

**Exhibit No.:**

**Issue(s):**

\_\_\_\_\_  
Class Cost of Service/  
Cost Allocations

**Witness/Type of Exhibit:** Meisenheimer/Surrebuttal

**Sponsoring Party:**

Public Counsel

**Case No.:**

WR-2008-0311

**SURREBUTTAL TESTIMONY**

**OF**

**BARBARA A. MEISENHEIMER**

Submitted on Behalf of the Office of the Public Counsel

**Missouri-American Water Company**

**Case No. WR-2008-0311**

October 16, 2008

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

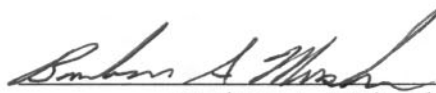
In the Matter of Missouri-American                     )  
Water Company's request for authority                 )  
to implement a general rate increase                 )       **WR-2008-0311**  
for water and sewer service provided                 )  
in Missouri Service Areas                                 )

**AFFIDAVIT OF BARBARA A. MEISENHEIMER**

STATE OF MISSOURI         )  
                                       )                     ss  
COUNTY OF COLE         )

Barbara A. Meisenheimer, of lawful age and being first duly sworn, deposes and states:

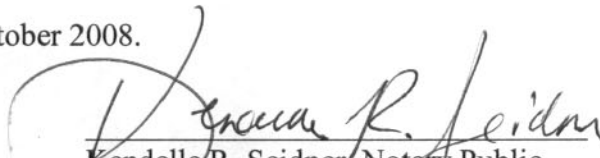
1. My name is Barbara A. Meisenheimer. I am the Chief Utility Economist for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

  
Barbara A. Meisenheimer

Subscribed and sworn to me this 16th day of October 2008.



KENDELLE R. SEIDNER  
My Commission Expires  
February 4, 2011  
Cole County  
Commission #07004782

  
Kendelle R. Seidner, Notary Public

My commission expires February 4, 2011.

**SURREBUTTAL TESTIMONY  
OF  
BARBARA A. MEISENHEIMER**

**MISSOURI-AMERICAN WATER COMPANY**

**CASE NO. WR-2008-0311**

1       **Q.     PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.**

2       A.     Barbara Meisenheimer, Chief Economist, Office of the Public Counsel, P. O. Box  
3             2230, Jefferson City, Missouri 65102.

4       **Q.     HAVE YOU TESTIFIED PREVIOUSLY IN THIS CASE?**

5       A.     Yes, I submitted direct testimony on the issues of district rate design for the  
6             Missouri American Water Company (MAWC or the Company) on September 5,  
7             2008 and rebuttal testimony on the issues of rate design and revenue requirement  
8             on September 30, 2008.

9       **Q.     WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

10      A.     The purpose of my surrebuttal testimony is to make a correction to my Class Cost  
11             of Service (CCOS) studies and to respond to the rebuttal testimony of Company  
12             witness Paul Herbert and Donald Johnstone testifying on behalf of AG  
13             Processing, Inc., the City of Riverside and the Missouri Gaming Commission.

1  
2 **Q. PLEASE EXPLAIN THE CORRECTION YOU HAVE MADE TO THE CLASS COST OF**  
3 **SERVICE STUDIES FILED IN YOUR DIRECT TESTIMONY.**

4 A. In response to an inquiry by Donald Johnstone, I reviewed my studies and found  
5 that the results of my CCOS studies filed in Table 1 and Schedules BAM REB 1-  
6 1 through BAM REB 1-9 of rebuttal testimony incorrectly stated the class cost by  
7 district. I have corrected the error. The correction did not affect either my  
8 primary rate design recommendations or the alternative recommendation for  
9 revenue neutral shifts presented in Table 2 of my rebuttal testimony.

10 **Q. PLEASE REVIEW YOUR COST OF SERVICE FINDINGS.**

11 A. My revised CCOS study results for individual districts are provided in Schedule  
12 BAM SUR 1-1 through Schedule BAM SUR 1-9. A summary comparing current  
13 cost percentage and revenue percentage by class and by district is provided in  
14 Table 1.

