenues and the annual amount of expenses for all production costs would be prorated to monthly amounts. The Company proposes that the proration be set using the Company's last two years of system delivery to obtain a reasonable monthly amount of Authorized Revenues and production costs. These monthly amounts would be reset in the next base rate case proceeding.

Q. Please describe the specific accounting treatment for the RSM.

A. Each month the Company would compare the actual metered revenues for the applicable customer classes to the Authorized Revenues for the applicable classes. The Company

would also compare the actual production costs to the amount included in authorized rates for production costs associated with the applicable customer classes. If the actual revenues are less than the authorized revenues, the difference in the revenues less the production costs would be temporarily deferred to a regulatory asset. If the actual revenues are more than the authorized revenues, the difference in the revenues less the production costs would be temporarily deferred to a regulatory liability. The ending balance for each month would accrue interest at the Company's short-term borrowing rate.

Q. Please explain the RSM's reconciliation component.

A. Missouri-American proposes an annual reconciliation to occur at the end of each calendar year. The Company proposes to file the first reconciliation by January 30, subject to a 60-day review and approval period. The first filing will reconcile the revenues net of production costs, plus interest for the period when rates become effective through December 31, 2026. Each subsequent filing will be filed as described above but will reconcile the revenues for the entire preceding calendar year.

The Company proposes that any credit be issued as soon as administratively possible; the credit would be determined based on the number of customers at the time the credit is issued. A one-time credit that is equal to all customers would benefit the lower-usage customers at a greater percentage, rewarding customers who conserve water at a higher percentage than those that use more water.

Q. Could the RSM potentially result in both credits and surcharges to customers from year to year?

A. Yes, the RSM is symmetrical. Actual revenues can deviate from Authorized Revenues, because of inaccurate sales forecasts and weather. Other causes include improved water

and energy efficiency, customer conservation, customer growth or attrition, and changing economic conditions.

Q. Have you provided additional information concerning the operation of the RSM?

A. Yes, the proposed water RSM Tariff is attached for convenience to my Direct Testimony as Schedule CBR-5.

Q. Does the proposed tariff include provisions for an annual true-up (Section 386.266.5(2))?

A. Yes. Please refer to the tariff page for RSM (or Schedule CBR-5), which describes the annual true-up.

Q. Does the RSM remedy any over- or under-collections (including interest at the utility's short-term borrowing rate) through subsequent rate adjustments or refunds?

A. Yes.

Q. How?

A. Please refer to the testimony above and to the tariff page for RSM (or Schedule CBR-5), which describes the calculation for the RSM including interest at the Company's short-term interest rate.

d. Public Interest

Q. Does Missouri law allow the Commission to approve the Company's proposed RSM?

A. Yes. It is my understanding that Section 386.266.4, RSMo, provides as follows:

> Subject to the requirements of this section, a water corporation with more than eight thousand Missouri retail customers may make an application to the commission to approve rate schedules authorizing periodic rate adjustments outside of general rate proceedings to ensure revenues billed by such water corporation for regulated services equal the revenue requirement for regulated services as established in the water corporation's most recent general rate proceeding or complaint proceeding, excluding any

other commission-approved surcharges and gross receipts tax, sales tax, and other similar pass-through taxes not included in tariffed rates, due to any revenue variation resulting from increases or decreases in residential, commercial, public authority, and sale for resale usage.

(emphasis added).

Q. What did the General Assembly identify when authorizing the Commission to approve the adoption of alternative recovery mechanisms such as the RSM?

A. I believe that purpose is found within the statute itself. Section 386.266.4, RSMo states that ". . . to ensure revenues billed by such water corporation for regulated services equal the revenue requirement for regulated services as established in the water corporation's most recent general rate proceeding or complaint proceeding . . . **due to any revenue variation** resulting from increases or decreases in residential, commercial, public authority, and sale for resale usage." (emphasis added).

Q. Is the approach to water corporations different for the mechanism applicable to electric and gas corporations in Missouri?

A. Yes. Electric and gas corporations are limited to "variations in either weather, conservation, or both." Section 386.266.4. RSMo. The General Assembly appears to have recognized that there are issues that cause fluctuations in usage that are unique to water corporations.

Q. How does a properly structured RSM address this purpose and benefit MAWC's customers?

A. It is in the long-term best interests of customers for the Company to be able to reliably recover its revenue requirement on an ongoing basis. The authorized water revenue requirements approved by the Commission in this case represent the amount of revenue

the Commission determines that the Company needs to operate, maintain, and invest in its water system in a prudent and efficient manner. The ability to reliably recover the Company's approved revenue requirement improves the Company's ability to plan, manage, maintain, and invest in the facilities necessary to continue providing safe, reliable, and high-quality water service at a reasonable cost to customers, and a properly structured RSM does just that.

Q. Are there other benefits to customers from the approval of an RSM?

A. Yes. An RSM will provide better alignment with the Company's commitment to conservation and the Company's commitment to use resources efficiently. The Company is engaged in a broad array of efforts to become more efficient, and an RSM supports more consistent planning and deployment of the most efficient resources. Improving water efficiency also reduces withdrawals from limited freshwater supplies, leaving more water for future use and improving the ambient water quality and aquatic habitat. Improving water efficiency is a "win/win/win" providing a wide range of benefits for consumers, utilities, businesses, and for communities as a whole. Approving an RSM opens the path to achieving that winning combination.

Q. Are there other policy concerns among public utility regulators that an RSM addresses?

A. Yes. The National Association of Regulatory Utility Commissioners ("NARUC") has been at the forefront of this issue. At its November 2013 annual meeting, NARUC adopted a resolution that supports the consideration of alternative recovery mechanisms for water and wastewater utilities, attached hereto as Schedule CBR-6. The NARUC resolution recognizes declining use per customer, a shift to non-revenue producing infrastructure

replacement, and that the traditional cost of service model is not well adapted to this new environment. It states, in part:

> WHEREAS, Traditional cost of service ratemaking, which has worked reasonably well in the past for water and wastewater utilities, no longer adequately addresses the challenges of today and tomorrow. Revenue, driven by declining use per customer, is flat to decreasing, while the nature of investment (rate base) has shifted largely from plant needed for serving new customers to non-revenue producing infrastructure replacement and compliance with new drinking water standards; and
>
> WHEREAS, The traditional cost of service model is not well adapted to a no/low growth, high investment utility environment and is unlikely to encourage the necessary future investment in infrastructure replacement; and
>
> WHEREAS, Compared to the water and wastewater industry, the electric and natural gas delivery industries have in place a larger number and a greater variety of alternative regulation policies, such as multiyear rate plans and rate stabilization programs, and those set forth in the 2005 Resolution; and
>
> WHEREAS, The U.S. water industry is the most capital intensive sector of regulated utilities and faces critical investment needs that are expected to total $335 billion to $1 trillion over the next quarter century, as noted in the American Society of Civil Engineers 2013 Report Card for America's Infrastructure…

The NARUC resolution goes on to recommend the adoption of alternative recovery mechanisms such as the RSM. It states that:

> Alternative regulatory mechanisms can enhance the efficiency and effectiveness of water and wastewater utility regulation by reducing regulatory costs, increasing rates for customers, when necessary, on a more gradual basis; and providing the predictability and regulatory certainty that supports the attraction of debt and equity capital at reasonable costs and maintains that access at all times.

Q. Are alternative regulatory mechanisms such as the RSM recognized in the regulatory community as an effective means of addressing these policy concerns?

