

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of the Petition of)	
Missouri-American Water Company for)	<u>File No. WO-2022-0176</u>
Approval to Change a Water and Sewer)	Tariff No. JW-2022-0234
Infrastructure Rate Adjustment (“WSIRA”))	Tariff No. JS-2022-0235

STAFF RECOMMENDATION

COMES NOW the Staff of the Missouri Public Service Commission (“Staff”), by and through counsel, and hereby submits its Staff Recommendation and Memorandum in this matter, stating:

1. Sections 393.1500-1509 of the Revised Statutes of Missouri provide that eligible water and sewer corporations may recover certain infrastructure system replacement costs through a Water and Sewer Infrastructure Rate Adjustment (“WSIRA”). Pursuant to Commission Rule 20 CSR 4240-4.017, Missouri-American Water Company (“MAWC”) filed its 60-day notice on December 30, 2021.

2. On March 4, 2020, Missouri-American Water Company (“MAWC”) filed its *MAWC’s Petition to Change a Water and Sewer Infrastructure Rate Adjustment* with the Missouri Public Service Commission (“Petition”). Attached to MAWC’s Petition are illustrative tariff sheets FORM NO. 13 P.S.C. MO. No. 13 4th Revised Sheet No. RT 11.1 Cancelling 3rd Revised Sheet No. RT 11.1; FORM No. 13 P.S.C. Mo. No. 13 4th Revised Sheet No. RT 11.2 Cancelling 3rd Revised Sheet No. RT 11.2; FORM NO. 13 P.S.C. MO. No. 26 3rd Revised Sheet No. RT 11.1 Cancelling 2nd Revised Sheet No. RT 11.1; and FORM No. 13 P.S.C. MO. No. 26 3rd Revised Sheet No. RT 11.2 Cancelling 2nd Revised Sheet No. RT 11.2, all of which bear an effective date of April 3, 2022. MAWC also filed tariff sheets in the tariff tracking files, JW-2022-0234 and JS-2022-0235.

3. On March 9, 2022, the Commission granted MAWC's motion to consolidate WSIRA cases WO-2022-0176 (water) and SO-2022-0177 (sewer), suspended MAWC's tariff sheets (JW-2022-0234 and JS-2022-0235) until August 31, 2022, and ordered Staff to file its recommendation no later than June 2, 2022. Missouri Industrial Energy Consumers ("MIEC") moved to intervene on March 28, 2022, and the Commission granted MIEC's motion on April 19, 2022. No other parties requested intervention.

4. MAWC submitted its Petition to recover WSIRA investment that was placed into service for the period November 1, 2021 to January 31, 2022, with estimated WSIRA costs for February 1, 2022 through April 30, 2022, also included. MAWC estimated in its Petition that it was entitled to WSIRA water revenues of \$18,257,189 and sewer revenues of \$394,746. This would equate to an increase of approximately 5.4% for water and 3.1% for sewer based on the base revenue level approved by the Commission in its most recent rate case.

5. Based upon its investigation and calculations, Staff concludes that MAWC's actual WSIRA rates should be designed to recover annual WSIRA revenues of \$18,302,606 from St. Louis County water customers, \$2,658,518 from All Other water customers, \$16,951 from Arnold sewer customers, and \$225,490 from All Other sewer customers for a total of \$21,203,565.

6. Staff's calculations reflect the overall weighted average cost of capital of 8.71% (tax grossed up rate of return) and MAWC's current depreciation rates, as reflected in the Stipulation and Agreement approved and ordered by the Commission on April 7, 2021, in Case No. WR-2020-0344, MAWC's last general rate case.

7. Staff based its conclusions on an examination of work orders and supporting documentation for the projects included for recovery in MAWC's proposed WSIRA filing, as well as from a review of the Stipulation and Agreement in Case No. WR-2020-0344. Staff agrees with the methodology utilized by MAWC in the calculation of the WSIRA revenue requirement for the purpose of this WSIRA filing. In its calculation of the WSIRA revenue requirement Staff utilized the replacement of estimated costs included in the WSIRA plant balances included in the Company's direct filing with the actual cost for that period.

