Exhibit No.:	
Issues:	Declining Usage, Revenue Stabilization Mechanism
Witness:	Charles B. Rea
Exhibit Type:	Surrebuttal
Sponsoring Party:	Missouri-American Water Company
Case No.:	WR-2022-0303 SR-2022-0304
Date:	February 8, 2023

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2022-0303
CASE NO. SR-2022-0304

SURREBUTTAL 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 for American Water Works Service Company, 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
[Witness Name]

February 8, 2023
Dated

SURREBUTTAL TESTIMONY
CHARLES B. REA
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2022-0303
CASE NO. SR-2022-0304

TABLE OF CONTENTS

SURREBUTTAL 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 5201 Grand Avenue, Davenport, IA 52801.

Q. Are you the same Charles B. Rea who previously submitted Direct Testimony and Rebuttal Testimony in this proceeding?

A. Yes.

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

A. The purpose of my Surrebuttal Testimony is to respond to certain Public Service Commission Staff (MoPSC or Staff) and Office of Public Counsel ("OPC") witnesses regarding the following issues:

- Revenue Stabilization Mechanism
- Residential Usage Normalization

Specifically, I will be addressing the Rebuttal Testimony filings of MoPSC witness Jarrod Robertson and James Busch, and OPC witness Lena Mantle.

Q. Are you sponsoring any schedules with your Surrebuttal Testimony?

A. I am sponsoring one schedule with my surrebuttal testimony:

- Schedule CBR-1 ST: Analysis of RSM Revenue Volatility

II. REVENUE STABILIZATION MECHANISM

Q. Have you reviewed the Rebuttal Testimony of OPC witness Mantle regarding the Company's proposal for a Revenue Stabilization Mechanism (RSM)?

A. Yes, I have.

Q. Have you reviewed the Rebuttal Testimony of Staff witness Busch regarding the Company's proposal for an RSM?

A. Yes, I have.

Q. What is OPC's position regarding the Company's request for an RSM?

A. OPC opposes the Company's proposed RSM in this proceeding[1] (Mantle p. 1:17).

Q. What does OPC witness Mantle propose that the Commission should consider when determining whether it approves, modifies, or rejects the Company's request for an RSM?

A. Ms. Mantle proposes two questions for the Commission to consider when determining whether it approves, modifies, or rejects MAWC's request for an RSM:

1) Has the lack of a RSM resulted in MAWC having insufficient funds to provide safe and adequate service and earn a sufficient rate of return ("ROR")?; and
2) Would an RSM provide benefits to MAWC's customers that are greater than the increase in risks that they are being asked to assume?

Q. How do you respond to Ms. Mantle's proposal that the Commission should determine whether the lack of an RSM has resulted in the Company having insufficient funds to provide safe and adequate service and earn a sufficient ROR?

A. Ms. Mantle states that "an RSM should not be considered a default option for MAWC"[2] and I agree with that statement. However, Ms. Mantle's first criterion makes an RSM a final option that should only be used if the Company cannot fund safe and adequate service

[1] Mantle RT, p. 2, lines 1-7.
[2] Mantle RT, p. 3, line 22.

any other way, which I do not agree with. As I stated in my Direct Testimony[3], Section 386.266.5(1), RSMo, states that the Commission may approve RSM rate schedules provided if it finds the adjustment mechanism "is reasonably designed to provide the utility with a sufficient opportunity to earn a fair return on equity." This legislative criterion speaks for itself. If the RSM provides the Company with a better opportunity to earn a fair return on equity than it has without the RSM then it is logical to conclude that the RSM is reasonably designed to provide the utility with a sufficient opportunity to earn a fair return on equity. It is that criterion that should be used to judge the reasonableness of the RSM.

Q. How do you respond to Ms. Mantle's proposal that the Commission should determine whether the RSM would provide benefits to MAWC's customers that are greater than the increase in risks that they are being asked to assume?

A. I disagree that this test is encompassed by the authorizing statute. Again, the primary standard for approval in the enabling legislation is that the RSM is reasonably designed to provide a sufficient opportunity to earn a fair return on equity. As to the impact on customers, it is important to note that at the end of this proceeding the Commission will approve a revenue requirement that it deems necessary for the Company to provide safe and reliable service and adequately invest in and maintain its system going forward. Stated differently, the revenue requirement can be seen as an amount of revenue that the Commission deems necessary for customers in total to contribute to the Company in order to ensure safe and reliable service and adequate investment in the system. Given this, implementing a ratemaking mechanism that ensures this collection of identified revenue actually happens cannot be seen as an undue imposition on customers.