A. Yes. RSMs have been adopted in many states to eliminate the throughput incentive, support energy efficiency initiatives and investment, and align actual revenue collection

with authorized revenue. Clauses similar to the RSM proposed here have been successfully used for some time for water utilities in New York and California and have been more recently adopted for water utilities in Connecticut, Nevada, Maine, and Illinois. In addition, similar revenue stabilizing mechanisms have been approved for gas utilities in 23 states and an additional two states plus the District of Columbia have mechanisms pending, according to the December 2016 report from the American Gas Association entitled "Innovative Rates, Non-Volumetric Rates, and Tracking Mechanisms: Current List."[4] This report also states that Weather Normalization Adjustments are allowed in 22 states. A December 2017 report by the Institute for Electric Innovation lists 32 states and the District of Columbia that have an approved fixed cost recovery mechanism for electric utilities with an additional state pending approval.

Q. Please summarize why adoption of an RSM for the Company and its customers is appropriate in this proceeding.

A. Adoption of an RSM is in the long-term best interest of the Company and its customers. Rate designs that tie a utility's revenue recovery directly to sales volume have prompted two widespread concerns in modern utility regulation. First, rewarding a water utility for selling more water implicitly encourages water use and penalizes a water utility for encouraging end use water efficiency and conservation. This misalignment is unfortunate because utilities can play an important role in helping to improve water efficiency and promote conservation. Second, because of seasonal variability and declining use per customer, volumetric rates do not give water utilities a reasonable opportunity to recover

[4] An earlier 2013 study by the Brattle Group entitled "Alternative Regulation and Ratemaking Approaches for Water Companies: Supporting the Capital Investment Needs of the 21st Century," prepared for the National Association of Water Companies, (September 30, 2013) found that 27 states for electricity, 30 states for natural gas delivery, and 5 states for water have this kind of mechanism.

their authorized revenues. By allowing the Company to collect the revenues authorized by the Commission, the RSM: 1) promotes water efficiency and conservation; 2) reduces the adverse impact of weather variability for both the utility and its customers; and 3) reasonably provides that revenues for continued water efficiency investments are available. In addition, the revenue volatility that was caused by the COVID-19 pandemic provides another strong argument for adoption of the RSM. The result is a better alignment of all stakeholder interests, and the Company respectfully requests the Commission to authorize its proposed RSM.

Q. Does this conclude your Direct Testimony?

A. Yes.

Missouri-American Water Company
Docket No. XXXXXX
Water Affordability Summary - Bills for Basic Water Service
Customer Counts as of December 31, 2023