Table 1 - Percentage of Current Cost at Equalized Return and Percentage of Current Rate Revenue by Customer Class							
	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE
Jefferson City	Cost %	53.98%	30.16%	5.75%	8.53%		1.58%
	Revenue %	54.55%	29.59%	4.94%	8.13%		2.79%
Brunswick	Cost %	53.91%	13.93%	0.67%	2.08%	28.30%	1.11%
	Revenue %	51.72%	13.75%	0.97%	2.33%	28.66%	2.57%
Joplin	Cost %	49.46%	24.79%	12.94%	3.95%	2.26%	6.59%
	Revenue %	52.36%	21.55%	16.33%	3.56%	3.21%	2.99%
Mexico	Cost %	48.57%	13.77%	13.84%	8.80%	11.87%	3.15%
	Revenue %	46.70%	13.70%	16.47%	8.91%	10.76%	3.46%
Parkville	Cost %	70.24%	18.87%	0.39%	1.19%	6.47%	2.84%
	Revenue %	71.32%	19.56%	0.57%	1.20%	4.70%	2.65%
St. Charles	Cost %	80.05%	12.33%	0.01%	4.53%		3.08%
	Revenue %	84.59%	11.17%	0.02%	2.62%		1.59%
St. Joseph	Cost %	44.27%	16.67%	23.42%	3.46%	10.16%	2.02%
	Revenue %	47.70%	18.22%	20.60%	3.35%	9.07%	1.05%
Warrensburg	Cost %	58.27%	16.07%	1.95%	11.41%	8.31%	4.00%
	Revenue %	55.04%	20.26%	2.28%	12.36%	7.42%	2.63%
		RES COM OPA Rate A & K	INDUSTRIAL Rate J	OTHER WATER UTILITIES Rate B, G & H			PRIVATE FIRE Rate E & H
St Louis	Cost %	88.58%	4.47%	4.34%			2.62%
	Revenue %	90.25%	4.51%	4.17%			1.07%

Table 1 illustrates that Residential Class revenues are generally aligned with costs. This result, coupled with the inherent imprecision in allocating joint and common costs and limitations in the data used to develop class allocations that I address later in this testimony, lead me to conclude that there is no compelling reason to implement significant revenue neutral shifts in this case.

1       **Q.       PLEASE SUMMARIZE YOUR RATE DESIGN RECOMMENDATION.**

2       A.       My recommendations have not changed since rebuttal testimony. I recommended  
3               adjusting class revenues in each district, including the MSD rate, by an equal  
4               percent in order to generate district specific revenues with the caveat that the  
5               district specific increase for Brunswick and Warren County Water be phased-in  
6               over 3 years with the carrying cost to be paid by the district at a rate equal to the  
7               Company's Allowance for Funds Used During Construction (AFUDC) rate. I  
8               recommend the phase-ins collect 50% of the district deficiency in the first year,  
9               with the balance and carrying costs to be recovered in approximately equal  
10              amounts in years two and three. I also continue to recommend holding the  
11              residential and commercial customer charges at current levels.

12                      If, despite my recommendation, the Commission decides to implement  
13                      revenue neutral adjustments, with the exception of St. Louis, I would propose  
14                      adjusting the Commercial, Industrial, Other Public Authority and Sales for Resale  
15                      classes by an amount equal to half the amount needed to reach the class cost  
16                      presented in my CCOS studies. The sum of these adjustments would be offset by  
17                      the Residential Class. For St. Louis, I would recommend adjusting Rate Group J  
18                      and Rate Groups, B, G & H by an amount equal to half the amount needed to  
19                      reach the class cost presented in my CCOS studies. The sum of these adjustments  
20                      would be offset by Rate Group A&K. Even if these adjustments are made, I  
21                      recommend no change on a revenue neutral basis for the Fire Class in any district.  
22                      The revenue neutral shifts that would result from this alternative proposal are  
23                      shown in Table 2.

1

Table 2 - Alternative Proposal Revenue Neutral Shift by Customer Class							
	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE
Jefferson City	Shift %	-1.64%	0.97%	8.26%	2.45%		0.00%
Brunswick	Shift %	0.71%	0.67%	-15.66%	-5.40%	-0.63%	0.00%
Joplin	Shift %	0.67%	7.53%	-10.36%	5.57%	-14.87%	0.00%
Mexico	Shift %	1.67%	0.27%	-7.99%	-0.63%	5.17%	0.00%
Parkville	Shift %	-0.63%	-1.74%	-15.45%	-0.33%	18.76%	0.00%
St. Charles	Shift %	-1.81%	5.18%	-16.41%	36.29%		0.00%
St. Joseph	Shift %	-2.59%	-4.27%	6.85%	1.65%	6.01%	0.00%
Warrensburg	Shift %	4.17%	-10.35%	-7.38%	-3.84%	6.00%	0.00%
		RES COM OPA Rate A & K	INDUSTRIAL Rate J	SALE FOR RESALE Rate B, G & H			PRIVATE FIRE Rate E & H
St Louis	Shift %	-0.07%	-0.40%	1.96%			0.00%

2

3

4

5

6

Finally, I indicated that Public Counsel is not opposed to merging the St. Louis and St. Charles County districts since they are physically and operationally connected.

