

Exhibit No.:	<b>Exhibit 101</b>
Issues:	Infrastructure System Replacement Surcharge
Witness:	Brian W. LaGrand
Exhibit Type:	Direct
Sponsoring Party:	Missouri-American Water Company
Case No.:	WO-2020-0190
Date:	May 22, 2020

**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. WO-2020-0190**

**DIRECT TESTIMONY**

**OF**

**BRIAN W. LAGRAND**

**ON BEHALF OF**

**MISSOURI-AMERICAN WATER COMPANY**

## AFFIDAVIT

I, Brian W. LaGrand, under penalty of perjury, and pursuant to Section 509.030, RSMo, state that I am Director of Rates and Regulatory Support for Missouri-American Water Company, that the accompanying testimony and schedules have been prepared by me or under my direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, I would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of my knowledge and belief.



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Brian W. LaGrand

May 21, 2020

Dated

**DIRECT TESTIMONY  
BRIAN W. LAGRAND  
MISSOURI-AMERICAN WATER COMPANY  
CASE NO. WO-2020-0190**

**TABLE OF CONTENTS**

I. Introduction.....2

II. ISRS Application .....4

**DIRECT TESTIMONY**

**BRIAN W. LAGRAND**

**I. INTRODUCTION**

1

2 **Q. Please state your name and business address.**

3 A. My name is Brian W. LaGrand, and my business address is 727 Craig Road, St. Louis,  
4 MO, 63141.

5

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

7 A. I am employed by Missouri-American Water Company (“MAWC”, “Missouri-  
8 American” or the “Company”) as the Director of Rates and Regulatory Support.

9

10 **Q. Please summarize your educational background and business experience.**

11 A. I received a Master of Business Administration degree from Washington University in  
12 St. Louis in 1998, with a concentration in Finance, and a Bachelor of Science in  
13 Business Administration degree from the University of Dayton in 1993, with a major  
14 in Accounting. After graduation from the University of Dayton, I was licensed in Ohio  
15 as a Certified Public Accountant, and was employed as an Auditor by J.D. Cloud and  
16 Associates until 1996. After graduating from Washington University, I spent two years  
17 at May Department Stores Company in the Capital Planning & Analysis department,  
18 focusing on the evaluation of capital investments. In 2000, I began working for  
19 Anheuser-Busch Companies as a Financial Analyst in the Treasury Group. My  
20 responsibilities included managing the foreign currency derivative portfolio in Risk  
21 Management and running the commercial paper and share repurchase programs in

1 Corporate Finance. In 2005, I moved into the Business & Wholesaler Development  
2 Group as a Sr. Business Analyst, where I worked on acquisitions of craft breweries and  
3 competitive analysis. In 2010, I joined American Water Works Service Company, Inc.  
4 (“Service Company”) as a Manager in the Corporate Finance Group. My focus  
5 included evaluation of acquisition opportunities across the country and the execution  
6 of many acquisitions, including several in Missouri. In November of 2016, I was  
7 promoted to my current position as Director of Rates and Regulatory Support for  
8 MAWC.

9

10 **Q. What are your current employment responsibilities?**

11 A. My responsibilities as Director of Rates and Regulatory Support include the following:  
12 1) preparing and presenting all rate change applications and supporting documents and  
13 exhibits as prescribed by management policies, guidelines and regulatory commission  
14 requirements; 2) preparing rate analyses and studies to evaluate the effect of proposed  
15 rates on the revenues, rate of return and tariff structures; 3) executing the  
16 implementation of rate orders, including development of the revised tariff pricing  
17 necessary to produce the proposed revenue level; 4) overseeing the preparation of  
18 revenue and capital requirements analyses; and 5) providing support for financial  
19 analyses, including preparation of applicable regulatory commission filings.

20

21 **Q. Are you generally familiar with the operations, books and records of MAWC?**

22 A. Yes.

23

24 **Q. Have you previously testified before the Missouri Public Service Commission?**

1 A. Yes. Please see **Schedule BWL-1** for a list of proceedings where I provided testimony  
2 before the Missouri Public Service Commission (“Commission”).

3

4 **Q. What is the purpose of your direct testimony in this proceeding?**

5 A. The purpose of my Direct Testimony is to sponsor and testify in support of MAWC’s  
6 request to change its ISRS.

7

8

## **II. ISRS APPLICATION**

9 **Q. Would you summarize MAWC’s ISRS Application?**

10 A. Yes. On March 2, 2020, MAWC filed an Application to change its ISRS. The  
11 application includes ISRS-eligible investments, net of Contributions in Aid of  
12 Construction, made between October 1, 2019 and March 31, 2020, annualized net  
13 depreciation expense, and property taxes due within the next 12 months. In the initial  
14 Application, the investment amounts for February and March were estimated.

15

16 **Q. Has the Company updated the investment amounts?**

17 A. Yes. MAWC updated the February and March investments to include actual numbers,  
18 rather than estimates. As a result of this process, the Company and Staff are now in  
19 agreement as to the amount of investment that should be included in the ISRS rate base.

20 The Company’s revised revenue requirement is now \$9,725,687. Please see **Schedule**  
21 **BWL-2.**

22

23 **Q. Do the Company and Staff agree on the total revenue requirement?**

24 A. Yes.

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**Q. Were any other adjustments made to the revenue requirement?**

A. Yes. MAWC’s last three ISRS cases (Files Nos. WO-2018-0373, WO-2019-0184, and WO-2019-0389) concerned an issue related to a potential tax normalization violation related to accumulated deferred income taxes. The Company subsequently received a Private Letter Ruling from the Internal Revenue Service (“IRS”) concerning this issue. In the revenue requirement above, the Company and Staff both included an additional \$35,328 to cure the normalization issue from those prior ISRS cases. The details of that calculation are included as **Schedule BWL-3**. The Private Letter Ruling is discussed further in the Direct Testimony of Company witness John Wilde.