Affordability Target: 2.0%

Income Level	Size	Basic Water Service	Average Income	Customers	Proposed Base Bill	--- Customers by FPL --- 0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%	300%-350%	350%-400%	400%-450%	450%-500%	Over 500%
$0-$5k	1	1,500	$ 3,000	4,755	$ 36.72	4,755	-	-	-	-	-	-	-	-	-	-
$0-$5k	2	3,000	$ 3,000	2,740	$ 52.10	2,740	-	-	-	-	-	-	-	-	-	-
$0-$5k	3	4,500	$ 3,000	865	$ 67.48	865	-	-	-	-	-	-	-	-	-	-
$0-$5k	4	6,000	$ 3,000	575	$ 82.87	575	-	-	-	-	-	-	-	-	-	-
$0-$5k	5	7,500	$ 3,000	274	$ 98.25	274	-	-	-	-	-	-	-	-	-	-
$0-$5k	6	9,000	$ 3,000	99	$ 113.63	99	-	-	-	-	-	-	-	-	-	-
$0-$5k	7	10,500	$ 3,000	64	$ 129.01	64	-	-	-	-	-	-	-	-	-	-
$5-$10k	1	1,500	$ 7,500	3,313	$ 36.72	1,668	1,645	-	-	-	-	-	-	-	-	-
$5-$10k	2	3,000	$ 7,500	1,421	$ 52.10	1,421	-	-	-	-	-	-	-	-	-	-
$5-$10k	3	4,500	$ 7,500	457	$ 67.48	457	-	-	-	-	-	-	-	-	-	-
$5-$10k	4	6,000	$ 7,500	304	$ 82.87	304	-	-	-	-	-	-	-	-	-	-
$5-$10k	5	7,500	$ 7,500	123	$ 98.25	123	-	-	-	-	-	-	-	-	-	-
$5-$10k	6	9,000	$ 7,500	40	$ 113.63	40	-	-	-	-	-	-	-	-	-	-
$5-$10k	7	10,500	$ 7,500	24	$ 129.01	24	-	-	-	-	-	-	-	-	-	-
$10-$15k	1	1,500	$ 12,500	7,612	$ 36.72	-	7,612	-	-	-	-	-	-	-	-	-
$10-$15k	2	3,000	$ 12,500	2,257	$ 52.10	-	2,257	-	-	-	-	-	-	-	-	-
$10-$15k	3	4,500	$ 12,500	720	$ 67.48	432	288	-	-	-	-	-	-	-	-	-
$10-$15k	4	6,000	$ 12,500	462	$ 82.87	462	-	-	-	-	-	-	-	-	-	-
$10-$15k	5	7,500	$ 12,500	170	$ 98.25	170	-	-	-	-	-	-	-	-	-	-
$10-$15k	6	9,000	$ 12,500	73	$ 113.63	73	-	-	-	-	-	-	-	-	-	-
$10-$15k	7	10,500	$ 12,500	33	$ 129.01	33	-	-	-	-	-	-	-	-	-	-
$15-$20k	1	1,500	$ 17,500	7,456	$ 36.72	-	-	7,456	-	-	-	-	-	-	-	-
$15-$20k	2	3,000	$ 17,500	2,621	$ 52.10	-	2,621	-	-	-	-	-	-	-	-	-
$15-$20k	3	4,500	$ 17,500	828	$ 67.48	-	828	-	-	-	-	-	-	-	-	-
$15-$20k	4	6,000	$ 17,500	537	$ 82.87	51	486	-	-	-	-	-	-	-	-	-
$15-$20k	5	7,500	$ 17,500	218	$ 98.25	151	67	-	-	-	-	-	-	-	-	-
$15-$20k	6	9,000	$ 17,500	77	$ 113.63	77	-	-	-	-	-	-	-	-	-	-
$15-$20k	7	10,500	$ 17,500	47	$ 129.01	47	-	-	-	-	-	-	-	-	-	-
$20-$25k	1	1,500	$ 22,500	7,530	$ 36.72	-	-	3,775	3,755	-	-	-	-	-	-	-
$20-$25k	2	3,000	$ 22,500	3,432	$ 52.10	-	340	3,092	-	-	-	-	-	-	-	-
$20-$25k	3	4,500	$ 22,500	1,105	$ 67.48	-	1,105	-	-	-	-	-	-	-	-	-
$20-$25k	4	6,000	$ 22,500	727	$ 82.87	-	727	-	-	-	-	-	-	-	-	-
$20-$25k	5	7,500	$ 22,500	316	$ 98.25	-	316	-	-	-	-	-	-	-	-	-
$20-$25k	6	9,000	$ 22,500	109	$ 113.63	16	93	-	-	-	-	-	-	-	-	-
$20-$25k	7	10,500	$ 22,500	77	$ 129.01	55	22	-	-	-	-	-	-	-	-	-
$25-$35k	1	1,500	$ 22,500	13,537	$ 36.72	-	-	-	6,774	6,763	-	-	-	-	-	-
$25-$35k	2	3,000	$ 30,000	9,513	$ 52.10	-	-	5,708	3,805	-	-	-	-	-	-	-
$25-$35k	3	4,500	$ 30,000	3,086	$ 67.48	-	302	2,784	-	-	-	-	-	-	-	-
$25-$35k	4	6,000	$ 30,000	2,044	$ 82.87	-	1,229	815	-	-	-	-	-	-	-	-
$25-$35k	5	7,500	$ 30,000	986	$ 98.25	-	986	-	-	-	-	-	-	-	-	-
$25-$35k	6	9,000	$ 30,000	390	$ 113.63	-	390	-	-	-	-	-	-	-	-	-
$25-$35k	7	10,500	$ 30,000	247	$ 129.01	-	247	-	-	-	-	-	-	-	-	-
$35-$50k	1	1,500	$ 37,500	17,522	$ 36.72	-	-	-	-	3,502	8,760	5,260	-	-	-	-
$35-$50k	2	3,000	$ 37,500	16,470	$ 52.10	-	-	-	6,588	9,882	-	-	-	-	-	-
$35-$50k	3	4,500	$ 37,500	5,695	$ 67.48	-	-	1,138	4,557	-	-	-	-	-	-	-
$35-$50k	4	6,000	$ 37,500	3,789	$ 82.87	-	-	3,031	758	-	-	-	-	-	-	-
$35-$50k	5	7,500	$ 37,500	1,863	$ 98.25	-	183	1,681	-	-	-	-	-	-	-	-
$35-$50k	6	9,000	$ 37,500	722	$ 113.63	-	346	377	-	-	-	-	-	-	-	-
$35-$50k	7	10,500	$ 37,500	472	$ 129.01	-	388	84	-	-	-	-	-	-	-	-
$50-$75k	1	1,500	$ 62,500	21,683	$ 36.72	-	-	-	-	-	-	2,169	6,503	6,507	6,504	-
$50-$75k	2	3,000	$ 62,500	27,567	$ 52.10	-	-	-	-	-	13,779	11,030	2,758	-	-	-
$50-$75k	3	4,500	$ 62,500	10,635	$ 67.48	-	-	-	1,057	5,324	4,255	-	-	-	-	-
$50-$75k	4	6,000	$ 62,500	7,263	$ 82.87	-	-	-	3,625	3,638	-	-	-	-	-	-
$50-$75k	5	7,500	$ 62,500	3,610	$ 98.25	-	-	722	2,534	355	-	-	-	-	-	-
$50-$75k	6	9,000	$ 62,500	1,365	$ 113.63	-	-	695	670	-	-	-	-	-	-	-
$50-$75k	7	10,500	$ 62,500	868	$ 129.01	-	-	711	157	-	-	-	-	-	-	-
$75-$100k	1	1,500	$ 87,500	12,250	$ 36.72	-	-	-	-	-	-	-	-	-	-	12,250
$75-$100k	2	3,000	$ 87,500	22,729	$ 52.10	-	-	-	-	-	-	-	6,817	9,091	6,821	-
$75-$100k	3	4,500	$ 87,500	9,967	$ 67.48	-	-	-	-	-	993	4,989	3,985	-	-	-
$75-$100k	4	6,000	$ 87,500	7,551	$ 82.87	-	-	-	-	753	4,533	2,264	-	-	-	-
$75-$100k	5	7,500	$ 87,500	3,627	$ 98.25	-	-	-	-	2,536	1,091	-	-	-	-	-
$75-$100k	6	9,000	$ 87,500	1,387	$ 113.63	-	-	-	546	841	-	-	-	-	-	-
$75-$100k	7	10,500	$ 87,500	806	$ 129.01	-	-	-	647	159	-	-	-	-	-	-
$100-$150k	1	1,500	$ 125,000	11,349	$ 36.72	-	-	-	-	-	-	-	-	-	-	11,349
$100-$150k	2	3,000	$ 125,000	30,921	$ 52.10	-	-	-	-	-	-	-	-	-	-	30,921
$100-$150k	3	4,500	$ 125,000	15,356	$ 67.48	-	-	-	-	-	-	-	1,530	3,081	4,601	6,145
$100-$150k	4	6,000	$ 125,000	13,643	$ 82.87	-	-	-	-	-	-	2,727	4,088	4,100	2,728	-
$100-$150k	5	7,500	$ 125,000	6,041	$ 98.25	-	-	-	-	-	1,207	2,418	1,818	598	-	-
$100-$150k	6	9,000	$ 125,000	2,293	$ 113.63	-	-	-	-	225	933	913	222	-	-	-
$100-$150k	7	10,500	$ 125,000	1,323	$ 129.01	-	-	-	-	520	551	252	-	-	-	-
Over $150k	1	1,500	$ 200,000	10,609	$ 36.72	-	-	-	-	-	-	-	-	-	-	10,609
Over $150k	2	3,000	$ 200,000	37,485	$ 52.10	-	-	-	-	-	-	-	-	-	-	37,485
Over $150k	3	4,500	$ 200,000	20,583	$ 67.48	-	-	-	-	-	-	-	-	-	-	20,583
Over $150k	4	6,000	$ 200,000	20,691	$ 82.87	-	-	-	-	-	-	-	-	-	2,060	18,631
Over $150k	5	7,500	$ 200,000	8,786	$ 98.25	-	-	-	-	-	-	-	-	878	1,763	6,145
Over $150k	6	9,000	$ 200,000	3,178	$ 113.63	-	-	-	-	-	-	-	630	635	647	1,267
Over $150k	7	10,500	$ 200,000	1,832	$ 129.01	-	-	-	-	-	-	358	374	376	537	188
			Total:	443,195		14,975	22,478	32,068	35,472	34,499	36,102	32,380	28,725	25,266	25,660	155,572
			Avg. Proposed Base Bill	$ 59.49		$ 54.77	$ 58.54	$ 59.70	$ 60.92	$ 61.10	$ 60.17	$ 62.32	$ 61.70	$ 60.39	$ 63.03	$ 57.46
			Avg. Household Income	$ 98,531		$ 5,363	$ 17,657	$ 29,120	$ 39,592	$ 49,418	$ 65,674	$ 77,739	$ 93,368	$ 101,017	$ 113,821	$ 167,801
			Average BTI Raio:	0.72%		12.26%	3.98%	2.46%	1.85%	1.48%	1.10%	0.96%	0.79%	0.72%	0.66%	0.41%

--- Average Bills by FPL Multiple ---

Size	0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%
1	$ 36.72	$ 36.72	$ 36.72	$ 36.72	$ 36.72	$ 36.72
2	$ 52.10	$ 52.10	$ 52.10	$ 52.10	$ 52.10	$ 52.10
3	$ 67.48	$ 67.48	$ 67.48	$ 67.48	$ 67.48	$ 67.48
4	$ 82.87	$ 82.87	$ 82.87	$ 82.87	$ 82.87	$ 82.87
5	$ 98.25	$ 98.25	$ 98.25	$ 98.25	$ 98.25	$ 98.25
6	$ 113.63	$ 113.63	$ 113.63	$ 113.63	$ 113.63	$ 113.63
7	$ 129.01	$ 129.01	$ 129.01	$ 129.01	$ 129.01	$ 129.01