[3] Rea DT, p. 52, lines 19-20.

Q. How do you respond to the argument that the RSM moves the risk of revenue recovery from the Company to the Company's customers with no corresponding reduction in revenue requirement to compensate customers for the shift in risk[4]?

A. I don't agree that the RSM moves risk from the Company to the Company's customers as there is already revenue/bill impact risk today for both the Company and its customers without an RSM. The Company experiences the risk of revenue shortfalls primarily due to declining usage and cooler and wetter weather conditions in the summer but has opportunities for more revenues with hotter and dryer weather conditions in the summer and has opportunities for higher revenues due to customer growth. Customers have bill impact risks in both directions due to weather conditions and have opportunities for lower bills if they reduce their consumption (which will remain even with implementation of the RSM as I explain later in my Surrebuttal Testimony), but also have risk for higher bills if consumption increases for various reasons, the COVID-19 pandemic being one example. It is more accurate to say that the RSM changes and rebalances the revenue/bill impact risk profile between the Company and its customers than it is to say that the RSM moves risk en masse from one party to the other for which one of the parties should be compensated.

Q. How do you respond to the arguments that under an RSM the Company would receive a set amount of revenue regardless of the weather or regardless of a drop in the number of customers[5]?

A. I agree that under an RSM the Company would receive a set amount of revenue equal to the Company's ordered revenue requirement for the applicable customer classes in this case in the long run, although in any given year that is not guaranteed as the RSM surcharges

[4] Mantle RT, p. 4.
[5] Mantle RT, p. 7.

or credits would be effective a year after any variations in revenues from approved levels occurred. The factors that cause revenue swings are more varied, however, than Ms. Mantle implies. Weather will affect revenues in both directions, with hot and dry summers causing bills and revenues to go up which would be mitigated in the next year by an RSM, and cool wet summers would cause revenues to go down, which again would be mitigated by the RSM in the following year. Customer loss could occur, and declining consumption could continue, both of which would cause bills and revenues to go down, but there could also be organic growth in customers (which has generally been the case), which could cause revenues to increase. Additional factors, such as the COVID-19 pandemic, can also cause bills and revenues to go up. All of these factors impact customer bills both positively and negatively from the Company's and the customer's point of view, and all of these factors in both directions would be mitigated by the proposed RSM.

Q. Have you conducted an analysis of the expected volatility in revenues that may result based on the Company's proposed rates in this proceeding?

A. I have. Schedule CBR-1 ST provides an analysis of the expected volatility and revenues that may result going forward based on the Company's proposed rates in this proceeding and based on historical patterns and trends in usage and customer accounts.

Q. Please describe your analysis?

A. This analysis of volatility contains three different pieces:

1) The first component shows the general **trend**, upwards or downwards, in revenues going forward that can be expected at the Company's proposed rates based on historical trends in customer counts and usage.
2) The second component shows historical **volatility** around that general trend which

is due to any variety of factors that cause usage to go up or down which could include weather conditions, but could also include other factors such as the COVID-19 pandemic, changes in customer accounts, etc.

3) The third component shows the expected **impacts** on customers on a going forward basis that includes an expected impact based on an assumption of continuing trends, the potential range of impacts based on historical volatility, and the likelihood in any given year going forward of surcharges or credits.

It is important to note that this volatility analysis is not an analysis of historical revenues as they were recorded because historical revenues are the product both of changes in usage and customer counts over time and changes in rates. An appropriate analysis of the volatility of revenue washes out the impact of changes in rates over time and looks only at the expected changes in revenues over time given a constant set of rates which is what the Company will experience going forward once new rates are set at the end of this proceeding until rates are set again at some future point at the end of a future rate case.

Q. What does your analysis show?

A. The volatility analysis yields in Schedule CBR-1 ST shows the following:

1) The annual downward **trend** in revenues going forward at the Company's proposed rates assuming continued trends upward or downward in usage and customer accounts is expected to be approximately $4 million per year. As a practical matter this means that on a going forward basis, assuming no change in weather or any other factor that impacts customer counts or usage and only considering continuing trends in customer growth, usage per customer declines, etc., we expected that revenues will decline by approximately $3.6 million per year assuming the

Company's proposed rate design.