**Q. Does this adjustment concern eligible infrastructure system replacements included in MAWC’s currently effective ISRS?**

A. Yes. This ISRS was established in File No. WO-2018-0373, where the issue first arose. The adjustment is calculated in regard to the plant included in MAWC’s ISRS in Files Nos. WO-2018-0373 (ISRS established), WO-2019-0184 (ISRS change), and WO-2019-0389 (ISRS change). Thus, the adjustment concerns recognition of accumulated deferred income taxes associated with the eligible infrastructure system replacements included in MAWC’s currently effective ISRS.

**Q. Was the possibility of a cure contemplated in a previous case?**

A. Yes. Prior to the issuance of an IRS ruling on MAWC’s PLR request, in File No. WO-2019-0389), Staff and MAWC entered into a *Partial Stipulation and Agreement*, which stated in part as follows:

1 If the IRS PLR indicates that the Commission’s treatment of the  
2 Deferred Tax Asset (NOL) has created a normalization violation,  
3 MAWC will file an application for an Accounting Authority Order  
4 (AAO), and Staff and OPC agree to support such AAO application, to  
5 permit MAWC to record a regulatory asset to capture the rate  
6 differential in an amount as may be necessary to cure such normalization  
7 violation, if any, identified by the PLR.  
8

9 The Office of the Public Counsel (“OPC”), while not a signatory, affirmatively  
10 indicated that it did not oppose the *Partial Stipulation and Agreement*, such that it was  
11 treated as unanimous in accordance with Commission Rule 20 CSR 4240-2.115. The  
12 Commission approved the agreement in its November 21, 2019, *Order Approving*  
13 *Partial Stipulation and Agreement and Approving Infrastructure System Replacement*  
14 *Surcharge*, issued in File No. WO-2019-0389.  
15

16 **Q. Why is the cure adjustment being proposed in this case rather than in an AAO**  
17 **and subsequent general rate case?**

18 A. First, the Company believes that providing for the cure in a direct manner provides  
19 more certainty in terms of truly curing the issue with respect to the IRS. As Company  
20 witness John Wilde explains, the IRS requires normalization violations to be remedied  
21 at the “next available opportunity.” Second, addressing the issue within the current  
22 ISRS provides a “cleaner” mechanism for recovery. That is, it is a more precise way  
23 to ensure that the Company collects no more and no less than the identified amount and  
24 allows recovery to be received from only those customers to which the ISRS applies,  
25 something that might not be so straightforward in a subsequent general rate case.  
26 Lastly, as a practical matter, the relatively small amount associated with the cure makes  
27 this solution more manageable.  
28



1 Q. Does this conclude your direct testimony?

2 A. Yes.

**Brian W. LaGrand**  
**Missouri American Water**  
**Director of Rates & Regulatory Support**

**Case Participation**

<b>Case Number</b>	<b>Case Type</b>	<b>Testimony Issues</b>
<b>Cases Before Missouri Public Service Commission</b>		
WO-2018-0184	ISRS	<b>Direct:</b> Infrastructure System Replacement Surcharge
WO-2017-0393	ISRS	<b>Direct:</b> Infrastructure System Replacement Surcharge
WR-2017-0285	General Rate Case	<p><b>Direct:</b> Company Accounting Schedules, Acquisitions, Revenue Requirement, Revenues, Rate Design, Rate Base, Depreciation Expense, Amortization Expense, Rate Case Expense, Minimum Filing Requirements</p> <p><b>Revenue Requirement Rebuttal:</b> Revenue Requirement, Present Rate Revenues, Rate Base, Depreciation Expense, Amortization Expense, Rate Case Expense</p> <p><b>Rate Design Rebuttal:</b> Water &amp; Sewer Cost Allocations, Arnold Rates, Miscellaneous Fees, Fire Tariffs</p> <p><b>Surrebuttal:</b> Water Rate Design, Fixed Charge, Offset Mechanism, Sewer Rate Design, Miscellaneous Fees, Low Income Tariff, Property Taxes, Customer Usage, Depreciation Expense, Negative Depreciation Reserves, Regulatory Deferrals, Rate Case Expense, Working Capital</p>
WU-2017-0351	Accounting Authority Order	<p><b>Direct:</b> Lead Service Line Replacement program, Cost Recovery, Accounting Authority Order</p> <p><b>Rebuttal:</b> Accounting Authority Order, Cost Recovery</p> <p><b>Surrebuttal:</b> Accounting Treatment</p>
WU-2017-0296	Accounting Authority Order	<p><b>Direct:</b> Property Tax Expense, Accounting Authority Order</p> <p><b>Surrebuttal:</b> Property Tax Expense, Accounting Authority Order</p>
WA-2012-0066	Application for Certificate	<b>Direct:</b> Financial Analysis of Saddlebrooke Acquisition
<b>Cases Before Illinois Commerce Commission</b>		
15-0458	Acquisition of the City of Grafton Sewer	<b>Direct:</b> Rate, Financial and Accounting aspects of the acquisition
14-0105	Acquisition of Hardin County Water	<b>Direct:</b> Rate, Financial and Accounting aspects of the acquisition, Illinois Small Systems Viability Act
13-0073	Acquisition of the City of Grafton Water	<b>Direct:</b> Rate, Financial and Accounting aspects of the acquisition

Missouri-American Water Company  
 ISRS Revenue Requirements Calculation  
 St. Louis County Operations