1       **Q.     IN REBUTTAL TESTIMONY, DONALD JOHNSTONE ARGUES THAT**  
2       **DISPROPORTIONAL CHANGES TO THE VOLUMETRIC BLOCK RATES FOR THE ST.**  
3       **JOSEPH AND PARKVILLE DISTRICTS ARE INAPPROPRIATE BECAUSE THERE ARE**  
4       **NO USAGE CHARACTERISTICS AVAILABLE FOR THE STATE OF MISSOURI AS A**  
5       **WHOLE OR FOR THE ST. JOSEPH AND PARKVILLE DISTRICTS. DO YOU SHARE HIS**  
6       **CONCERNS WITH THE DATA RELATED TO CUSTOMER CHARACTERISTICS THAT**  
7       **UNDERLY THE PARTIES CLASS COST OF SERVICE STUDIES?**

8       A.    Yes, I agree that the data is insufficient to support significant changes to the  
9       volumetric rate design. I also support Mr. Johnstone's recommendation that,  
10      provided it can be completed cost effectively, the Company should be required to  
11      collect and submit district specific data on customer demand characteristics in  
12      order to ensure that the customer classes used in CCOS studies include customers  
13      that have homogeneous usage patterns. I would like to point out that the data  
14      used to calculate the customer charge in the cost studies does not rely on the  
15      customer demand data referenced above.

16      **Q.     DO YOU AGREE WITH DONALD JOHNSTONE'S PROPOSAL TO INCREASE CUSTOMER**  
17      **CHARGES IN THE ST. JOSEPH DISTRICT TO THE LEVELS PROPOSED BY MAWC?**

18      A.    No. As I discussed in my rebuttal testimony, my CCOS studies do not support an  
19      increase in the customer charge for residential or small commercial customers. It  
20      is interesting to note that while Mr. Johnstone supports the Company's customer  
21      charge for the St. Joseph district in his testimony on behalf of AG Processing he  
22      appears to oppose the same recommendation for the Parkville district in his  
23      testimony on behalf of the City of Riverside and the Missouri Gaming  
24      Commission.



1       **Q.     PLEASE COMMENT ON MR HERBERT’S CONCERNS REGARDING THE STAFF’S AND**  
2       **PUBLIC COUNSEL’S USE OF NON-COINCIDENT PEAKS INSTEAD OF COINCIDENT**  
3       **PEAKS IN DEVELOPING PEAK HOUR FACTORS.**

4       A.     The American Water Works Association’s M1 manual Appendix A recognizes  
5       that an analyst may use either non-coincident or coincident demands in  
6       developing max-hour capacity factors. Mr. Herbert points out that use of non-  
7       coincident demands results in a greater allocation of costs to the Residential class  
8       relative to other classes. In this respect, Staff’s and Public Counsel’s use of non-  
9       coincident peaks result in a more conservative results from the perspective of the  
10      Residential class.