8. MAWC is current on its quarterly assessment payments and is not delinquent for prior year's assessments, nor does MAWC have any past due annual reports. In addition, at this time MAWC's WSIRA has not been in effect for a twelve-month period so a reconciliation of WSIRA revenues is not required in this case.

WHEREFORE, for the reasons stated above and in Staff's attached Memorandum, incorporated herein, Staff recommends that the Commission issue an order in this case that:

- 1) Rejects the following proposed tariff sheets filed in Tariff No. JW-2022-0234:
 - a. FORM NO. 13 P.S.C. MO NO. 13 4th Revised Sheet No. RT 11.1 Cancelling 3rd Revised Sheet No. RT 11.1, and
 - b. FORM NO. 13. P.S.C. MO No. 13 4th Revised Sheet No. RT 11.2 Cancelling 3rd Revised Sheet No. RT 11.2;
- 2) Rejects the following proposed tariff sheets filed in Tariff No. JS-2022-0235:
 - a. FORM NO. 13 P.S.C. MO NO. 26 3rd Revised Sheet No. RT 11.1 Cancelling 2nd Revised Sheet No. RT 11.1, and
 - b. FORM NO. 13. P.S.C. MO No. 13 3rd Revised Sheet No. RT 11.2 Cancelling 2nd Revised Sheet No. RT 11.2;

- 3) Approves Staff's recommended WSIRA surcharge revenues in this docket in the incremental pre-tax revenue amount of \$18,302,606 for St. Louis County water service area, \$2,658,518 for All Other water service area, \$16,951 for Arnold sewer service area, and \$225,490 for All Other sewer service area, for a total in this filing of \$21,203,565 and a total current and cumulative WSIRA surcharge of \$40,206,346;
- 4) Authorizes MAWC to file revised tariff sheets for each utility, service area, and customer class, as reflected in Staff's Appendix 1, which generates \$21,203,565.

Respectfully submitted,

/s/ Don Cosp

Don Cosp

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Attorney for the Staff of the
Missouri Public Service Commission

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile, or electronically mailed to all parties and or counsel of record on this 2nd day of June, 2022.

/s/ Don Cosp

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. WO-2022-0176, Tariff No. JW-2022-0234 and JS-2022-0235

FROM: Amanda McMellen, Utility Regulatory Audit Unit Supervisor, Auditing Dept.
Ashley Sarver, Lead Senior Utility Regulatory Auditor, Auditing Dept.
Angela Niemeier, Senior Utility Regulatory Auditor, Auditing Dept.
Courtney Horton, Senior Utility Regulatory Auditor, Auditing Dept.
David Spratt, Senior Research/Data Analyst, Water, Sewer, & Steam Dept.

/s/ Ashley Sarver 6/02/2022
Auditing Department / Date

/s/ David Spratt 6/02/2022 /s/ Don Cospers 6/02/2022
Water, Sewer, & Steam Department / Date Staff Counsel's Office / Date

SUBJECT: Staff Report and Recommendation Regarding the Petition of Missouri-American Water Company for Approval to Change a Water and Sewer Infrastructure Rate Adjustment ("WSIRA")

DATE: June 2, 2022

BACKGROUND

On March 4, 2022, Missouri-American Water Company ("Company" or "MAWC") filed its *Petition to Change a Water and Sewer Infrastructure Rate Adjustment* ("Petition") with the Missouri Public Service Commission ("Commission"). The Company submitted its Petition pursuant to the provisions of the Missouri Water and Sewer Infrastructure Act, Sections 393.1500 and 393.1509, RSMo, and Commission Rule 20 CSR 4240-2.060(1). These sections provide that eligible water and sewer corporations may recover certain infrastructure system replacement costs without the need to file a formal rate case. Instead, these investments in infrastructure are recovered through a Water and Sewer Infrastructure Rate Adjustment ("WSIRA"). This is MAWC's second WSIRA filing since its most recent general rate case, Case No. WR-2020-0344, as well as its second WSIRA filing under the enabling statutes cited above.