1	<b>Infrastructure System Replacement Surcharge Revenue Requirement</b>	
2		
3	<b>Water Utility Plant Projects--Replacement Mains, and Associated Valves and Hydrants (RM) RSMo 393.1000 (8a):</b>	
4	<u>Task Orders Placed in Service (TOPS):</u>	
5	STLC-Replacement Mains and Associated Valves and Hydrants	\$65,307,164
6	Net Contributions in Aid of Construction	(4,698)
7	Deferred Taxes	(8,582,268)
8	Accumulated Depreciation	(310,338)
9		
10	<b>Total Net 393.1000 (8a)</b>	<b>\$56,409,860</b>
11		
12	<b>Water Utility Plant Projects--Main Cleanings and Relinings (RM) RSMo 393.1000 (8b):</b>	
13	<u>Task Orders Placed in Service (TOPS):</u>	
14	STLC-Main Cleanings and Relinings	\$0
15	Net Contributions in Aid of Construction	0
16	Deferred Taxes	0
17	Accumulated Depreciation	0
18		
19	<b>Total Net 393.1000 (8b)</b>	<b>\$0</b>
20		
21	<b>Water Utility Plant Projects--Facilities Relocations (FR) RSMo 393.1000 (8c):</b>	
22	<u>Task Orders Placed in Service (TOPS):</u>	
23	STLC-Relocated Facilities	\$1,832,844
24	Net Contributions in Aid of Construction	(235,642)
25	Deferred Taxes	(186,772)
26	Accumulated Depreciation	(12,825)
27		
28	<b>Total Net 393.1000 (8c)</b>	<b>\$1,397,605</b>
29		
30	<b>Accumulated Depreciation and Deferred Taxes on Investment in Current ISRS</b>	
31	Accumulated Depreciation - Prior ISRS	(\$1,285,421)
32	Deferred Taxes - Prior ISRS	(63,486)
33	Deferred Taxes - Prior ISRS - Tax Rate Adjustment	1,634,341
34		
35	<b>Total</b>	<b>\$285,434</b>
36		
37	<b>Total ISRS Rate Base</b>	<b>\$58,092,900</b>
38		
39	Overall Pre-Tax Rate Of Return per Last Order	9.29%
40		
41	Revenue Requirement on Capital	\$5,396,830
42	Depreciation Expense	777,132
43	Property Taxes	3,748,783
44	Revenue Cap Adjustment	0
45		
46	<b>Total Revenue Requirement</b>	<b>\$9,922,745</b>
47		
48	<b>Adjustments:</b>	
49	Undercollection from ISRS reconciliation	-
50	Change in MO Corporate Tax Rate on Prior ISRS	(232,386)
51	Corrected Normalization from Prior ISRS Cases	35,328
52	<b>Adjusted Total Revenue Requirement</b>	<b>\$9,725,687</b>
53		
54	<b>Allocation of Revenue by Class</b>	
55	Rate A	\$9,712,135
56	Rate B	3,853
57	Rate J	9,699
58		
59	<b>Grand Total Revenues Collected in Proposed ISRS</b>	<b>\$9,725,687</b>

Book/Tax Depreciation Temporary Difference						
	Replacements		Relocations		Total All Property	
	2019	2020	2019	2020	2019	2020
<b>Plant Additions</b>						
Plant Additions	13,030,643	52,276,522	1,234,578	598,267	14,265,220	52,874,788
<b>Net Plant Additions</b>	<b>13,030,643</b>	<b>52,276,522</b>	<b>1,234,578</b>	<b>598,267</b>	<b>14,265,220</b>	<b>52,874,788</b>
<b>Total Tax Items</b>						
<b>Repairs Deduction</b>						
Net Plant Additions	13,030,643	52,276,522	1,234,578	598,267	14,265,220	52,874,788
Repairs %	55.4%	55.4%	55.4%	55.4%		
<b>Total Repairs Deduction</b>	<b>7,220,340</b>	<b>28,966,664</b>	<b>684,085</b>	<b>331,502</b>	<b>7,904,425</b>	<b>29,298,167</b>
<b>Bonus Depreciation</b>						
Net Plant Additions After Repairs	5,810,303	23,309,857	550,492	266,764	6,360,795	23,576,622
Bonus Depreciation %	0.0%	0.0%	0.0%	0.0%		
<b>Total Bonus Depreciation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Regular Depreciation</b>						
Net Plant Additions After Repairs and Bonus	5,810,303	23,309,857	550,492	266,764	6,360,795	23,576,622
Year 1 Depreciation Rate	2.0%	2.0%	2.0%	2.0%		
Months Included	12.0	5.0	12.0	5.0		
Year 2 Depreciation Rate	4.0%	4.0%	4.0%	4.0%		
Months Included	5.0		5.0			
<b>Total Regular Depreciation</b>	<b>213,044</b>	<b>194,249</b>	<b>20,185</b>	<b>2,223</b>	<b>233,229</b>	<b>196,472</b>
Taxable Income - Contributions	(4,731)	-	22,660	(259,392)	17,930	(259,392)
<b>Total Tax Deductions</b>	<b>7,428,653</b>	<b>29,160,913</b>	<b>726,930</b>	<b>74,333</b>	<b>8,155,584</b>	<b>29,235,247</b>
<b>Total Book Items</b>						
<b>Net Book Depreciation</b>						
Book Depreciation	111,398	198,940	9,951	2,874	121,350	201,814
Book Amortization	(33)	-	184	(1,273)	151	(1,273)
<b>Total Net Book Depreciation</b>	<b>111,365</b>	<b>198,940</b>	<b>10,135</b>	<b>1,601</b>	<b>121,501</b>	<b>200,541</b>
<b>Book/Tax Depreciation Temporary Difference</b>	<b>(7,317,288)</b>	<b>(28,961,973)</b>	<b>(716,795)</b>	<b>(72,733)</b>	<b>(8,034,083)</b>	<b>(29,034,706)</b>
<b>Net Operating Loss</b>						
					<b>2019</b>	<b>2020</b>
Net Plant Additions					14,265,220	52,874,788
Repairs Tax Basis					7,904,425	29,298,167
Method Life Basis					6,360,795	23,576,622
Book Depreciation Allocated to Repairs					67,324	111,121
Book Depreciation Allocated to Method Life					54,177	89,420
<b>Total Book Depreciation</b>					<b>121,501</b>	<b>200,541</b>
<b>Repairs Related NOL</b>						
Repairs Book Depreciation					67,324	111,121
Repairs Tax Deduction					7,904,425	29,298,167
<b>NOL Related to Repairs</b>					<b>(7,837,101)</b>	<b>(29,187,046)</b>
<b>Method Life Related NOL</b>						
Method Life Book Depreciation					54,177	89,420
Accelerated Tax Depreciation					233,229	196,472
<b>NOL Related to Method Life</b>					<b>(179,053)</b>	<b>(107,052)</b>
<b>Total NOL for ISRS Purposes</b>						
Repairs Related					0	0
Method Life Related					(179,053)	(107,052)
<b>Taxable Income</b>					<b>(\$179,053)</b>	<b>(\$107,052)</b>
<b>Net Deferred Income Taxes</b>						
					<b>2019</b>	<b>2020</b>
Book/Tax Depreciation Temporary Difference	(7,317,288)	(28,961,973)	(716,795)	(72,733)	(8,034,083)	(29,034,706)
Effective Tax Rate	23.8%	23.8%	23.8%	23.8%	23.8%	23.8%
<b>Deferred Tax Liability</b>	<b>(1,744,451)</b>	<b>(6,904,572)</b>	<b>(170,885)</b>	<b>(17,340)</b>	<b>(1,915,336)</b>	<b>(6,921,911)</b>
NOL	175,239	104,772	3,814	2,280	179,053	107,052
Effective Tax Rate	23.8%	23.8%	23.8%	23.8%	23.8%	23.8%
<b>Deferred Tax Asset</b>	<b>41,777</b>	<b>24,978</b>	<b>909</b>	<b>544</b>	<b>42,686</b>	<b>25,521</b>
<b>Net Deferred Income Taxes</b>	<b>(1,702,674)</b>	<b>(6,879,594)</b>	<b>(169,976)</b>	<b>(16,796)</b>	<b>(1,872,649)</b>	<b>(6,896,390)</b>