11      **Q.     DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

12      A.     Yes.

Office of the Public Counsel  
MAMC Class Cost of Service Summary

**Brunswick District**

**CLASS COST OF SERVICE SUMMARY:**

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	436,779	182,091	47,254		2,301	7,297	113,329	78,572
2 Depreciation Expenses TOIT Def Tax Exp	89,975	40,540	10,261		479	1,521	21,046	14,651
3 Current Income Taxes	57,043	24,930	6,244		285	918	12,461	11,179
4 TOTAL Expenses and Taxes	583,797	247,561	63,759		3,065	9,736	146,836	104,402
5 Spread of fire expenses & taxes to others	104,402	81,828	19,505		761	2,307	0	(104,402)
6 TOTAL Expenses and Taxes after Spread	583,797	329,389	83,265		3,826	12,042	146,836	8,439
7								
8								
9 Current Revenue								
10 Rate Revenue	295,760	152,925	40,679		2,888	6,916	84,740	7,612
11 Other Revenue	3,515	1,851	472		22	71	1,031	69
12 Spread of fire revenue to others	0	0	0		0	0	0	0
13 TOTAL Current Revenues	299,275	154,776	41,151		2,910	6,987	85,771	7,681
14 Current Revenue Percentage	100.00%	51.72%	13.75%		0.97%	2.33%	28.66%	0.00%
15								
16 Net OPERATING INCOME	(284,522)	(174,614)	(42,114)		(916)	(5,055)	(61,065)	(758)
17 TOTAL Rate Base	(57,043)							
18	1,569,529	685,948	171,812		7,838	25,254	342,859	307,589
19 Spread of fire rate base to others								
20 TOTAL Rate Base after Spread	1,569,529	927,032	229,279		10,081	32,050	342,859	28,227
21								
22								
23 Implicit Rate of Return (ROR)	-18.13%	-18.84%	-18.37%		-9.08%	-15.77%	-17.81%	-2.69%
24								
25 Net Operating Income with Equalized ROR	(284,522)	(168,051)	(41,563)		(1,828)	(5,810)	(62,153)	(5,117)
26								
27 Class COS with Equalized ROR	299,275	161,338	41,701		1,999	6,232	84,682	3,322
28 Current Class COS Percentage	100.00%	53.91%	13.93%		0.67%	2.08%	28.30%	1.11%
29								
30 Net Operating Income with Equalized ROR	(284,522)	(168,051)	(41,563)		(1,828)	(5,810)	(62,153)	(5,117)
31 Revenue Neutral Shift to Equalize Class ROR	(0)	6,563	551		(912)	(755)	(1,088)	(4,359)
32 Revenue Increase/Decrease % of Current Revenue	0.00%	4.24%	1.34%		-31.33%	-10.80%	-1.27%	-56.75%
33								
34 Staff Midpoint ROR	7.823%	7.823%	7.823%		7.823%	7.823%	7.823%	7.823%
35								
36 Net Operating Income with Recommended ROR	122,784	72,522	17,937		789	2,507	26,822	2,208
37 True-up plus add'l taxes	31,928	16,812	4,283		202	645	9,364	622
38 Class COS with Staff Recommended ROR	738,509	418,723	105,484		4,817	15,194	183,022	11,270
39 Potential Post True-up Class COS Percentage	100.00%	56.70%	14.28%		0.65%	2.06%	24.78%	1.53%
40								
41 Required revenue to reach post true-up Class COS	439,234	263,947	64,334		1,906	8,207	97,251	3,589

Office of the Public Counsel  
MAWC Class Cost of Service Summary

Jefferson City

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	3,286,377	1,721,432	943,265	196,935	243,866		35,518	145,361
2 Depreciation Expenses/TOT Def Tax Exp	872,720	382,582	235,832	45,078	64,536		18,035	126,657
3 Current Income Taxes	52,881	21,976	13,961	2,595	3,857		1,357	9,136
4 TOTAL Expenses and Taxes	4,211,978	2,125,990	1,193,058	244,607	312,259		54,910	281,154
5								
6 Spread of fire expenses & taxes to others	281,154	170,483	70,516	4,386	35,770		0	(281,154)
7 TOTAL Expenses and Taxes after Spread	4,211,978	2,296,473	1,263,574	248,993	348,028		54,910	
8								
9 Current Revenue								
10 Rate Revenue	5,351,600	2,919,103	1,583,279	263,551	435,411		150,256	0
11 Other Revenue	39,715	21,876	11,919	2,550	3,058		313	0
12 Spread of fire revenue to others	0	0	0	0	0		0	0
13 TOTAL Current Revenues	5,391,315	2,940,979	1,595,198	266,101	438,469		150,569	0
14 Current Revenue Percentage	100.00%	54.55%	29.59%	4.94%	8.13%		2.79%	0.00%
15								
16 Net OPERATING INCOME	1,179,337	644,506	331,624	17,108	90,441		95,659	0
17								
18 TOTAL Rate Base	13,086,819	5,438,616	3,454,969	642,137	954,522		335,715	2,260,860
19								
20 Spread of fire rate base to others	2,260,860	1,370,912	567,046	35,266	287,636		0	(2,260,860)
21 TOTAL Rate Base after Spread	13,086,819	6,809,528	4,022,015	677,403	1,242,158		335,715	
22								
23 Implicit Rate of Return (ROR)	9.01%	9.46%	8.25%	2.53%	7.28%		28.49%	
24								
25 Net Operating Income with Equalized ROR	1,179,337	613,650	362,450	61,045	111,939		30,253	
26								
27 Class COS with Equalized ROR	5,391,315	2,910,123	1,626,023	310,038	459,967		85,164	
28 Current Class COS Percentage	100.00%	53.98%	30.16%	5.75%	8.53%		1.58%	
29								
30 Net Operating Income with Equalized ROR	1,179,337	613,650	362,450	61,045	111,939		30,253	
31 Revenue Neutral Shift to Equalize Class ROR	0	(30,856)	30,825	43,937	21,498		(65,405)	
32 Revenue Increase/Decrease % of Current Revenue	0.00%	-1.05%	1.93%	16.51%	4.90%		-43.44%	
33								
34 Staff Midpoint ROR	7.823%	7.823%	7.823%	7.823%	7.823%		7.823%	
35								
36 Net Operating Income with Recommended ROR	1,023,782	532,709	314,642	52,993	97,174		26,253	
37 True-up plus add'l taxes	325,281	179,171	97,623	20,882	25,045		2,560	
38 Class COS with Staff Recommended ROR	5,561,041	3,008,553	1,675,839	322,867	470,248		83,733	
39 Potential Post True-up Class COS Percentage	100.00%	54.10%	30.14%	5.81%	8.46%		1.51%	
40								
41 Required revenue to reach post true-up Class COS	169,726	67,374	80,641	56,767	31,779		(66,835)	