2) Annual volatility in revenues around the expected result is approximately plus or minus $16.6 million (one standard deviation above or below the mean). As a practical matter, this means that on a going forward basis given historical fluctuations in sales and customer counts, we expect revenues to be within $21.2 million of the projected amount for the year 80% of the time. This also means that 10% of the time we would expect revenues to be at least $21.2 million higher than projected based on historical trends in usage and customer counts and 10% of the time we would expect revenues to be at least $21.2 million dollars below projected revenues.

3) The expected **impact** on customers of the proposed RSM is shown in the table below:

	Surcharge Expected Value	Probability of Surcharge	Probability of Credit	80/20 Surcharge	80/20 Effective Credit
Year 1	N/A	N /A	N/A	N/A	N/A
Year 2	$0.0000	50%	50%	$0.0524	-$0.0524
Year 3	$0.0090	59%	41%	$0.0619	-$0.0440
Year 4	$0.0182	67%	33%	$0.0717	-$0.0354
Year 5	$0.0275	74%	26%	$0.0817	-$0.0266

In the second year of new rates (the first year that an RSM would be effective), there would be a 50/50 probability of a surcharge or a credit assuming that billing determinants are set appropriately in this proceeding with an 80% probability that the surcharge or credit would be within $0.0524 per hundred gallons. In the third year of new rates (the second year that an RSM would be effective), we expect a 59% chance of a surcharge and a 41% chance of a credit. The expected level of the surcharge in Year 3 is $0.0090 per hundred gallons

assuming continuing trends in usage and customer counts and no additional volatility.

Q. Why do you make a point of saying there would be a 50/50 probability of a surcharge or a credit in the first year of the RSM assuming that billing determinants are set appropriately in this proceeding?

A. It is important to note that in the first year of rates, the amount of revenue collected will only be equal to the Company's approved revenue requirements if usage in the first year is equal to the usage that was projected in the rate case. Overstating billing determinants in the rate case at a level that is higher than what is likely to actually happen, which I believe will be the case if Staff's position on residential usage is used to set billing determinants in the first year, will automatically result in a revenue deficiency even if there is no declining usage and no external factors that otherwise affect usage. The 50/50 chance of a credit is only true if billing determinants accurately reflect usage that is likely to be seen on the system. Overstating billing determinants, as Staff proposes, will automatically result in lower revenues, which will increase the likelihood of surcharges under the RSM.

Q. Turning to the issue of the impact of the proposed RSM on customers, Ms. Mantle states that an **RSM will introduce uncertainty to customers and that customers would be faced with weather risks, the risks of revenue reductions due to customers leaving MAWC, and the risks that their bills will be higher because their neighbors are using less water. She states that customers would lose the predictability of how their actions affect their bills if the Commission approves a RSM for MAWC.[6] Do you agree with this point of view?**

[66] Mantle RT, p. 11-12.

A. No. To the extent that customers worry about the risks that effect water bills and consumption, those risks are already in place as I have previously testified. Customers who use water for irrigation already face weather risk. The RSM would actually reduce that risk for customers. While there is upward pressures on bills due to general declining usage and the potential for customer loss across the system, there is downward pressure on bills due to organic customer growth and the customers own ability to improve water efficiency. The large differences between the existing volumetric rates for water service and the potential amounts of RSM surcharges and credits means that there is no loss of predictability of how their future water consumption decisions would affect their bills.

Q. Have you estimated the potential impact that the Company's proposed RSM would have on residential customer bills?

A. Yes. The expected value of the surcharge in the third year of rates is $0.0090 per hundred gallons of usage. For a residential customer using 5,000 gallons per month, this charge represents an increase of approximately $0.45 per month.

Q. Ms. Mantle casts doubt on the idea that an RSM will open the path to greater water efficiency by saying that the RSM will send mixed signals to customers and if all customers improve their water efficiency equally, their bills will not change because the RSM charge will increase to assure MAWC gets a set revenue and furthermore if their bill does not reflect monetary savings, then customers will be less likely to implement water saving measures. Do you agree?