	ISRS Revenue Requirement	Customer Usage (000g) <sup>1</sup>	Required Rate per 1,000 Gallons	
1				
2	Rate A	\$9,712,135	32,207,358	\$0.30155
3	Rate B	3,853	1,609,828	\$0.00239
4	Rate J	9,699	4,227,969	\$0.00229
5	<b>Total</b>	<b>\$9,725,687</b>	<b>38,045,155</b>	

6

7 <sup>1</sup> Per billing determinants in Case WR-2017-0285

8

	Current Rate	Adjustment to Current Rate	Proposed Rate	
9				
10	<b>Rate Per 1,000 Gallons</b>			
11	Rate A	\$0.66132	\$0.30155	\$0.96287
12	Rate B	\$0.01224	\$0.00239	\$0.01463
13	Rate J	\$0.01170	\$0.00229	\$0.01399

14

	Current Rate	Adjustment to Current Rate	Proposed Rate	
15				
16	<b>Rate Per 100 Gallons</b>			
17	Rate A	\$0.06613	\$0.03016	\$0.09629
18	Rate B	\$0.00122	\$0.00024	\$0.00146
19	Rate J	\$0.00117	\$0.00023	\$0.00140

Property Tax Estimate - St. Louis County				
Year Placed in Service	2018	2019	2020	Total
Vintage Year	2	1	N/A	
<b>Plant Additions</b>				
WO-2018-0373	64,158,929	0	0	
WO-2019-0184	17,767,926	48,399,714	0	
WO-2019-0389	0	54,449,158	0	
WO-2020-0190	0	14,265,220	52,874,788	
<b>Total Investment</b>	<b>81,926,855</b>	<b>117,114,092</b>	<b>52,874,788</b>	
% Good	89.031%	96.250%	N/A	
<b>Subtotal</b>	<b>72,940,298</b>	<b>112,722,314</b>	<b>N/A</b>	
<b>Retirements</b>				
WO-2018-0373	(3,802,317)	0	0	
WO-2019-0184	(1,387,596)	(1,921,839)	0	
WO-2019-0389	0	(8,983,004)	0	
WO-2020-0190	0	(2,219,408)	(10,096,408)	
<b>Total Retirements</b>	<b>(5,189,913)</b>	<b>(13,124,251)</b>	<b>(10,096,408)</b>	
% Good	20.000%	20.000%	N/A	
<b>Subtotal</b>	<b>(1,037,983)</b>	<b>(2,624,850)</b>	<b>N/A</b>	
<b>Net Plant to be Assessed</b>	<b>71,902,316</b>	<b>110,097,464</b>	<b>N/A</b>	
Assessment Rate	32.000%	32.000%	32.000%	
<b>Assessed Value</b>	<b>23,008,741</b>	<b>35,231,188</b>	<b>N/A</b>	
Tax Rate	11.140%	11.140%	11.140%	
<b>Tax Due on ISRS Investment</b>	<b>2,563,174</b>	<b>3,924,754</b>	<b>N/A</b>	
Due within 12 months from filing?	Yes	Yes	No	
<b>Property Tax Expense to Include in ISRS (Due within 12 Months)</b>				<b>6,487,928</b>
Property Tax Allowed in Prior ISRS				2,739,145
<b>Net Incremental Property Tax Included in This ISRS</b>				<b>3,748,783</b>

**20 Year MACRS Table**

Year	MACRS	% Good
1	3.750%	96.250%
2	7.219%	89.031%
3	6.677%	82.354%
4	6.177%	76.177%
5	5.713%	70.464%
6	5.285%	65.179%
7	4.888%	60.291%
8	4.522%	55.769%
9	4.462%	51.307%
10	4.461%	46.846%
11	4.462%	42.384%
12	4.462%	37.922%
13	4.461%	33.461%
14	4.462%	28.999%
15	4.461%	24.538%
16	4.461%	20.077%
17	4.462%	20.000%
18	4.461%	20.000%
19	4.462%	20.000%
20	4.461%	20.000%
21	2.231%	20.000%

Notes: 1) MACRS % from IRS Publication 946, Table A-1  
 2) There is a 20% floor on the % Good