--- Household Income by FPL Multiple ---

Size	0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%
1	$ 7,530	$ 15,060	$ 22,590	$ 30,120	$ 37,650	$ 45,180
2	$ 10,220	$ 20,440	$ 30,660	$ 40,880	$ 51,100	$ 61,320
3	$ 12,910	$ 25,820	$ 38,730	$ 51,640	$ 64,550	$ 77,460
4	$ 15,600	$ 31,200	$ 46,800	$ 62,400	$ 78,000	$ 93,600
5	$ 18,290	$ 36,580	$ 54,870	$ 73,160	$ 91,450	$ 109,740
6	$ 20,980	$ 41,960	$ 62,940	$ 83,920	$ 104,900	$ 125,880
7	$ 23,670	$ 47,340	$ 71,010	$ 94,680	$ 118,350	$ 142,020

Size	0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%
1	5.85%	2.93%	1.95%	1.46%	1.17%	0.98%
2	6.12%	3.06%	2.04%	1.53%	1.22%	1.02%
3	6.27%	3.14%	2.09%	1.57%	1.25%	1.05%
4	6.37%	3.19%	2.12%	1.59%	1.27%	1.06%
5	6.45%	3.22%	2.15%	1.61%	1.29%	1.07%
6	6.50%	3.25%	2.17%	1.62%	1.30%	1.08%
7	6.54%	3.27%	2.18%	1.64%	1.31%	1.09%

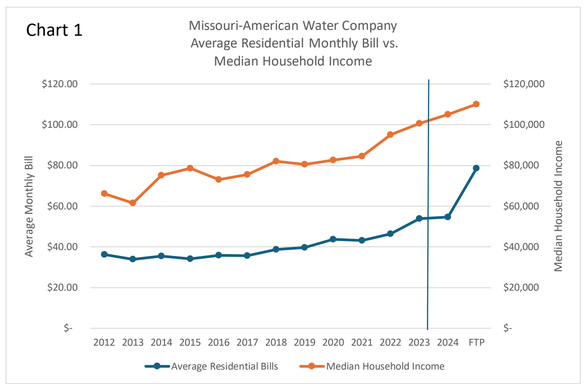
Income	Customers	Flagged	AI
Over $150k	103,164	#VALUE!	#VALUE!
$100-$150k	80,926	#VALUE!	#VALUE!
$75-$100k	58,317	#VALUE!	#VALUE!
$50-$75k	72,991	#VALUE!	#VALUE!
$35-$50k	46,533	#VALUE!	#VALUE!
$25-$35k	29,803	#VALUE!	#VALUE!
$20-$25k	13,296	#VALUE!	#VALUE!
$15-$20k	11,784	#VALUE!	#VALUE!
$10-$15k	11,327	#VALUE!	#VALUE!
$5-$10k	5,682	#VALUE!	#VALUE!
$0-$5k	9,372	#VALUE!	#VALUE!

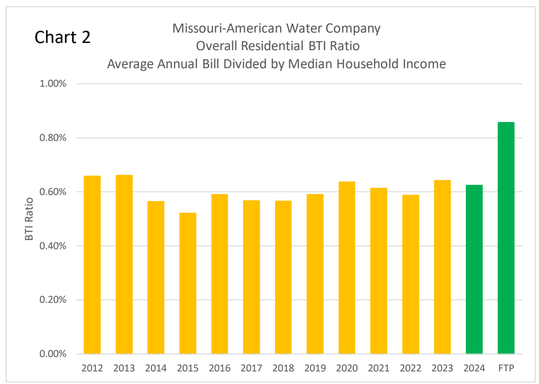
Household Size	0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%	300%-350%	350%-400%	400%-450%	450%-500%	Over 500%
1	6,423	9,257	11,231	10,529	10,265	8,760	7,429	6,503	6,507	6,504	34,208
2	4,161	5,218	8,800	10,393	9,882	13,779	11,030	9,575	9,091	6,821	68,406
3	1,754	2,523	3,922	5,614	5,324	5,248	4,989	5,515	3,081	4,601	26,728
4	1,392	2,442	3,846	4,383	4,391	4,533	4,991	4,088	4,100	4,788	18,631
5	718	1,552	2,403	2,534	2,891	2,297	2,418	1,818	1,476	1,763	6,145
6	305	829	1,072	1,216	1,066	933	913	852	635	647	1,267
7	223	657	794	804	679	551	610	374	376	537	188

	BTI 0%-1%	BTI 1%-2%	BTI 2%-3%	BTI 3%-4%	BTI 4%-5%	BTI 5%-6%	BTI 6%-7%	BTI 7%-8%	BTI 8%-9%	BTI 9%-10%	BTI Over 10%
	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

Missouri-American Water Company
Water Affordability Analysis

Residential Statistics	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	FTP	
MO Revenue	$ 141,267,228	$ 154,084,017	$ 182,439,094	$ 172,053,851	$ 179,670,809	$ 174,130,824	$ 183,937,731	$ 183,626,565	$ 199,951,336	$ 205,328,788	$ 227,963,883	$ 225,283,889	$ 244,102,076	$ 285,481,842	$ 291,663,670	$ 419,813,673	
MO Sales	34,368,161	35,143,027	38,072,177	33,391,295	32,445,029	31,360,336	30,933,541	32,947,131	33,195,818	29,143,580	31,073,628	29,934,923	30,763,288	31,121,838	29,721,028	29,233,830	
MO Customers	417,693	417,705	419,449	423,430	423,208	424,515	426,650	428,788	431,003	431,738	433,979	434,592	437,777	441,951	445,057	445,057	
MO Statewide Median Income	$ 45,820	$ 45,770	$ 49,760	$ 46,300	$ 56,630	$ 59,200	$ 55,020	$ 56,890	$ 61,730	$ 60,600	$ 62,180	$ 63,590	$ 71,520	$ 75,754	$ 79,019	$ 82,881	
MO Customer Median Income	$ 60,883	$ 60,817	$ 66,119	$ 61,521	$ 75,247	$ 78,662	$ 73,108	$ 75,593	$ 82,024	$ 80,522	$ 82,622	$ 84,495	$ 95,032	$ 100,658	$ 104,997	$ 110,129	1.3288
MO Average Price	$ 4.11	$ 4.38	$ 4.79	$ 5.15	$ 5.54	$ 5.55	$ 5.95	$ 5.57	$ 6.02	$ 7.05	$ 7.34	$ 7.53	$ 7.93	$ 9.17	$ 9.81	$ 14.36	State adjustment factor to reflect
MO Average Monthly Bill	$ 28.18	$ 30.74	$ 36.25	$ 33.86	$ 35.38	$ 34.18	$ 35.93	$ 35.69	$ 38.66	$ 39.63	$ 43.77	$ 43.20	$ 46.47	$ 53.83	$ 54.61	$ 78.61	the difference between statewide MHI and
MO Average Monthly Use	6.86	7.01	7.56	6.57	6.39	6.16	6.04	6.40	6.42	5.63	5.97	5.74	5.86	5.87	5.57	5.47	MHI for AW customers in the state
MO BTI Ratio	0.56%	0.61%	0.66%	0.66%	0.56%	0.52%	0.59%	0.57%	0.57%	0.59%	0.64%	0.61%	0.59%	0.64%	0.62%	0.86%	





	Date Ending	MHI Esc.	Revenue	Customers	Usage
Period 1	Dec-24	4.31%	$ 291,663,670	445,057	29,721,028
Period 2	May-26	9.41%	$ 419,813,673	445,057	29,233,830

Missouri-American Water Company
Docket No. XXXXXX
Water Affordability Summary - Bills for Basic Water Service
Customer Counts as of December 31, 2023