A. No. My personal experience managing energy efficiency programs in the electric and gas utility industry tells me that the RSM will no more send mixed and confusing price signals to water customers than energy efficiency cost recovery mechanisms send mixed and

confusing price signals to gas and electric utility customers who invest in energy efficiency measures to save on utility bills. It is highly unlikely that all of MAWC's water customers will do the same thing at the same time to reduce water consumption and improve efficiency equally and therefore negate bill savings for everyone because of counteracting increases in the RSM. But even if they did, experience shows that customers will act in their own self-interest when making decisions about investments or purchases that reduce utility (water) consumption and will not be attempting to analyze what impact those decisions might have on utility rates in general and whether those changes in utility rates will wipe out their bill savings. The idea that the existence of an RSM will so demoralize MAWC water customers to the point that they simply give up trying to be more efficient in their water consumption is farcical. If customers use less water, their bills will go down. This is true today and it will be true under an RSM.

Q. Do you agree with Company Witness Watkins when he says in his Direct Testimony that "[n]o matter what happens with sales, customers who use less water will pay less"?[7]

A. I do. As an example, a family that uses 5,000 gallons a month that takes a simple act of replacing a standard showerhead with a low-flow showerhead potentially could save up to 225 gallons of water use per month which represents a 4.5% reduction in water usage. At the Company's proposed volumetric rate for Rate A of $0.8714 per hundred gallons, this represents an approximate $2.00 per month in savings which far outweighs the $0.45 per month increase associated with a potential RSM surcharge I testified to previously. Even a reduction in usage of 1.5% would result in savings under this scenario.

[7] Watkins DT, p. 12.

Q. Turning to Mr. Busch's Rebuttal Testimony, what is Staff's position regarding the Company's request for an RSM?

A. Staff also opposes adoption of the Company's proposed RSM.

Q. Mr. Busch states that it is not the Commission's responsibility to guarantee that a utility will earn its authorized revenue, but that the Commission gives the utility the opportunity to earn its authorized revenue.[8] Do you agree with that statement?

A. It is the Commission's responsibility to give a utility a reasonable opportunity to earn its authorized return on equity. As I previously testified, Section 386.266.5(1), RSMo, states that the Commission may approve RSM rate schedules if it finds the adjustment mechanism "is reasonably designed to provide the utility with a sufficient opportunity to earn a fair return on equity." If the RSM provides the Company with a better opportunity to earn a fair return on equity than it does without the RSM then it is logical to conclude that the RSM is reasonably designed to prove the utility with a sufficient opportunity to earn a fair return on equity. It is that criterion that should be used to judge the reasonableness of the RSM.

Q. Mr. Busch takes issue with the Company's statements that 19.4% of revenues are collected through customer charges while 80.6% of revenues are variable due to the volumetric rate.[9] Do you have a response to that statement?

A. It is true that 81% of revenues being collected through the volumetric rate. That does not imply that 81% of the Company's revenues are at risk from changes in water consumption. The volatility analysis in Schedule CBR-1 ST is the most appropriate way of identifying the volatility of and trends in revenues that one could expect to see going forward due to

[8] Busch RT, p. 3.
[9] Busch RT, pp. 5-6.

the likely range of year-to-year changes in water consumption among the Company's customers.

Q. Mr. Busch provides a table showing that Company revenues have increased from 2012 through 2021 in an attempt to show that revenues are in fact increasing over time and the RSM is not needed.[10] How do you respond to this?

A. Mr. Busch's analysis here is simply not relevant. The analysis that Mr. Busch provides is just a statement of the revenues the Company has reported from 2012 through 2021[11]. It does not measure volatility and it does not show changes in revenues due to changes in usage. Company revenues have increased from 2012 through 2021. These increases are almost exclusively due to changes in prices and rates. Directional changes in prices are not a factor for consideration with the RSM, as the RSM is designed and intended to provide stability to bills and revenues between base rate changes, not over a long multi-year period that includes multiple base rate changes.

Q. Mr. Busch states that implementation of an RSM could actually harm customers, not help customers as you have suggested in your Direct Testimony.[12] How do you respond to this statement?

A. Mr. Busch states that the RSM does not reward the customers who are trying to control their usage to lower their bills.[13] This is not true. A customer who controls and reduces their usage will always have a lower bill regardless of whether an RSM is in place or not, as the potential ranges of an RSM surcharge are very small compared to the base volumetric rate, as I have previously testified. The impact on customer bills as a total percentage will

[10] Busch RT, p. 6.
[11] Busch RT, p. 6.
[12] Busch RT, p. 7.
[13] Busch RT, p. 7, lines 17-18.

likely not be significant enough to change an individual customer's customer behavior one way or the other. Mr. Busch paints a picture of wildly swinging RSM surcharges and credits from one year to the next that confuse and frustrates customers. This scenario is simply not plausible given the relative magnitudes of the various potential surcharges and credits of the RSM relative to the Company's base volumetric rates.