		Base Revenues WR-2017-0285	Share of Base Revenue	
1				
2	Rate A Customers	\$194,983,761	94.64%	
3	Rate B Customers	3,141,065	1.52%	
4	Rate J Customers	7,906,028	3.84%	
5				
6	<b>Total</b>	<b>\$206,030,853</b>	<b>100.00%</b>	
7				
		Plant Additions	Share of Plant Additions	
8				
9	Mains Less Than or Equal to 12"	\$60,040,975	89.427%	
10	Hydrants	5,354,234	7.975%	
11	Subtotal - Small Mains and Hydrants	65,395,209	97.401%	
12				
13	Mains Greater than 12"	1,744,800	2.599%	
14				
15	<b>Total</b>	<b>\$67,140,009</b>	<b>100.000%</b>	
16				
		Share of Small Mains & Hydrants	Share of Large Mains	
17				
18	Rate A Customers	100.000%	94.638%	
19	Rate B Customers	0.000%	1.525%	
20	Rate J Customers	0.000%	3.837%	
21				
22	<b>Total</b>	<b>100.000%</b>	<b>100.000%</b>	
23				
		Share of ISRS Revenues	Base Revenues WR-2017-0285	Percent Increase
24				
25	Rate A Customers	9,712,135	194,983,761	4.981%
26	Rate B Customers	3,853	3,141,065	0.123%
27	Rate J Customers	9,699	7,906,028	0.123%
28				
29	<b>Total</b>	<b>9,725,687</b>	<b>206,030,853</b>	<b>4.721%</b>

	Oct-19 - Mar-20	Apr-20 - May-20	Total
<b>Mains, Valves and Hydrant Replacements</b>			
Reimbursements	(\$4,731)	\$0	(\$4,731)
Amortization	\$33	\$0	\$33
<b>Net CIAC</b>	<b>(\$4,698)</b>	<b>\$0</b>	<b>(\$4,698)</b>

	Oct-19 - Mar-20	Apr-20 - May-20	Total
<b>Relocations</b>			
Reimbursements	(\$236,732)	\$0	(\$236,732)
Amortization	\$1,089	\$0	\$1,089
<b>Net CIAC</b>	<b>(\$235,642)</b>	<b>\$0</b>	<b>(\$235,642)</b>



	Replacements	Relocations	Total
1			
2	\$931,664	\$26,210	\$957,874
3			
4	(66)	(3,291)	(3,356)
5			
6			(177,386)
7			
8			<b>\$777,132</b>

## MAWC ISRS Private Letter Ruling Summary Worksheet

	ISRS 17	ISRS 18	ISRS 19
Commission Ordered ISRS	6,377,959	8,878,845	6,112,222
Modified Revenue Requirement	6,385,800	8,886,775	6,116,773
Required Adjustment	7,841	7,930	4,551
Effective Date	12/15/18	06/15/19	12/21/19
End Date	12/21/20	12/21/20	12/21/20
Days in Effect	738	556	367
<b>Total</b>	<b>15,854</b>	<b>12,080</b>	<b>4,576</b>
<b>Subtotal</b>			<b>32,509</b>
Carrying Costs			2,819
<b>Grand Total</b>			<b>35,328</b>

Missouri-American Water Company  
ISRS #17 Revenue Requirements Calculation  
St. Louis County Operations

1	<b>Infrastructure System Replacement Surcharge Revenue Requirement</b>	
2		
3	<b>Water Utility Plant Projects--Replacement Mains, and Associated Valves and Hydrants (RM) RSMo 393.1000 (8a):</b>	
4	<u>Task Orders Placed in Service (TOPS):</u>	
5	STLC-Replacement Mains and Associated Valves and Hydrants	\$62,895,855
6	Net Contributions in Aid of Construction	(2,318)
7	Deferred Taxes	(8,808,257)
8	Accumulated Depreciation	(425,978)
9		
10	<b>Total Net 393.1000 (8a)</b>	<b>\$53,659,303</b>
11		
12	<b>Water Utility Plant Projects--Main Cleanings and Relinings (RM) RSMo 393.1000 (8b):</b>	
13	<u>Task Orders Placed in Service (TOPS):</u>	
14	STLC-Main Cleanings and Relinings	\$0
15	Net Contributions in Aid of Construction	0
16	Deferred Taxes	0
17	Accumulated Depreciation	0
18		
19	<b>Total Net 393.1000 (8b)</b>	<b>\$0</b>
20		
21	<b>Water Utility Plant Projects--Facilities Relocations (FR) RSMo 393.1000 (8c):</b>	
22	<u>Task Orders Placed in Service (TOPS):</u>	
23	STLC-Relocated Facilities	\$1,263,074
24	Net Contributions in Aid of Construction	(1,052,050)
25	Deferred Taxes	(29,114)
26	Accumulated Depreciation	(6,622)
27		
28	<b>Total Net 393.1000 (8c)</b>	<b>\$175,288</b>
29		
30	<b>Accumulated Depreciation and Deferred Taxes on Investment in Current ISRS</b>	
31	Accumulated Depreciation - Prior ISRS	\$0
32	Deferred Taxes - Prior ISRS	0
33		
34	<b>Total</b>	<b>\$0</b>
35		
36	<b>Total ISRS Rate Base</b>	<b>\$53,834,591</b>
37		
38	Overall Pre-Tax Rate Of Return per Last Order	9.44%
39		
40	Revenue Requirement on Capital	\$5,081,985
41	Depreciation Expense	826,505
42	Property Taxes ISRS 17	0
43	Revenue Cap Adjustment	0
44		
45	<b>Total Revenue Requirement</b>	<b>\$5,908,490</b>
46		
47	<b>Adjustments:</b>	
48	Undercollection from ISRS reconciliation	477,310
49		
50	<b>Adjusted Total Revenue Requirement</b>	<b>\$6,385,800</b>
51		
52	<b>Allocation of Revenue by Class</b>	
53	Rate A	\$6,375,839
54	Rate B	2,832
55	Rate J	7,129
56		
57	<b>Grand Total Revenues Collected in Proposed ISRS</b>	<b>\$6,385,800</b>