The WSIRA process is a replacement for the former Infrastructure System Replacement Surcharge mechanism MAWC used to recover certain infrastructure investments outside of general rate cases in past years. Among the major differences between the former ISRS mechanism and the current WSIRA mechanism are the following: (a) the categories of plant investment eligible for WSIRA inclusion are expanded beyond those that were previously eligible for ISRS inclusion; (b) investment in any of MAWC's divisions are eligible for ISRS inclusion, while only investments made in MAWC's St. Louis County area were eligible for inclusion in ISRS; and (c) the overall cap on allowable WSIRA revenue collections is set at 15% of the revenues ordered in MAWC's prior general rate case, while the cap was previously set at 10% for ISRS purposes.

In the current case, MAWC submitted its Petition to recover WSIRA investment that was placed into service for the period November 1, 2021 to January 31, 2022, with estimated WSIRA costs for February 1, 2022 through April 30, 2022, also included. MAWC estimated in its Petition that it was entitled in this case to WSIRA water revenues of \$18,257,189 and sewer revenues of \$394,746. This would equate to an increase of approximately 5.4% for water and 3.1% for sewer based on the base revenue level approved by the Commission in its most recent rate case.

Attached to its March 4, 2022 Petition (filed in case numbers WO-2022-0176 and SO-2022-0177), MAWC filed four illustrative tariff sheets – two for the water WSIRA rates and two for the sewer WSIRA rates. These water tariff sheets include incorrect WSIRA rates for both service areas (St. Louis County and all other areas outside of St. Louis County) that were not based on MAWC’s new proposed WSIRA calculations. MAWC also filed on March 4, 2022 in WO-2022-0176 a substitute tariff with the same two water WSIRA rate tariff sheets that it filed with its Petition, but MAWC inadvertently still included the error.

On March 9, 2022, the Commission issued its *Order Directing Notice, Setting Deadlines, Directing Filings, Consolidating Cases, and Suspending Tariffs* establishing March 29, 2022, as the deadline to intervene in the instant case. The Commission directed Staff to file a report regarding its recommendation of the WSIRA filing no later than June 2, 2022.

On March 11, 2022 MAWC filed substitute illustrative water WSIRA tariff sheets in WO-2022-0176 correctly reflecting the new anticipated WSIRA rates. In the course of processing the petition the Company updated its numbers and Staff calculated the new WSIRA rates. As is routine in this type of proceeding, the Company will need to submit new substitute tariff sheets that reflect their updated calculations and proposed WSIRA rates. The tariff sheets filed by MAWC also have an issue date of March 4, 2022 and an effective date of April 3, 2022. The last WSIRA rates were issued on January 12, 2022 and became effective February 1, 2022. Following this WSIRA case, the tariff sheets will have different issue and effective dates.

Missouri Industrial Energy Consumers (“MIEC”) moved to intervene on March 28, 2022, and the Commission granted MIEC’s motion on April 19, 2022. No other parties requested intervention.

STAFF INVESTIGATION

The Missouri Water and Sewer Infrastructure Act, Section 393.1506 states:

A water or sewer corporation that provides water or sewer service to more than eight thousand customer connections may file a petition and proposed rate schedules with the commission to establish or change a WSIRA that will provide

for the recovery of the appropriate pretax revenues associated with the eligible infrastructure system projects, less the appropriate pretax revenues associated with any retired utility plant that is being replaced by the eligible infrastructure system projects. The WSIRA shall not produce revenues in excess of fifteen percent of the water or sewer corporation's base revenue requirement approved by the commission in the water or sewer corporation's most recent general rate proceeding; provided, however, that neither WSIRA revenues attributable to replacement of customer-owned lead service lines, nor any reconciliation amounts described in subdivision (2) of subsection 5 of section 393.1509, shall count toward the program cap.