Q. Do you agree with Mr. Busch that an RSM can cause intra-class subsidization[14]?

A. No, because the relationships between how much customers pay for water service within a given customer group will still be based on the amounts of water different customers use.

Q. Do you agree with Mr. Busch that implementation of an RSM transfers revenue risk from the Company to customers?

A. No. As I previously stated, there are already risks and opportunities related to revenues and bill impacts for both the Company and its customers. It is more accurate to say that the RSM changes and rebalances the revenue/bill impact risk profile between the Company and its customers than it is to say that the RSM moves risk en masse from one party to the other.

Q. Why should the Commission reject OPC and Staff's position on the RSM and instead approve the Company's proposed RSM?

A. The Company's proposed RSM is an appropriate ratemaking mechanism that ensures that the Company's customers will contribute an amount of revenue needed to provide safe and reliable service and fund an appropriate level of investment and maintenance of the system consistent with the approved revenue requirement in this case. As I previously stated, given that the revenue requirement can be seen as an amount of revenue that the

[14] Busch RT, p. 8.

Commission deems necessary for customers in total to contribute to the Company to ensure safe and reliable service and adequate investment in the system, implementing a ratemaking mechanism that ensures that this collection of revenue actually happens cannot be seen as an undue imposition on customers. The Company's proposed RSM meets the legislative standard that the RSM be reasonably designed to provide the utility with a sufficient opportunity to earn a fair return on equity and should be approved.

III. RESIDENTIAL USAGE NORMALIZATION

Q. Have you reviewed Staff witness Robertson's Rebuttal Testimony regarding the Company's modeling of residential water usage.

A. Yes, I have.

Q. What concerns does Mr. Robertson raise regarding the Company's modeling approach?

A. Mr. Robertson raises two specific concerns about the Company's modeling approach. The first concern is that Mr. Robertson questions using weather/climate data related to an individual calendar month to explain the effect on a specific billing month's usage.[15] The other concern is that Staff questions the length and/or timeframe that the impact of COVID-19 is included in MAWC's statistical linear regression analysis.[16]

Q. What concerns has Mr. Robertson raised around the weather and climate data used by the Company in its statistical modeling?

A. Mr. Robertson's concern regarding the modeling of weather relates to the differences between billing month usage data and calendar month climate data. Mr. Robertson

[15] Robertson RT, p. 3, lines 10-11.
[16] Robertson RT, p. 5, lines 5-6.

correctly states that a billing month cycle does not necessarily run from the first day of the month to the last day of the month and that a billing month's usage may be affected by a climate pattern that spans multiple months. He goes on to state that depending on what date the billing cycle began, a billing month may be impacted by weather from the preceding month (which is true) or the following month (which could never be true), in addition to the current month. [17]

Q. How do you respond to Mr. Robertson's concerns regarding the Company's modeling of weather?

A. While it is true that the Company's modeling approach assigns a single value for cooling degree days ("CDD") and precipitation to a single month in the statistical modeling approach, it is not correct that these values represent calendar month weather observations. The CDD values are in fact weighted averages of the current month and the previous month. As an example, a CDD value for July is a weighted average of CDDs for June and July, thus representing the fact that billing month water consumption is a product of both weather in July and the previous June. The precipitation variable is a weighted average of three months which includes the current month and the two previous months, so in the same example a precipitation value for July is a weighted average of above or below normal precipitation for May, June, and July thus representing the fact that billing month water consumption is a product of precipitation not just in July, but in the previous May and June as well.

Q. What concerns has Mr. Robertson raised around the Company's modeling of COVID-related impacts?

[17] Robertson RT, p. 3.