Missouri-American Water Company  
ISRS #17  
Deferred Taxes

1	<b>Book/Tax Depreciation Temporary Difference</b>						
2		<b>Replacements</b>		<b>Relocations</b>		<b>Total All Property</b>	
3		<b>2018</b>	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>	<b>2019</b>
4							
5	<b>Plant Additions</b>						
6	Plant Additions	62,895,855	-	1,263,074	-	64,158,929	-
7	Contributions	(2,337)	-	(1,059,928)	-	(1,062,265)	-
8	<b>Net Plant Additions</b>	<b>62,893,518</b>	<b>-</b>	<b>203,146</b>	<b>-</b>	<b>63,096,664</b>	<b>-</b>
9							
10	<b>Total Tax Depreciation Items</b>						
11							
12	<b>Repairs Deduction</b>						
13	Net Plant Additions	62,893,518	-	203,146	-	63,096,664	-
14	Repairs %	55.4%		55.4%			
15	<b>Total Repairs Deduction</b>	<b>34,849,591</b>	<b>-</b>	<b>112,564</b>	<b>-</b>	<b>34,962,156</b>	<b>-</b>
16							
17	<b>Bonus Depreciation</b>						
18	Net Plant Additions After Repairs	28,043,927	-	90,582	-	28,134,509	-
19	Bonus Depreciation %	0.0%		0.0%	0.0%		
20	<b>Total Bonus Depreciation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
21							
22	<b>Regular Depreciation</b>						
23	Net Plant Additions After Repairs and Bonus	28,043,927	-	90,582	-	28,134,509	-
24	Year 1 Depreciation Rate	2.0%	2.0%	2.0%	2.0%		
25	Months Included	11.0		11.0			
26	<b>Total Regular Depreciation</b>	<b>514,139</b>	<b>-</b>	<b>1,661</b>	<b>-</b>	<b>515,799</b>	<b>-</b>
27							
28	<b>Total Tax Deductions</b>	<b>35,363,730</b>	<b>-</b>	<b>114,225</b>	<b>-</b>	<b>35,477,955</b>	<b>-</b>
29							
30	<b>Total Book Depreciation Items</b>						
31							
32	<b>Net Book Depreciation</b>						
33	Book Depreciation	425,978	-	6,622	-	432,599	-
34	Book Amortization	(19)	-	(7,878)	-	(7,897)	-
35	<b>Total Net Book Depreciation</b>	<b>425,959</b>	<b>-</b>	<b>(1,257)</b>	<b>-</b>	<b>424,702</b>	<b>-</b>
36							
37	<b>Book/Tax Depreciation Temporary Difference</b>	<b>(34,937,771)</b>	<b>-</b>	<b>(115,481)</b>	<b>-</b>	<b>(35,053,253)</b>	<b>-</b>
38							
39	Total per Type of Property		(34,937,771)		(115,481)		(35,053,253)
40	% per Type of Property		99.671%		0.329%		100.000%
41							
42	<b>Net Operating Loss</b>						
43							
44		<b>2018</b>	<b>2019</b>				
45							
46	Net Plant Additions	63,096,664	0				
47							
48	Repairs Tax Basis	34,962,156	0				
49	Method Life Basis	28,134,509	0				
50							
51	Book Depreciation Allocated to Repairs	235,329	0				
52	Book Depreciation Allocated to Method Life	189,373	0				
53	<b>Total Book Depreciation</b>	<b>424,702</b>	<b>0</b>				
54							
55	<b>Repairs Related NOL</b>						
56	Repairs Book Depreciation	235,329	0				
57	Repairs Tax Deduction	34,962,156	0				
58	<b>NOL Related to Repairs</b>	<b>(34,726,826)</b>	<b>0</b>				
59							
60	<b>Method Life Related NOL</b>						
61	Method Life Book Depreciation	189,373	0				
62	Accelerated Tax Depreciation	515,799	0				
63	<b>NOL Related to Method Life</b>	<b>(326,427)</b>	<b>0</b>				
64							
65	<b>Total NOL for ISRS Purposes</b>			<b>Include?</b>			
66	Repairs Related			No	0	0	
67	Method Life Related			Yes	(326,427)	0	

Missouri-American Water Company  
ISRS #18 Revenue Requirements Calculation  
St. Louis County Operations

1	<b>Infrastructure System Replacement Surcharge Revenue Requirement</b>	
2		
3	<b>Water Utility Plant Projects--Replacement Mains, and Associated Valves and Hydrants (RM) RSMo 393.1000 (8a):</b>	
4	<u>Task Orders Placed in Service (TOPS):</u>	
5	STLC-Replacement Mains and Associated Valves and Hydrants	\$65,156,806
6	Net Contributions in Aid of Construction	(10,928)
7	Deferred Taxes	(9,139,280)
8	Accumulated Depreciation	(309,021)
9		
10	<b>Total Net 393.1000 (8a)</b>	<b>\$55,697,578</b>
11		
12	<b>Water Utility Plant Projects--Main Cleanings and Relinings (RM) RSMo 393.1000 (8b):</b>	
13	<u>Task Orders Placed in Service (TOPS):</u>	
14	STLC-Main Cleanings and Relinings	\$0
15	Net Contributions in Aid of Construction	0
16	Deferred Taxes	0
17	Accumulated Depreciation	0
18		
19	<b>Total Net 393.1000 (8b)</b>	<b>\$0</b>
20		
21	<b>Water Utility Plant Projects--Facilities Relocations (FR) RSMo 393.1000 (8c):</b>	
22	<u>Task Orders Placed in Service (TOPS):</u>	
23	STLC-Relocated Facilities	\$1,010,834
24	Net Contributions in Aid of Construction	(298,250)
25	Deferred Taxes	(67,483)
26	Accumulated Depreciation	(7,484)
27		
28	<b>Total Net 393.1000 (8c)</b>	<b>\$637,617</b>
29		
30	<b>Accumulated Depreciation and Deferred Taxes on Investment in Current ISRS</b>	
31	Accumulated Depreciation - Prior ISRS	(\$441,997)
32	Deferred Taxes - Prior ISRS	(18,781)
33		
34	<b>Total</b>	<b>(\$460,778)</b>
35		
36	<b>Total ISRS Rate Base</b>	<b>\$55,874,417</b>
37		
38	Overall Pre-Tax Rate Of Return per Last Order	9.44%
39		
40	Revenue Requirement on Capital	\$5,274,545
41	Depreciation Expense	873,085
42	Property Taxes	2,739,145
43	Revenue Cap Adjustment	0
44		
45	<b>Total Revenue Requirement</b>	<b>\$8,886,775</b>
46		
47	<b>Adjustments:</b>	
48	Undercollection from ISRS reconciliation	-
49		
50	<b>Adjusted Total Revenue Requirement</b>	<b>\$8,886,775</b>
51		
52	<b>Allocation of Revenue by Class</b>	
53	Rate A	\$8,848,749
54	Rate B	10,812
55	Rate J	27,214
56		
57	<b>Grand Total Revenues Collected in Proposed ISRS</b>	<b>\$8,886,775</b>