Affordability Target: 2.0%

Income Level	Size	Basic Water Service	Average Income	Customers	Proposed Base Bill	--- Customers by FPL --- 0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%	300%-350%	350%-400%	400%-450%	450%-500%	Over 500%
$0-$5k	1	$ 1,500	$ 3,000	154	$ 59.78	154	-	-	-	-	-	-	-	-	-	-
$0-$5k	2	$ 3,000	$ 3,000	97	$ 72.37	97	-	-	-	-	-	-	-	-	-	-
$0-$5k	3	$ 4,500	$ 3,000	27	$ 71.88	27	-	-	-	-	-	-	-	-	-	-
$0-$5k	4	$ 6,000	$ 3,000	18	$ 71.11	18	-	-	-	-	-	-	-	-	-	-
$0-$5k	5	$ 7,500	$ 3,000	5	$ 66.03	5	-	-	-	-	-	-	-	-	-	-
$0-$5k	6	$ 9,000	$ 3,000	2	$ 61.87	2	-	-	-	-	-	-	-	-	-	-
$0-$5k	7	$ 10,500	$ 3,000	-	$ -	-	-	-	-	-	-	-	-	-	-	-
$5-$10k	1	$ 1,500	$ 7,500	138	$ 61.77	76	62	-	-	-	-	-	-	-	-	-
$5-$10k	2	$ 3,000	$ 7,500	67	$ 75.83	67	-	-	-	-	-	-	-	-	-	-
$5-$10k	3	$ 4,500	$ 7,500	19	$ 73.90	19	-	-	-	-	-	-	-	-	-	-
$5-$10k	4	$ 6,000	$ 7,500	12	$ 75.72	12	-	-	-	-	-	-	-	-	-	-
$5-$10k	5	$ 7,500	$ 7,500	4	$ 72.26	4	-	-	-	-	-	-	-	-	-	-
$5-$10k	6	$ 9,000	$ 7,500	-	$ -	-	-	-	-	-	-	-	-	-	-	-
$5-$10k	7	$ 10,500	$ 7,500	-	$ -	-	-	-	-	-	-	-	-	-	-	-
$10-$15k	1	$ 1,500	$ 12,500	291	$ 58.12	-	291	-	-	-	-	-	-	-	-	-
$10-$15k	2	$ 3,000	$ 12,500	92	$ 70.00	-	92	-	-	-	-	-	-	-	-	-
$10-$15k	3	$ 4,500	$ 12,500	25	$ 69.35	18	7	-	-	-	-	-	-	-	-	-
$10-$15k	4	$ 6,000	$ 12,500	19	$ 69.53	19	-	-	-	-	-	-	-	-	-	-
$10-$15k	5	$ 7,500	$ 12,500	5	$ 66.03	5	-	-	-	-	-	-	-	-	-	-
$10-$15k	6	$ 9,000	$ 12,500	1	$ 41.09	1	-	-	-	-	-	-	-	-	-	-
$10-$15k	7	$ 10,500	$ 12,500	-	$ -	-	-	-	-	-	-	-	-	-	-	-
$15-$20k	1	$ 1,500	$ 17,500	322	$ 58.42	-	-	322	-	-	-	-	-	-	-	-
$15-$20k	2	$ 3,000	$ 17,500	123	$ 71.16	-	123	-	-	-	-	-	-	-	-	-
$15-$20k	3	$ 4,500	$ 17,500	41	$ 71.50	-	41	-	-	-	-	-	-	-	-	-
$15-$20k	4	$ 6,000	$ 17,500	27	$ 68.80	1	26	-	-	-	-	-	-	-	-	-
$15-$20k	5	$ 7,500	$ 17,500	6	$ 68.80	5	1	-	-	-	-	-	-	-	-	-
$15-$20k	6	$ 9,000	$ 17,500	1	$ 41.09	1	-	-	-	-	-	-	-	-	-	-
$15-$20k	7	$ 10,500	$ 17,500	1	$ 41.09	1	-	-	-	-	-	-	-	-	-	-
$20-$25k	1	$ 1,500	$ 22,500	399	$ 55.96	-	-	206	193	-	-	-	-	-	-	-
$20-$25k	2	$ 3,000	$ 22,500	204	$ 66.76	-	17	187	-	-	-	-	-	-	-	-
$20-$25k	3	$ 4,500	$ 22,500	63	$ 66.16	-	63	-	-	-	-	-	-	-	-	-
$20-$25k	4	$ 6,000	$ 22,500	43	$ 67.19	-	43	-	-	-	-	-	-	-	-	-
$20-$25k	5	$ 7,500	$ 22,500	19	$ 65.15	-	19	-	-	-	-	-	-	-	-	-
$20-$25k	6	$ 9,000	$ 22,500	4	$ 61.87	-	4	-	-	-	-	-	-	-	-	-
$20-$25k	7	$ 10,500	$ 22,500	2	$ 41.09	1	1	-	-	-	-	-	-	-	-	-
$25-$35k	1	$ 1,500	$ 22,500	585	$ 56.88	-	-	-	296	289	-	-	-	-	-	-
$25-$35k	2	$ 3,000	$ 30,000	475	$ 68.13	-	-	283	192	-	-	-	-	-	-	-
$25-$35k	3	$ 4,500	$ 30,000	152	$ 68.43	-	10	142	-	-	-	-	-	-	-	-
$25-$35k	4	$ 6,000	$ 30,000	100	$ 68.10	-	61	39	-	-	-	-	-	-	-	-
$25-$35k	5	$ 7,500	$ 30,000	50	$ 68.52	-	50	-	-	-	-	-	-	-	-	-
$25-$35k	6	$ 9,000	$ 30,000	17	$ 65.54	-	17	-	-	-	-	-	-	-	-	-
$25-$35k	7	$ 10,500	$ 30,000	9	$ 64.18	-	9	-	-	-	-	-	-	-	-	-
$35-$50k	1	$ 1,500	$ 37,500	772	$ 58.14	-	-	-	-	153	386	234	-	-	-	-
$35-$50k	2	$ 3,000	$ 37,500	830	$ 69.73	-	-	-	331	499	-	-	-	-	-	-
$35-$50k	3	$ 4,500	$ 37,500	293	$ 69.88	-	-	60	233	-	-	-	-	-	-	-
$35-$50k	4	$ 6,000	$ 37,500	194	$ 70.01	-	-	155	39	-	-	-	-	-	-	-
$35-$50k	5	$ 7,500	$ 37,500	97	$ 70.22	-	7	90	-	-	-	-	-	-	-	-
$35-$50k	6	$ 9,000	$ 37,500	36	$ 69.95	-	10	27	-	-	-	-	-	-	-	-
$35-$50k	7	$ 10,500	$ 37,500	25	$ 69.35	-	24	1	-	-	-	-	-	-	-	-
$50-$75k	1	$ 1,500	$ 62,500	954	$ 57.65	-	-	-	-	-	96	285	286	286	-	
$50-$75k	2	$ 3,000	$ 62,500	1,451	$ 69.22	-	-	-	-	-	721	583	147	-	-	
$50-$75k	3	$ 4,500	$ 62,500	590	$ 69.41	-	-	-	57	296	237	-	-	-	-	
$50-$75k	4	$ 6,000	$ 62,500	412	$ 69.84	-	-	-	201	211	-	-	-	-	-	
$50-$75k	5	$ 7,500	$ 62,500	205	$ 69.68	-	-	40	149	16	-	-	-	-	-	
$50-$75k	6	$ 9,000	$ 62,500	76	$ 69.53	-	-	45	31	-	-	-	-	-	-	
$50-$75k	7	$ 10,500	$ 62,500	45	$ 68.80	-	-	41	4	-	-	-	-	-	-	
$75-$100k	1	$ 1,500	$ 87,500	563	$ 57.85	-	-	-	-	-	-	-	-	-	-	563
$75-$100k	2	$ 3,000	$ 87,500	1,317	$ 69.71	-	-	-	-	-	-	-	394	528	396	-
$75-$100k	3	$ 4,500	$ 87,500	616	$ 70.10	-	-	-	-	-	61	311	245	-	-	-
$75-$100k	4	$ 6,000	$ 87,500	495	$ 70.64	-	-	-	-	52	297	147	-	-	-	-
$75-$100k	5	$ 7,500	$ 87,500	231	$ 70.24	-	-	-	-	160	71	-	-	-	-	-
$75-$100k	6	$ 9,000	$ 87,500	90	$ 70.18	-	-	-	31	59	-	-	-	-	-	-
$75-$100k	7	$ 10,500	$ 87,500	48	$ 69.66	-	-	-	42	6	-	-	-	-	-	-
$100-$150k	1	$ 1,500	$ 125,000	539	$ 58.09	-	-	-	-	-	-	-	-	-	-	539
$100-$150k	2	$ 3,000	$ 125,000	1,997	$ 69.56	-	-	-	-	-	-	-	-	-	-	1,997
$100-$150k	3	$ 4,500	$ 125,000	1,084	$ 69.92	-	-	-	-	-	-	-	106	221	323	434
$100-$150k	4	$ 6,000	$ 125,000	1,060	$ 70.34	-	-	-	-	-	-	210	314	324	211	-
$100-$150k	5	$ 7,500	$ 125,000	444	$ 70.29	-	-	-	-	-	90	175	138	42	-	-
$100-$150k	6	$ 9,000	$ 125,000	161	$ 69.74	-	-	-	-	12	75	64	10	-	-	-
$100-$150k	7	$ 10,500	$ 125,000	99	$ 70.06	-	-	-	-	36	51	13	-	-	-	-
Over $150k	1	$ 1,500	$ 200,000	242	$ 60.53	-	-	-	-	-	-	-	-	-	-	242
Over $150k	2	$ 3,000	$ 200,000	1,288	$ 73.20	-	-	-	-	-	-	-	-	-	-	1,288
Over $150k	3	$ 4,500	$ 200,000	856	$ 73.57	-	-	-	-	-	-	-	-	-	-	856
Over $150k	4	$ 6,000	$ 200,000	1,045	$ 73.90	-	-	-	-	-	-	-	-	-	97	948
Over $150k	5	$ 7,500	$ 200,000	429	$ 73.93	-	-	-	-	-	-	-	-	42	89	298
Over $150k	6	$ 9,000	$ 200,000	141	$ 74.10	-	-	-	-	-	-	-	24	29	36	53
Over $150k	7	$ 10,500	$ 200,000	80	$ 73.82	-	-	-	-	-	-	12	17	24	20	8
			Total:	22,424		533	977	1,638	1,799	1,787	1,988	1,844	1,679	1,497	1,457	7,225
		Avg. Proposed Base Bill	$ 67.76			$ 67.08	$ 65.17	$ 65.04	$ 65.99	$ 66.71	$ 67.46	$ 67.76	$ 67.96	$ 67.86	$ 68.18	$ 69.42
		Avg. Household Income	$ 96,851			$ 5,523	$ 18,325	$ 29,771	$ 40,794	$ 52,448	$ 69,816	$ 82,073	$ 96,486	$ 104,586	$ 114,934	$ 160,405
		Average BTI Raio:	0.84%			14.57%	4.27%	2.62%	1.94%	1.53%	1.16%	0.99%	0.85%	0.78%	0.71%	0.52%