As noted in its Petition, MAWC serves approximately 474,000 water customers and 16,500 sewer customers, thereby meeting the WSIRA filing criteria of a corporation providing water or sewer service to more than eight thousand customer connections. In addition, the cumulative amount of WSIRA revenues that will result from this petition does not exceed 15% percent, or \$52.2 million, of the base revenue levels of \$348 million approved by the Commission in the most recent MAWC general rate case, Case No. WR-2020-0344.

Revenue Requirement in WR-2020-0344	\$348,000,000
WSIRA Cap per Legislation	15%
WSIRA \$ Cap	\$52,200,000 ¹
Prior Approved - WSIRA WO-2021-0428	\$19,002,781
Current Case - WSIRA WO-2022-0176	\$21,203,565

As part of its examination of MAWC's Petition, Auditing Staff reviewed supporting workpapers, descriptions of WSIRA projects, MAWC's accounting entries, and a sample of invoices representing approximately 66.67% of total WSIRA investment costs, as well as other applicable documentation, such as work order authorizations. Staff communicated with MAWC personnel to clarify MAWC's Petition when necessary.

THE PETITION

As stated in its Petition, MAWC:

MAWC, per this Petition, seeks to change a WSIRA to provide for the recovery of costs for infrastructure system projects eligible for WSIRA recognition. The

¹ According to Section 393.1506.1., replacement of customer-owned lead service lines does not count toward the program cap. MAWC did not include in either this WSIRA filing or its prior WSIRA filing (Case No. WO-2021-0428) costs related to the replacement of customer-owned lead service lines.

proposed WSIRA rate schedules filed concurrently with this Petition reflect the appropriate pre-tax revenues necessary to produce net operating income equal to MAWC's pretax weighted cost of capital multiplied by the net original cost of the eligible infrastructure system projects, including recognition of accumulated deferred income taxes and accumulated depreciation associated with eligible infrastructure system projects which are included in the petition to establish or change a WSIRA pursuant to Sections 393.1500 through 393.1509. MAWC also seeks to recover all state, federal and local income or excise taxes applicable to such income and to recover all other costs such a depreciation expense and property taxes due within 12 months of this filing.

In its Petition, MAWC indicates that all of the eligible infrastructure system requirements are water and sewer utility plant projects that meet the following criteria:

1. They replace or extend the useful life of existing infrastructure;
2. They are currently in service and used and useful;
3. Do not include projects intended solely for customer growth; and
4. They were not included in MAWC's base rates in its most recently completed general rate case, Case No. WR-2020-0344.

MAWC also states that the water or sewer utility plant projects on which it seeks to base the WSIRA consist of the following:

1. Replacement of or cleaning and relining of existing water and sewer pipes, and associated valves, hydrants, meters, service lines, laterals, sewer taps, curb stops, and manholes;
2. Replacement of lead mains, lead goosenecks and lead service lines, and associated valves and meters;
3. Replacement of booster station and lift station pumps, with equipment of similar capacity and operation, as well as related pipes, valves, and meters;
4. Facilities relocations required due to construction or improvement of a highway, road, street, public way, or other public work by or on behalf of the United States, this state, a political subdivision of this state, or another entity having the power of eminent domain; provided that the costs related to such projects have not been reimbursed to the water or sewer corporation;
5. Replacement of water and wastewater treatment mechanical equipment with equipment of similar capacity and operation, including well and intake pumps, transfer pumps, high service or discharge pumps, and metering pumps; and

6. Replacement of Supervisory Control and Data Acquisition System (SCADA) components necessary for the operation and monitoring of remote installations including radio and cellular communication equipment, and programmable logic controllers.

The Company's Petition indicates that its proposed water rate schedule (including estimated amounts for February, March, and April of 2022) will produce WSIRA revenues of \$18,257,189 or an increase of 5.4% based on the base water revenue level approved by the Commission in its most recently completed general rate proceeding on an annualized basis.

The Company's Petition indicates that its proposed sewer rate schedule (including estimated amounts for February, March, and April of 2022) produce WSIRA revenues of \$394,746 or an increase of 3.1% based on the base sewer revenue level approved by the Commission in its most recently completed general rate proceeding on an annualized basis.