Missouri-American Water Company  
ISRS #18  
Deferred Taxes

Book/Tax Depreciation Temporary Difference						
	Replacements		Relocations		Total All Property	
	2018	2019	2018	2019	2018	2019
<b>Plant Additions</b>						
Plant Additions	17,018,563	48,138,244	749,363	261,471	17,767,926	48,399,714
<b>Net Plant Additions</b>	<b>17,018,563</b>	<b>48,138,244</b>	<b>749,363</b>	<b>261,471</b>	<b>17,767,926</b>	<b>48,399,714</b>
<b>Total Tax Items</b>						
<b>Repairs Deduction</b>						
Net Plant Additions	17,018,563	48,138,244	749,363	261,471	17,767,926	48,399,714
Repairs %	55.4%	55.4%	55.4%	55.4%		
<b>Total Repairs Deduction</b>	<b>9,430,065</b>	<b>26,673,625</b>	<b>415,226</b>	<b>144,882</b>	<b>9,845,291</b>	<b>26,818,507</b>
<b>Bonus Depreciation</b>						
Net Plant Additions After Repairs	7,588,498	21,464,619	334,138	116,588	7,922,636	21,581,207
Bonus Depreciation %	0.0%	0.0%	0.0%	0.0%		
<b>Total Bonus Depreciation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Regular Depreciation</b>						
Net Plant Additions After Repairs and Bonus	7,588,498	21,464,619	334,138	116,588	7,922,636	21,581,207
Year 1 Depreciation Rate	2.0%	2.0%	2.0%	2.0%		
Months Included	12.0	5.0	12.0	5.0		
Year 2 Depreciation Rate	4.0%	4.0%	4.0%	4.0%		
Months Included	5.0		5.0			
<b>Total Regular Depreciation</b>	<b>278,245</b>	<b>178,872</b>	<b>12,252</b>	<b>972</b>	<b>290,497</b>	<b>179,843</b>
Taxable Income - Contributions	(11,011)	-	(153,828)	(146,300)	(164,839)	(146,300)
<b>Total Tax Deductions</b>	<b>9,697,299</b>	<b>26,852,497</b>	<b>273,650</b>	<b>(447)</b>	<b>9,970,949</b>	<b>26,852,050</b>
<b>Total Book Items</b>						
<b>Net Book Depreciation</b>						
Book Depreciation	121,248	187,773	5,967	1,516	127,215	189,289
Book Amortization	(83)	-	(1,173)	(705)	(1,257)	(705)
<b>Total Net Book Depreciation</b>	<b>121,165</b>	<b>187,773</b>	<b>4,794</b>	<b>812</b>	<b>125,958</b>	<b>188,585</b>
<b>Book/Tax Depreciation Temporary Difference</b>	<b>(9,576,134)</b>	<b>(26,664,724)</b>	<b>(268,856)</b>	<b>1,258</b>	<b>(9,844,990)</b>	<b>(26,663,465)</b>
<b>Net Operating Loss</b>						
					<b>2018</b>	<b>2019</b>
Net Plant Additions					17,767,926	48,399,714
Repairs Tax Basis					9,845,291	26,818,507
Method Life Basis					7,922,636	21,581,207
Book Depreciation Allocated to Repairs					69,794	104,496
Book Depreciation Allocated to Method Life					56,164	84,089
<b>Total Book Depreciation</b>					<b>125,958</b>	<b>188,585</b>
<b>Repairs Related NOL</b>						
Repairs Book Depreciation					69,794	104,496
Repairs Tax Deduction					9,845,291	26,818,507
<b>NOL Related to Repairs</b>					<b>(9,775,497)</b>	<b>(26,714,011)</b>
<b>Method Life Related NOL</b>						
Method Life Book Depreciation					56,164	84,089
Accelerated Tax Depreciation					290,497	179,843
<b>NOL Related to Method Life</b>					<b>(234,332)</b>	<b>(95,754)</b>
<b>Total NOL for ISRS Purposes</b>						
Repairs Related					0	0
Method Life Related					(234,332)	(95,754)
<b>Total Net Operating Loss</b>					<b>(\$234,332)</b>	<b>(\$95,754)</b>
<b>Net Deferred Income Taxes</b>						

Missouri-American Water Company  
ISRS #19 Revenue Requirements Calculation  
St. Louis County Operations