--- Average Bills by FPL Multiple ---

Size	0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%
1	$ 60.57	$ 58.67	$ 57.59	$ 56.45	$ 57.21	$ 58.13
2	$ 73.78	$ 70.15	$ 67.64	$ 69.17	$ 69.75	$ 69.13
3	$ 72.26	$ 67.42	$ 69.34	$ 69.63	$ 69.45	$ 69.56
4	$ 71.01	$ 68.26	$ 69.54	$ 69.61	$ 70.33	$ 70.64
5	$ 69.53	$ 67.03	$ 70.24	$ 70.17	$ 69.69	$ 70.49
6	$ 51.48	$ 62.89	$ 72.48	$ 67.37	$ 70.24	$ 71.57
7	$ 41.09	$ 67.98	$ 69.79	$ 69.10	$ 67.66	$ 72.79

--- Household Income by FPL Multiple ---

Size	0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%
1	$ 7,530	$ 15,060	$ 22,590	$ 30,120	$ 37,650	$ 45,180
2	$ 10,220	$ 20,440	$ 30,660	$ 40,880	$ 51,100	$ 61,320
3	$ 12,910	$ 25,820	$ 38,730	$ 51,640	$ 64,550	$ 77,460
4	$ 15,600	$ 31,200	$ 46,800	$ 62,400	$ 78,000	$ 93,600
5	$ 18,290	$ 36,580	$ 54,870	$ 73,160	$ 91,450	$ 109,740
6	$ 20,980	$ 41,960	$ 62,940	$ 83,920	$ 104,900	$ 125,880
7	$ 23,670	$ 47,340	$ 71,010	$ 94,680	$ 118,350	$ 142,020

Size	0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%
1	9.65%	4.68%	3.06%	2.25%	1.82%	1.54%
2	8.66%	4.12%	2.65%	2.03%	1.64%	1.35%
3	6.72%	3.13%	2.15%	1.62%	1.29%	1.08%
4	5.46%	2.63%	1.78%	1.34%	1.08%	0.91%
5	4.56%	2.20%	1.54%	1.15%	0.91%	0.77%
6	2.94%	1.80%	1.38%	0.96%	0.80%	0.68%
7	2.08%	1.72%	1.18%	0.88%	0.69%	0.62%

Income	Customers	Flagged	AI
Over $150k	4,081	-	100%
$100-$150k	5,384	-	100%
$75-$100k	3,360	-	100%
$50-$75k	3,733	-	100%
$35-$50k	2,247	1,179	48%
$25-$35k	1,388	891	36%
$20-$25k	734	705	4%
$15-$20k	521	521	0%
$10-$15k	433	433	0%
$5-$10k	240	240	0%
$0-$5k	303	303	0%

Weighted Average Basic Water Service Bill:	$ 67.76
Median Household Income	$ 88,415
BTI Ratio:	0.92%
Average Use for Basic Service:	3,923

Household Size	0-50%	50%-100%	100%-150%	150%-200%	200%-250%	250%-300%	300%-350%	350%-400%	400%-450%	450%-500%	Over 500%
1	230	353	528	489	442	386	330	285	286	286	1,344
2	164	232	470	523	499	721	583	540	528	396	3,285
3	64	121	202	290	296	298	311	351	221	323	1,290
4	50	130	194	240	263	297	357	314	324	308	948
5	19	77	130	149	175	161	175	138	84	89	298
6	4	31	72	62	71	75	64	34	29	36	53
7	2	34	42	46	42	51	25	17	24	20	8