Office of the Public Counsel  
MAMC Class Cost of Service Summary

Mexico

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	1,522,991	671,756	195,504	190,468	126,904	176,629	41,437	120,293
2 Depreciation Expenses/TOT Def Tax Exp	598,054	261,217	75,960	80,398	49,193	69,389	20,396	41,500
3 Current Income Taxes	(60,855)	(25,368)	(7,774)	(8,675)	(5,149)	(7,469)	(2,132)	(4,287)
4 TOTAL Expenses and Taxes	2,060,190	907,605	263,690	262,192	170,947	238,549	59,701	157,506
5								
6 Spread of fire expenses & taxes to others	157,506	117,228	20,976	10,141	9,161		0	(157,506)
7 TOTAL Expenses and Taxes after Spread	2,060,190	1,024,833	284,666	272,332	180,109	238,549	59,701	
8								
9 Current Revenue								
10 Rate Revenue	3,480,713	1,620,560	476,504	577,210	310,116	374,403	121,920	0
11 Other Revenue	53,083	29,660	7,677	4,923	4,713	5,735	374	0
12 Spread of fire revenue to others	0	0	0	0	0	0	0	0
13 TOTAL Current Revenues	3,533,796	1,650,220	484,181	582,133	314,829	380,138	122,294	0
14 Current Revenue Percentage	100.00%	46.70%	13.70%	16.47%	8.91%	10.76%	3.46%	0.00%
15								
16 Net OPERATING INCOME	1,473,606	625,387	199,514	309,801	134,721	141,589	62,593	0
17								
18 TOTAL Rate Base	11,907,314	4,963,736	1,521,194	1,697,403	1,007,575	1,461,404	417,257	838,746
19								
20 Spread of fire rate base to others	838,746	624,260	111,701	54,000	48,785	0	0	(838,746)
21 TOTAL Rate Base after Spread	11,907,314	5,587,995	1,632,894	1,751,403	1,056,361	1,461,404	417,257	
22								
23 Implicit Rate of Return (ROR)	12.38%	11.19%	12.22%	17.69%	12.75%	9.69%	15.00%	
24								
25 Net Operating Income with Equalized ROR	1,473,606	691,550	202,081	216,747	130,731	180,858	51,638	
26								
27 Class COS with Equalized ROR	3,533,796	1,716,383	486,747	489,079	310,840	419,407	111,339	
28 Current Class COS Percentage	100.00%	48.57%	13.77%	13.84%	8.80%	11.87%	3.15%	
29								
30 Net Operating Income with Equalized ROR	1,473,606	691,550	202,081	216,747	130,731	180,858	51,638	
31 Revenue Neutral Shift to Equalize Class ROR	(0)	66,163	2,567	(93,054)	(3,989)	39,269	(10,955)	
32 Revenue Increase/Decrease % of Current Revenue	0.00%	4.01%	0.53%	-15.98%	-1.27%	10.33%	-8.96%	
33								
34 Staff Midpoint ROR	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	
35								
36 Net Operating Income with Recommended ROR	931,509	437,149	127,741	137,012	82,639	114,326	32,642	
37 True-up plus add'l taxes	193,355	108,038	27,962	17,934	17,168	20,892	1,362	
38 Class COS with Staff Recommended ROR	3,185,054	1,570,020	440,369	427,278	279,915	373,766	93,705	
39 Potential Post True-up Class COS Percentage	100.00%	49.29%	13.83%	13.42%	8.79%	11.74%	2.94%	
40								
41 Required revenue to reach post true-up Class COS	(348,742)	(80,200)	(43,811)	(154,856)	(34,914)	(6,372)	(28,589)	