STAFF'S REVENUE CALCULATION

Staff agrees with the methodology utilized by MAWC in the calculation of the WSIRA revenue requirement for the purpose of this WSIRA filing. In its calculation of the WSIRA revenue requirement Staff utilized the replacement of estimated costs included in the WSIRA plant balances included in the Company's direct filing with the actual cost for that period.

During the course of its review, Staff discovered multiple amounts in the Company's workpapers where supporting documents were not initially provided by MAWC. Staff worked with the Company to obtain those missing documents. At the time of filing, all of that documentation has now been received.

In addition to the omitted invoices, Staff found instances where the invoice amounts did not match amounts contained within the Company's workpapers. Staff worked with the Company to pinpoint where these discrepancies lie. These discrepancies were use tax calculation that is applied to the invoices after the original invoice was created or materials and supplies added to the project.

THE WSIRA RATE SCHEDULES

Water

The proposed WSIRA water rate schedules include a volumetric rate for each affected customer class (Rate A, Rate B and Rate J), with the rate to be determined through the use of the customer class billing determinants from the Company's last rate case, Case No. WR-2020-0344, and the

WSIRA revenues allocated to each affected customer class (Rate A, Rate B and Rate J) for both the St. Louis County and the All Other Missouri District.

Sewer

The proposed WSIRA sewer rate schedules include the WSIRA Revenue Requirement for all sewer customers divided by the revenues authorized from the Company's last rate case, Case No. WR-2020-0344. This calculation represents a percent that will then be applied to the customer's total bill.

In response to Staff Data Request No. 0006, the Company stated the following for using this methodology to calculate the WSIRA sewer rate:

- Q. 1. Please provide an explanation why MAWC chose to use the percent of authorized revenues to calculate the sewer tariff rates as shown in Appendix C Revenue Requirement, Tariff Rates page 3 of 7, tab line 39.
 2. Please describe any other alternative rate designs considered by MAWC, other than what was filed for the calculation of the sewer rates. Please explain why each alternative rate design was not used.
- A. 1. MAWC water customers have metered usage and just as with the ISRS rates, the WSIRA rates can be designed based on that water usage. However, MAWC sewer customers are a mix of flat rate customers and metered customers. Because of this mix of rate design types for sewer customers, MAWC decided to propose a sewer WSIRA rate that is a percentage of the total customer bill. The revenues authorized in MAWC's most recent rate case were used as the basis because that should be the annual base rate revenue generated from the currently approved sewer rates. Therefore including a surcharge of 0.9475% (for Arnold) and 6.1147% (for Other Sewer) of the customer bill should generate the appropriate sewer WSIRA revenue requirement.
 2. MAWC also considered proposing a flat rate per customer to collect the appropriate sewer WSIRA revenue requirement, but the Company believed that to be less fair for customers than using a percentage of the customer bill. In the Company's proposed design, both larger commercial customers and smaller residential customers will bear a proportionate burden of the revenue requirement.

For this case, Staff agrees with and used the Company's methodology for calculating the WSIRA water and sewer rates based on Staff's calculation of the WSIRA water and sewer revenue requirements. Until the Commission promulgates WSIRA regulations, methodology for calculating rates will be reexamined in future WSIRA cases. The WSIRA rates are reflected in Appendix A1 through Appendix A4 to this Memorandum.

ASSESSMENTS AND ANNUAL REPORTS

MAWC is current on its quarterly assessment payments and is not delinquent for prior year's assessments. In addition, MAWC does not have any past due annual reports.

STAFF RECONCILIATION

Section 393.1509, RSMo requires a utility to reconcile the differences between the revenues resulting from a WSIRA and the appropriate pretax revenues as found by the commission at the end of each twelve-month calendar period that a WSIRA is in effect. At this time, MAWC's WSIRA has not been in effect for a twelve-month period so a reconciliation of WSIRA revenues is not required in this case.