BTI 0%-1%	BTI 1%-2%	BTI 2%-3%	BTI 3%-4%	BTI 4%-5%	BTI 5%-6%	BTI 6%-7%	BTI 7%-8%	BTI 8%-9%	BTI 9%-10%	BTI Over 10%
12,018	6,134	1,982	816	454	235	119	127	44	38	459

Missouri-American Water Company
Wastewater Affordability Analysis

Residential Statistics	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	FTP	
MO Revenue	$ 2,449,777	$ 3,019,320	$ 3,229,619	$ 4,696,815	$ 6,298,703	$ 7,104,616	$ 7,954,733	$ 8,252,509	$ 8,437,964	$ 9,460,440	$ 12,250,506	$ 14,655,186	$ 15,884,008	$ 20,006,304	
MO Customers	3,081	3,865	4,458	7,917	11,650	12,092	13,095	13,960	14,217	14,912	18,456	21,739	24,853	25,115	
MO Statewide Median Income	$ 49,760	$ 46,300	$ 56,630	$ 59,200	$ 55,020	$ 56,890	$ 61,730	$ 60,600	$ 62,180	$ 63,590	$ 71,520	$ 75,754	$ 79,019	$ 82,881	
MO Customer Median Income	$ 62,868	$ 58,496	$ 71,548	$ 74,795	$ 69,513	$ 71,876	$ 77,991	$ 76,563	$ 78,560	$ 80,341	$ 90,360	$ 95,709	$ 99,834	$ 104,714	1.2634
MO Average Monthly Bill	$ 66.27	$ 65.11	$ 60.37	$ 49.44	$ 45.05	$ 48.96	$ 50.62	$ 49.26	$ 49.46	$ 52.87	$ 55.31	$ 56.18	$ 53.26	$ 66.38	State adjustment factor to reflect
MO BTI Ratio	1.26%	1.34%	1.01%	0.79%	0.78%	0.82%	0.78%	0.77%	0.76%	0.79%	0.73%	0.70%	0.64%	0.76%	the difference between statewide MHI and MHI for AW customers in the state

Chart 3

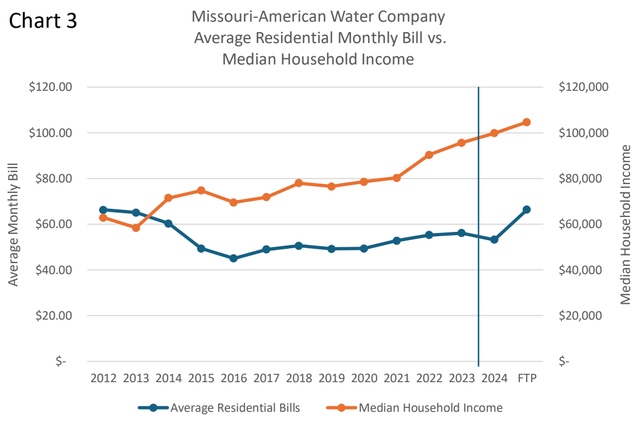
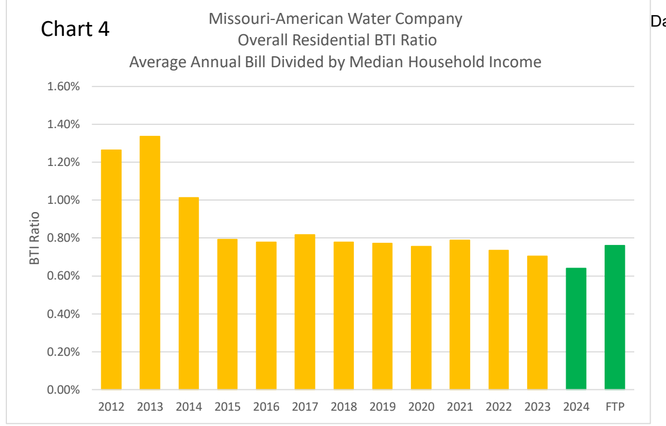


Chart 4



Date Ending	MHI Esc.	Revenue	Customers	Usage
Dec-24	4.31%	$ 15,884,008	24,853	
May-26	9.41%	$ 20,006,304	25,115	

Low-Income Tariff

AVAILABILITY - This rate is available to all residential ("domestic") metered customers that meet the low-income criteria of 150% based on the Federal Poverty Level. *

RATE – The discount off the service charge or minimum bill under this tariff will be as follows: *

Tier 1 (0%-50% of FPL):	75%	*
Tier 2 (51%-100% of FPL):	55%	*
Tier 3 (101%-150% of FPL):	25%	*

The discount off the water usage rate shall be billed as follows: *

Tier 1 (0%-50% of FPL):	75%	*
Tier 2 (51%-100% of FPL):	55%	*
Tier 3 (101%-150% of FPL):	25%	*

* *Indicates new rate or text*
\+ *Indicates change*

Date of Issue: July 1, 2024 Effective Date: July 31, 2024

Issued By: Rich C. Svindland, President
727 Craig Road, St. Louis, MO 63141

Missouri-American Water Company For
Name of Issuing Corporation Community, Town or City

Low-Income Tariff

AVAILABILITY - This rate is available to all residential ("domestic") metered customers that meet the low-income criteria of 150% based on the Federal Poverty Level. *

RATE – The discount off the customer charge or minimum bill under this tariff will be as follows: *

Tier 1 (0%-50% of FPL):	75%	*
Tier 2 (51%-100% of FPL):	55%	*
Tier 3 (101%-150% of FPL):	25%	*

* *Indicates new rate or text*
\+ *Indicates change*

Date of Issue: July 1, 2024 Effective Date: July 31, 2024

Issued By: Rich C. Svindland, President
727 Craig Road, St. Louis, MO 63141

Missouri-American Water Company
Residential partial Cost of Service Analysis

Cost Category	Residential Allocation	Seasonal Allocation	Basic Service Allocation	Seasonal Allocator	Basic Service Allocator	High Income Allocation	Mid Income Allocation	Low Income Allocation	High Income Allocator	Mid Income Allocator	Low Income Allocator
Source of Supply Expense											
Fixed	$ 918,010	$ 465,394	$ 452,616	0.50696	0.49304	$ 363,427	$ 416,792	$ 137,791	0.39589	0.45402	0.15010
Variable	$ 104,970	$ 36,657	$ 68,313	0.34921	0.65079	$ 35,265	$ 51,133	$ 18,572	0.33595	0.48712	0.17693
Power and Pumping Expenses											
Fixed	$ 4,037,683	$ 2,046,943	$ 1,990,740	0.50696	0.49304	$ 1,598,462	$ 1,833,174	$ 606,047	0.39589	0.45402	0.15010
Variable	$ 754,406	$ 263,449	$ 490,957	0.34921	0.65079	$ 253,443	$ 367,488	$ 133,474	0.33595	0.48712	0.17693
Water Treatment											
Fixed	$ 5,157,727	$ 2,614,761	$ 2,542,966	0.50696	0.49304	$ 2,041,871	$ 2,341,693	$ 774,163	0.39589	0.45402	0.15010
Variable	$ 1,385,077	$ 483,689	$ 901,388	0.34921	0.65079	$ 465,318	$ 674,703	$ 245,056	0.33595	0.48712	0.17693
Transmission	$ 2,799,873	$ 1,419,423	$ 1,380,450	0.50696	0.49304	$ 1,108,430	$ 1,271,188	$ 420,255	0.39589	0.45402	0.15010
Distribution	$ 7,596,692	$ 4,692,502	$ 2,904,190	0.61770	0.38230	$ 3,676,145	$ 2,967,096	$ 953,451	0.48391	0.39058	0.12551
Storage	$ 274,597	$ 169,619	$ 104,978	0.61770	0.38230	$ 132,881	$ 107,251	$ 34,464	0.48391	0.39058	0.12551
Total Rev. Rqmt.	$ 23,029,035	$ 12,192,439	$ 10,836,596			$ 9,675,242	$ 10,030,519	$ 3,323,274			
Usage	2,699,580	1,016,658	1,894,613			978,044	1,418,147	515,080			
Unit Cost	$ 8.53	$ 11.99	$ 5.72			$ 9.89	$ 7.07	$ 6.45			

Residential Revenue Allocations are from the Company's cost of service study

Revenue Stabilization Mechanism (RSM)

AVAILABILITY – All residential ("domestic"), commercial, other public authority and sale for resale metered water customers.