1	<b>Infrastructure System Replacement Surcharge Revenue Requirement</b>	
2		
3	<b>Water Utility Plant Projects--Replacement Mains, and Associated Valves and Hydrants (RM) RSMo 393.1000 (8a):</b>	
4	<u>Task Orders Placed in Service (TOPS):</u>	
5	STLC-Replacement Mains and Associated Valves and Hydrants	\$54,279,919
6	Net Contributions in Aid of Construction	(1,019)
7	Deferred Taxes	(7,610,714)
8	Accumulated Depreciation	(301,535)
9		
10	<b>Total Net 393.1000 (8a)</b>	<b>\$46,366,651</b>
11		
12	<b>Water Utility Plant Projects--Main Cleanings and Relinings (RM) RSMo 393.1000 (8b):</b>	
13	<u>Task Orders Placed in Service (TOPS):</u>	
14	STLC-Main Cleanings and Relinings	\$0
15	Net Contributions in Aid of Construction	0
16	Deferred Taxes	0
17	Accumulated Depreciation	0
18		
19	<b>Total Net 393.1000 (8b)</b>	<b>\$0</b>
20		
21	<b>Water Utility Plant Projects--Facilities Relocations (FR) RSMo 393.1000 (8c):</b>	
22	<u>Task Orders Placed in Service (TOPS):</u>	
23	STLC-Relocated Facilities	\$169,239
24	Net Contributions in Aid of Construction	(227,477)
25	Deferred Taxes	33,715
26	Accumulated Depreciation	(631)
27		
28	<b>Total Net 393.1000 (8c)</b>	<b>(\$25,155)</b>
29		
30	<b>Accumulated Depreciation and Deferred Taxes on Investment in Current ISRS</b>	
31	Accumulated Depreciation - Prior ISRS	(\$904,111)
32	Deferred Taxes - Prior ISRS	(7,147)
33		
34	<b>Total</b>	<b>(\$911,258)</b>
35		
36	<b>Total ISRS Rate Base</b>	<b>\$45,430,238</b>
37		
38	Overall Pre-Tax Rate Of Return per Last Order	9.44%
39		
40	Revenue Requirement on Capital	\$4,288,614
41	Depreciation Expense	631,030
42	Property Taxes	(0)
43	Revenue Cap Adjustment	0
44		
45	<b>Total Revenue Requirement</b>	<b>\$4,919,644</b>
46		
47	<b>Adjustments:</b>	
48	Undercollection from ISRS reconciliation	1,197,129
49		
50	<b>Adjusted Total Revenue Requirement</b>	<b>\$6,116,773</b>
51		
52	<b>Allocation of Revenue by Class</b>	
53	Rate A	\$6,095,666
54	Rate B	6,002
55	Rate J	15,106
56		
57	<b>Grand Total Revenues Collected in Proposed ISRS</b>	<b>\$6,116,773</b>

Missouri-American Water Company  
ISRS #19  
Deferred Taxes

Book/Tax Depreciation Temporary Difference						
	Replacements		Relocations		Total All Property	
	2019	2020	2019	2020	2019	2020
<b>Plant Additions</b>						
Plant Additions	54,279,919	-	169,239	-	54,449,158	-
<b>Net Plant Additions</b>	<b>54,279,919</b>	<b>-</b>	<b>169,239</b>	<b>-</b>	<b>54,449,158</b>	<b>-</b>
<b>Total Tax Items</b>						
<b>Repairs Deduction</b>						
Net Plant Additions	54,279,919	-	169,239	-	54,449,158	-
Repairs %	55.4%	55.4%	55.4%	55.4%		
<b>Total Repairs Deduction</b>	<b>30,076,756</b>	<b>-</b>	<b>93,776</b>	<b>-</b>	<b>30,170,532</b>	<b>-</b>
<b>Bonus Depreciation</b>						
Net Plant Additions After Repairs	24,203,163	-	75,463	-	24,278,626	-
Bonus Depreciation %	0.0%	0.0%	0.0%	0.0%		
<b>Total Bonus Depreciation</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Regular Depreciation</b>						
Net Plant Additions After Repairs and Bonus	24,203,163	-	75,463	-	24,278,626	-
Year 1 Depreciation Rate	2.0%	2.0%	2.0%	2.0%		
Months Included	8.0	0.0	8.0	0.0		
Year 2 Depreciation Rate	4.0%	4.0%	4.0%	4.0%		
Months Included	0.0		0.0			
<b>Total Regular Depreciation</b>	<b>322,709</b>	<b>-</b>	<b>1,006</b>	<b>-</b>	<b>323,715</b>	<b>-</b>
Taxable Income - Contributions	(1,023)	-	(228,509)	-	(229,532)	-
<b>Total Tax Deductions</b>	<b>30,398,442</b>	<b>-</b>	<b>(133,726)</b>	<b>-</b>	<b>30,264,716</b>	<b>-</b>
<b>Total Book Items</b>						
<b>Net Book Depreciation</b>						
Book Depreciation	301,535	-	631	-	302,166	-
Book Amortization	(4)	-	(1,031)	-	(1,035)	-
<b>Total Net Book Depreciation</b>	<b>301,531</b>	<b>-</b>	<b>(400)</b>	<b>-</b>	<b>301,131</b>	<b>-</b>
<b>Book/Tax Depreciation Temporary Difference</b>	<b>(30,096,910)</b>	<b>-</b>	<b>133,326</b>	<b>-</b>	<b>(29,963,584)</b>	<b>-</b>
<b>Net Operating Loss</b>						
					<b>2019</b>	<b>2020</b>
Net Plant Additions					54,449,158	-
Repairs Tax Basis					30,170,532	0
Method Life Basis					24,278,626	0
Book Depreciation Allocated to Repairs					166,858	0
Book Depreciation Allocated to Method Life					134,273	0
<b>Total Book Depreciation</b>					<b>301,131</b>	<b>0</b>
<b>Repairs Related NOL</b>						
Repairs Book Depreciation					166,858	0
Repairs Tax Deduction					30,170,532	0
<b>NOL Related to Repairs</b>					<b>(30,003,674)</b>	<b>0</b>
<b>Method Life Related NOL</b>						
Method Life Book Depreciation					134,273	0
Accelerated Tax Depreciation					323,715	0
<b>NOL Related to Method Life</b>					<b>(189,442)</b>	<b>0</b>
<b>Total NOL for ISRS Purposes</b>						
Repairs Related					0	0
Method Life Related					(189,442)	0
<b>Taxable Income</b>					<b>(\$189,442)</b>	<b>\$0</b>