STAFF'S CONCLUSIONS

In its Petition, MAWC filed to recover WSIRA qualifying infrastructure replacement costs incurred during the period of November 30, 2021, through April 30, 2022. In its initial filing, MAWC estimated an amount of additional plant investment for February, March, and April of 2022 as part of its request. At the time of filed Petition MAWC proposed, including estimated numbers, the WSIRA revenues for water \$18,257,189 and sewer \$394,746. During the case, MAWC provided supporting documentation (work orders and invoices) for the investments made in November 2021 through January 2022. The final updated workpapers include the actual WSIRA investments through April 2022 was received on May 19, 2022.

Based upon its investigation and calculations, Staff concludes the Company's actual WSIRA rates should be designed to recover annual WSIRA revenues of \$18,302,606 from St. Louis County water customers, \$2,658,518 from All Other water customers, \$16,951 from Arnold sewer customers, and \$225,490 from All Other sewer customers for a total of \$21,203,565.

Staff's calculations reflect the overall weighted average cost of capital of 8.71% (tax grossed up rate of return) and MAWC's current depreciation rates, as reflected in the Stipulation and Agreement approved and ordered by the Commission on April 7, 2021, in Case No. WR-2020-0344, MAWC's last general rate case.

Staff's calculations reflect the actual WSIRA eligible investment placed in service from November 1, 2021, through April 30, 2022. In addition, property taxes on plant placed in service prior to December 31, 2021 will be due within 12 months of this ISRS filing. As such, Staff has included these property taxes in this WSIRA revenue requirement.

Staff based its conclusions on an examination of work orders and supporting documentation for the projects included for recovery in MAWC's proposed WSIRA filing, as well as from a review of the Stipulation and Agreement in Case No. WR-2020-0344. As a result, it is Staff's conclusion that the project costs incorporated within this WSIRA filing meet the requirements of the governing statutes as summarized previously in this Memorandum in the discussion of the Company's Petition. As per the enabling statute, Staff nor the Commission is making a determination of the ultimate prudence of any of the projects included in this WSIRA filing.

STAFF'S RECOMMENDATION

Based on the above, Staff recommends that the Commission issue an order that:

1. Rejects the following proposed tariff sheets filed in Tariff No. JW-2022-0234:
 - a. FORM NO. 13 P.S.C. MO NO. 13 4th Revised Sheet No. RT 11.1 Cancelling 3rd Revised Sheet No. RT 11.1, and
 - b. FORM NO. 13. P.S.C. MO No. 13 4th Revised Sheet No. RT 11.2 Cancelling 3rd Revised Sheet No. RT 11.2;
2. Rejects the following proposed tariff sheets filed in Tariff No. JS-2022-0235:
 - a. FORM NO. 13 P.S.C. MO NO. 26 3rd Revised Sheet No. RT 11.1 Cancelling 2nd Revised Sheet No. RT 11.1, and
 - b. FORM NO. 13. P.S.C. MO No. 13 3rd Revised Sheet No. RT 11.2 Cancelling 2nd Revised Sheet No. RT 11.2;
3. Approves Staff's recommended WSIRA surcharge revenues in this docket in the incremental pre-tax revenue amount of \$18,302,606 for St. Louis County water service area, \$2,658,518 for All Other water service area, \$16,951 for Arnold sewer service area, and \$225,490 for All Other sewer service area, for a total in this filing of \$21,203,565 and a total current and cumulative WSIRA surcharge of \$40,206,346; and
4. Authorizes MAWC to file revised tariff sheets for each utility, service area, and customer class, as reflected in Staff's Appendix 1, which generates \$21,203,565.