SECTION A - DEFINITIONS

Actual Revenue (AR) shall mean the actual dollar amount of revenues billed to customers for the identified Service Classifications, excluding revenues arising from adjustments under this tariff and any other tariff, which were billed for the applicable Fiscal Year, excluding revenues from acquisitions approved by the Commission that have not yet been approved in a general rate case and any revenues collected under Rate I (Sheet RT 10) or Rate W (Sheets RT 11.1 and RT 11.2).

Actual Production Costs (APC) shall mean the actual dollar amount of power, chemicals, purchased water and waste disposal incurred by the Company in the Fiscal Year, excluding production costs from acquisitions approved by the Commission that have not yet been approved in a general rate case.

Effective Period shall mean the period for which the adjustments in Section B are to be billed to customers, and shall be the nine-month period April through December after the Filing Month.

Effective Period Usage (G) shall mean the number of 100 gallon units delivered to customers by the Company, including the number of 100 gallon units for the applicable Effective Period.

Filing Month shall mean the month in which an adjustment is determined by the Company and submitted to the Commission, on or before January 31.

Fiscal Year shall mean the Fiscal Year of the Company that ended as of the most recent December 31.

Interest (i) shall mean the Company short-term interest borrowing rate.

Previous Amortization Period shall mean the nine-month reconciliation amortization period that ended as of the most recent Fiscal Year.

Rate Case Revenue (RCR) shall mean the dollar amount of revenues reflected in the revenue requirements approved by the Commission for the applicable Service Classifications in the Company's most recent general rate case. In a month or year in which new rates come into effect, the RCR shall be prorated based upon the number of days in the month or year under the old rates and the number of days in the month or year under the new rates.

Revenue Stabilization Mechanism (RSM)

Rate Case Production Costs (RPC) shall mean the dollar amount of power, chemicals, purchased water and waste disposal expenses reflected in revenue requirements approved by the Commission in the Company's most recent general rate case. In a month or year in which new rates come into effect, the RPC shall be prorated based upon the number of days in the month or year under the old rates and the number of days in the month or year under the new rates.

Upcoming Amortization Period shall mean the nine-month reconciliation amortization period commencing on April 1 following the Fiscal Year.

SECTION B – DETERMINATION OF ADJUSTMENT

$$\frac{\big((\mathbf{RCR}-\mathbf{RPC})-(\mathbf{AR}-\mathbf{APC})\big)(\mathbf{1}+\mathbf{i})+\mathbf{RA}}{\mathbf{G}}$$

Where:
RCR represents the Rate Case Revenue for the Fiscal Year.
RPC represents the Rate Case Production Costs for the Fiscal Year.
AR represents the Actual Revenue for the Fiscal Year.
APC represents the Actual Production Costs for the Fiscal Year.
i represents the interest rate
G represents the Factor G for the Effective Period.
RA represents the dollar amount due the Company (+RA) or the customers (-RA) arising from adjustments under this tariff that were under-billed or over-billed in the prior Fiscal Year.

The adjustment components above shall be summed together for billing purposes. If either component of the adjustments computes to $0.0001 per 100 gallons or more, any fraction of $0.0001 in the computed per 100 Gallons adjustment amount shall be dropped if less than $0.00005 or, if $0.00005 or more, shall be rounded up to the next full $0.0001.

SECTION C – REPORTS AND RECONCILIATIONS

The Company shall file with the Commission on or before January 30 of each year, the RSM calculation and support for any annual adjustments to be effective under this tariff. The Commission Staff will have 60 days to review. The reconciliation amount will be surcharged from April1 through December 31 of each calendar year. Any credit will be issued as soon as administratively possible.

Resolution Endorsing Consideration of Alternative Regulation that Supports Capital Investment in the 21st Century for Water and Wastewater Utilities

WHEREAS, Through the *Resolution Supporting Consideration of Regulatory Policies Deemed as "Best Practices"* (2005), the National Association of Regulatory Utility Commissioners (NARUC) has previously recognized the important role of innovative regulatory policies and mechanisms in facilitating the efforts of water and wastewater utilities to address their significant infrastructure investment challenges; *and*

WHEREAS, Traditional cost of service ratemaking, which has worked reasonably well in the past for water and wastewater utilities, no longer adequately addresses the challenges of today and tomorrow. Revenue, driven by declining use per customer, is flat to decreasing, while the nature of investment (rate base) has shifted largely from plant needed for serving new customers to non-revenue producing infrastructure replacement and compliance with new drinking water standards; *and*

WHEREAS, The traditional cost of service model is not well adapted to a no/low growth, high investment utility environment and is unlikely to encourage the necessary future investment in infrastructure replacement; *and*

WHEREAS, Compared to the water and wastewater industry, the electric and natural gas delivery industries have in place a larger number and a greater variety of alternative regulation policies, such as multiyear rate plans and rate stabilization programs, and those set forth in the 2005 Resolution; *and*

WHEREAS, The U.S. water industry is the most capital intensive sector of regulated utilities and faces critical investment needs that are expected to total $335 billion to $1 trillion over the next quarter century, as noted in the *American Society of Civil Engineers 2013 Report Card for America's Infrastructure*; *and*

WHEREAS, Tap water is physically ingested and the quality of the service must be maintained to protect the health and economic well-being of communities across our Nation and comply with current and future regulations covering the control of a number of contaminants from nitrosamines to chromium, at a cost estimated at $42 billion by the EPA as part of their April 2013 Report to Congress; *and*

WHEREAS, Alternative regulatory mechanisms can enhance the efficiency and effectiveness of water and wastewater utility regulation by reducing regulatory costs, increasing rates for customers, when necessary, on a more gradual basis; and providing the predictability and regulatory certainty that supports the attraction of debt and equity capital at reasonable costs and maintains that access at all times; *now, therefore be it*

RESOLVED, That the National Association of Regulatory Utility Commissioners, convened at its 125th Annual Meeting in Orlando, Florida, supports consideration of alternative regulation plans and mechanisms along with and in addition to the policies and mechanisms outlined in the

Resolution Supporting Consideration of Regulatory Policies Deemed as "Best Practices" adopted by the NARUC Board of Directors on July 27, 2005; *and be it further*

RESOLVED, That the Committee on Water stands ready to assist economic regulators with implementation of alternative regulatory approaches that support water companies' capital investment needs of the 21st century.

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Sponsored by the Committee on Water
Recommended by the NARUC Board of Directors November 19, 2013
Adopted by the NARUC Committee of the Whole November 20, 2013.