A. Mr. Roberson takes issue with the Company's use of the COVID-19 explanatory variable and its use to explain changes in usage beginning in April 2020 and remaining through March 2022. Mr. Roberson believes the COVID-19 variable should be removed as early as June 2020, because as Mr. Robertson states, Governor Mike Parson announced that Missouri would fully reopen on June 16, 2020 and in addition, in June of 2020, the United States Department of Labor - Occupational Safety and Health Administration published "Guidance on Returning to Work," which assists employers and employees in safely returning to the workplace and reopening businesses. Based on this, it is Staff's position that it is reasonable to remove the impact of COVID-19 from the analysis as of June 16, 2020.[18]

Q. Does Mr. Robertson raise any additional concerns around the Company's approach to declining usage?

A. Yes. Mr. Robertson takes issue with the Company's supposed position that declining usage for residential customers should continue indefinitely[19] Mr. Robertson states that in its linear regression model, MAWC does not account for a change in the trend of declining usage as MAWC's proposed amount of declining usage continues indefinitely and that the Company does not explain why. Mr. Robertson does not take issue with the reasoning behind the trend of declining residential use (caused by more efficient appliances, improvements in infrastructure, regulatory conservation efforts, changes in customer discretionary use, etc.). but states that at some point there must be a logical plateau and that usage will only decline to a certain point, in order to sustain the lifestyle of a typical

[18] Robertson RT, p. 4.
[19] Robertson RT, p. 5, lines 9-10.

Missouri customer.[20]

Q. How do you respond to Mr. Robertson's concerns regarding the Company's modeling of COVID-related impacts?

A. The COVID-19 variable used in the statistical models is used to identify unusually high or low usage in a particular class specifically related to the COVID-19 pandemic. The length of time the variable should be in effect should be driven by changes in actual usage and the return of usage patterns to pre-pandemic levels, not based on political considerations. Declaring a state to be fully reopened as of a date certain does not mean that consumption levels have returned to normal. The consideration on how this variable should be handled in the statistical modeling should be based on an analysis of actual water consumption.

Q. Please provide a response to Mr. Robertson's concerns about the Company's assumption that declining usage will extend indefinitely into the future?

A. It is not the Company's position that declining usage will continue indefinitely. Mr. Robertson is correct when he says that at some point there must be a logical plateau and that usage will only decline to a certain point.[21] There is no evidence however to suggest that this plateau is happening now or will happen any time soon. The goal in this proceeding is to set billing determinants for the 12-month period ended May 2023, not some far-distant time period that is years away. It is clear from the data I provided in my Rebuttal Testimony,[22] that residential usage per customer has been declining over the past several years and has been declining over the last five years once the effects of weather and the COVID-19 pandemic have been accounted for. It is reasonable based on a sound

[20] Robertson RT, p. 6, lines 7-13.
[21] Robertson RT, p. 6.
[22] Rea RT, p. 5 Charts 1 and 2.

analysis of the data that this decline will continue at least to the period of time for which rates are being set in this proceeding.

Q. Have you compared the results of the two approaches to analyzing residential water usage proposed by the Company and Staff?

A. Yes. In my revenue Rebuttal Testimony at pp. 5-6, I discuss the usage and revenue impacts of the two different approaches to analyzing residential customer usage in this case.[23] As I stated in my Rebuttal Testimony, the revenue impact associated with the differences in residential usage is significant. For St. Louis County customers, the difference in estimates is worth approximately $9.8 million in present rate revenue between Staff's position and the Company's position, with Staff's methodology yielding a higher present rate revenue amount. For Non-St. Louis County customers, the difference is approximately $4.0 million in present rate revenue between Staff's position and the Company's position, with Staff's methodology yielding a higher present rate revenue amount. The total difference in present rate revenues between Staff's position and the Company's position is approximately $13.8 million.[24]

Q. After reviewing Staff's Rebuttal Testimony, do you still support the Company's statistical modeling approach to the analysis of residential water consumption?

A. I do. I continue to recommend that the Commission adopt the Company's approach to calculating residential billing determinants, which includes adjustments for customer growth and adjustments for declining consumption, both of which have been demonstrated through the Company's analysis of usage and customer counts.