Missouri-American Water Company
Case No. WO-2022-0176
Staff's WSIRA Water Rate Design Calculation
St. Louis District Water

	WSIRA Recovery		
	Staff Revenue Requirement	Billing Determinants Sales (000 Gal) (1)	WSIRA Rate per 1000 Gal.
Rate A	\$ 17,399,810	31,771,914	\$ 0.54765
Rate B	\$ 324,412	1,579,721	\$ 0.20536
Rate J	\$ 578,384	3,959,678	\$ 0.14607
	\$ 18,302,606	37,311,313	

(1) Per billing determinants in Case WR 2020-0344

	Proposed WSIRA Rate Design Per 1,000 Gallons		
	Current WSIRA Rate	Adjustment to Current WSIRA Rate (2)	Proposed WSIRA Rate to Use on Tariff
Rate Per 1000 Gal			
Rate A	\$ 0.48279	\$ 0.54765	\$ 1.03044
Rate B	\$ 0.18104	\$ 0.20536	\$ 0.38640
Rate J	\$ 0.12877	\$ 0.14607	\$ 0.27484

(2) Calculated per above

	Proposed WSIRA Rate Design Per 100 Gallons		
	Current WSIRA Rate	Adjustment to Current WSIRA Rate	Proposed WSIRA Rate to Use on Tariff
Rate Per 100 Gal			
Rate A	\$ 0.04828	\$ 0.05477	\$ 0.10304
Rate B	\$ 0.01810	\$ 0.02054	\$ 0.03864
Rate J	\$ 0.01288	\$ 0.01461	\$ 0.02748

Missouri-American Water Company
Case No. WO-2022-0176
Staff's WSIRA Water Rate Design Calculation
All Other District Water

	WSIRA Recovery		
	Staff Revenue Requirement	Billing Determinants Sales (000 Gal) (1)	WSIRA Rate per 1000 Gal.
Rate A	\$ 2,292,983	8,964,577	\$ 0.25578
Rate B	\$ 100,094	1,214,373	\$ 0.08242
Rate J	\$ 265,441	2,971,865	\$ 0.08932
	\$ 2,658,518	13,150,816	

(1) Per billing determinants in Case WR 2020-0344

	Proposed WSIRA Rate Design Per 1,000 Gallons		
	Current WSIRA Rate	Adjustment to Current WSIRA Rate (2)	Proposed WSIRA Rate to Use on Tariff
Rate Per 1000 Gal			
Rate A	\$ 0.25591	\$ 0.25578	\$ 0.51169
Rate B	\$ 0.08246	\$ 0.08242	\$ 0.16488
Rate J	\$ 0.08936	\$ 0.08932	\$ 0.17868

(2) Calculated per above

	Proposed WSIRA Rate Design Per 100 Gallons		
	Current WISRA Rate	Adjustment to Current WSIRA Rate	Proposed WSIRA Rate to Use on Tariff
Rate Per 100 Gal			
Rate A	\$ 0.02559	\$ 0.02558	\$ 0.05117
Rate B	\$ 0.00825	\$ 0.00824	\$ 0.01649
Rate J	\$ 0.00894	\$ 0.00893	\$ 0.01787

Missouri-American Water Company
Case No. WO-2022-0176
Staff's WSIRA Sewer Rate Design Calculation
Arnold Sewer

	WSIRA Recovery Staff Revenue Requirement
WSIRA Staff Revenue Requirement	\$ 16,951
Revenues Authorized in Case No. WR-2020-0344	\$ 6,273,964
Percent (%) Authorized Revenues	0.2702%

Customer Bill
\$ 0.10059

Proposed WSIRA Sewer Rate Design			
	Current WSIRA Rate	Adjustment to Current WSIRA Rate (1)	Proposed WSIRA Rate to Use on Tariff
Arnold Sewer	0.6773%	0.2702%	0.9475%
(1) Calculated per above			

Missouri-American Water Company
Case No. WO-2022-0176
Staff's WSIRA Sewer Rate Design Calculation
All Other Sewer

	WSIRA Recovery Staff Revenue Requirement
WSIRA Staff Revenue Requirement	\$ 225,490
Revenues Authorized in Case No. WR-2020-0344	\$ 6,394,237
Percent (%) Authorized Revenues	3.5265%

Customer Bill		
	\$	2.17371
	\$	1.55270

Proposed WSIRA Sewer Rate Design			
	Current WSIRA Rate	Adjustment to Current WSIRA Rate (1)	Proposed WSIRA Rate to Use on Tariff
All Other Sewer	2.5882%	3.5265%	6.1147%
(1) Calculated per above			