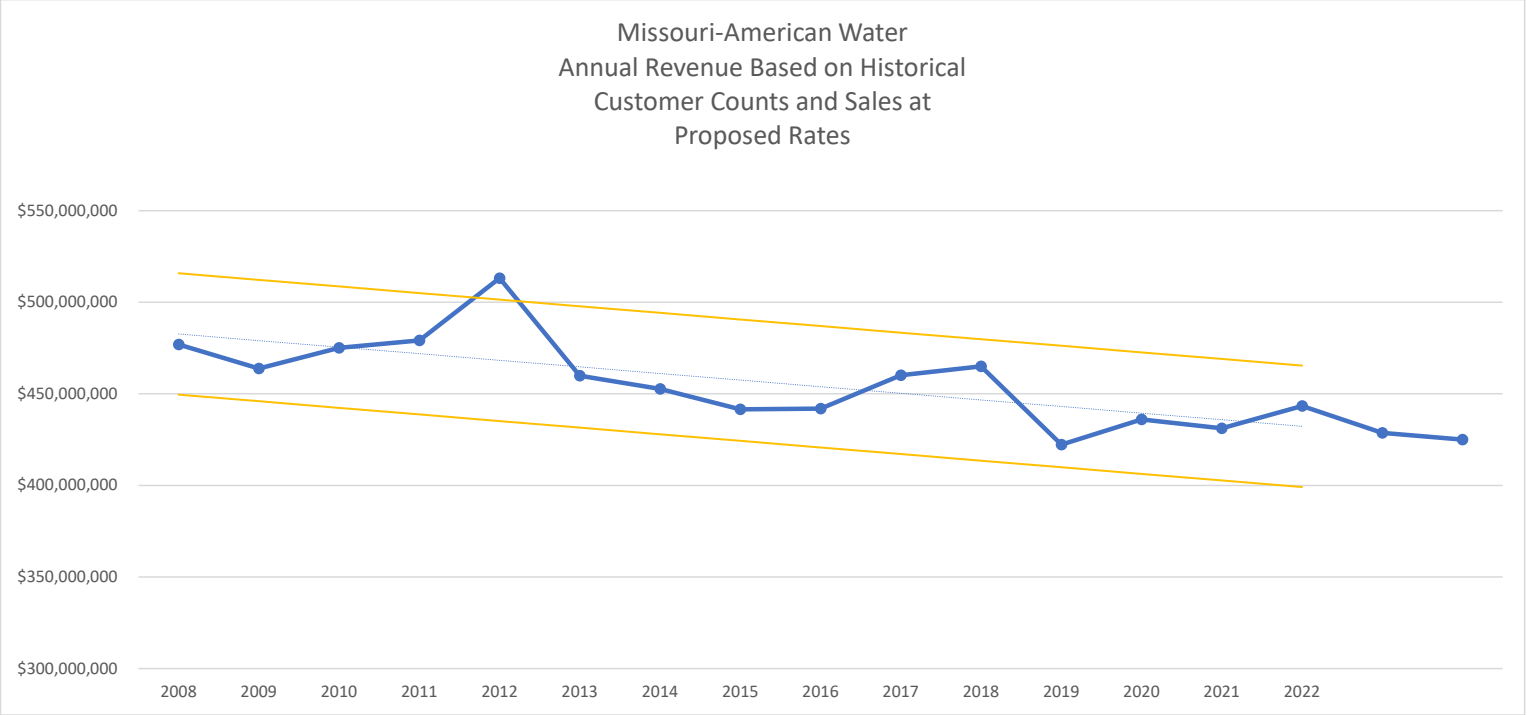
[23] Rea Rebuttal, pp. 5-6.
[24] Rea RT, pp. 5-6.

Q. Does this conclude your Surrebuttal Testimony?

A. Yes.

Missouri-American Water Company
RSM Analysis
Annual Revenue Volatility at Proposed Rates

Schedule CBR-1 ST
Page 1 of 1



Annual Revenue Decline (Forecast):	$ (3,602,089)	
Annual Uncertainty:	$ 16,573,504	+/- 1 standard deviation above or below the trend line
80/20	$ 21,247,232	
RSM Sales	410,084,939	
RSM Usage Decline	(4,456,015)	

Total revenue does not include revenue for fire service or Sales for Resale customers and is not adjusted for acquisitions

	Recoverable Definiciency Expected Value	Standard Deviation	RSM Volumes	Expected Surcharge	Probability of Surcharge	Probability of Credit	80/20	80/20
Year 1	N/A	N/A	410,084,939					
Year 2	$ -	$ 16,573,504	405,628,924	$ -	50%	50%	$ 0.0524	$ (0.0524)
Year 3	$ (3,602,089)	$ 16,573,504	401,172,909	$ 0.0090	59%	41%	$ 0.0619	$ (0.0440)
Year 4	$ (7,204,177)	$ 16,573,504	396,716,893	$ 0.0182	67%	33%	$ 0.0717	$ (0.0354)
Year 5	$ (10,806,266)	$ 16,573,504	392,260,878	$ 0.0275	74%	26%	$ 0.0817	$ (0.0266)