Office of the Public Counsel  
MAMC Class Cost of Service Summary

Parkville

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	1,362,347	897,876	239,990	5,775	13,008	94,012	22,997	88,688
2 Depreciation Expenses TOIT Def Tax Exp	1,185,973	709,417	187,205	3,778	11,036	72,967	39,355	162,216
3 Current Income Taxes	137,688	79,983	21,521	424	1,246	8,693	4,900	20,922
4 TOTAL Expenses and Taxes	2,686,008	1,687,276	448,715	9,976	25,291	175,673	67,252	271,826
5								
6 Spread of fire expenses & taxes to others	271,826	206,630	58,174	917	6,104		0	(271,826)
7 TOTAL Expenses and Taxes after Spread	2,686,008	1,893,906	506,889	10,893	31,395	175,673	67,252	
8								
9 Current Revenue								
10 Rate Revenue	3,878,080	2,766,088	758,762	21,985	46,658	181,325	103,236	26
11 Other Revenue	43,605	30,882	8,205	199	452	3,137	729	0
12 Spread of fire revenue to others	26	20	6	0	1	0	0	0
13 TOTAL Current Revenues	3,921,685	2,796,990	766,973	22,184	47,111	184,462	103,965	0
14 Current Revenue Percentage	100.00%	71.32%	19.56%	0.57%	1.20%	4.70%	2.65%	0.00%
15								
16 Net OPERATING INCOME	1,235,677	903,084	260,084	11,291	15,716	8,789	36,713	0
17								
18 TOTAL Rate Base	16,551,702	9,614,890	2,587,034	50,916	149,828	1,044,999	588,997	2,515,040
19								
20 Spread of fire rate base to others	2,515,040	1,911,827	538,251	8,483	56,479	0	0	(2,515,040)
21 TOTAL Rate Base after Spread	16,551,702	11,526,717	3,125,285	59,399	206,306	1,044,999	588,997	
22								
23 Implicit Rate of Return (ROR)	7.47%	7.83%	8.32%	19.01%	7.62%	0.84%	6.23%	
24								
25 Net Operating Income with Equalized ROR	1,235,677	860,534	233,320	4,434	15,402	78,015	43,972	
26								
27 Class COS with Equalized ROR	3,921,685	2,754,440	740,209	15,327	46,797	253,688	111,224	
28 Current Class COS Percentage	100.00%	70.24%	18.87%	0.39%	1.19%	6.47%	2.84%	
29								
30 Net Operating Income with Equalized ROR	1,235,677	860,534	233,320	4,434	15,402	78,015	43,972	
31 Revenue Neutral Shift to Equalize Class ROR	(0)	(42,550)	(26,764)	(6,857)	(314)	69,226	7,259	
32 Revenue Increase/Decrease % of Current Revenue	0.00%	-1.52%	-3.49%	-30.91%	-0.67%	37.53%	6.98%	
33								
34 Staff Midpoint ROR	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	
35								
36 Net Operating Income with Recommended ROR	1,294,840	901,735	244,491	4,647	16,139	81,750	46,077	
37 True-up plus add'l taxes	764,992	541,792	143,954	3,494	7,935	55,032	12,786	
38 Class COS with Staff Recommended ROR	4,745,840	3,337,433	895,334	19,033	55,470	312,435	126,115	
39 Potential Post True-up Class COS Percentage	100.00%	70.32%	18.87%	0.40%	1.17%	6.58%	2.66%	
40								
41 Required revenue to reach post true-up Class COS	824,155	540,443	128,361	(3,151)	8,359	127,993	22,150	

Office of the Public Counsel  
MAMC Class Cost of Service Summary

St. Charles

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	3,470,525	2,225,207	290,821	350	74,853		109,620	769,673
2 Depreciation Expenses/TOT Def Tax Exp	2,029,455	1,326,542	170,484	204	48,192		60,093	423,941
3 Current Income Taxes	(90,236)	(58,324)	(7,589)	(9)	(2,029)		(2,781)	(19,503)
4 TOTAL Expenses and Taxes	5,409,744	3,493,426	453,716	544	121,016		166,932	1,174,111
5								
6 Spread of fire expenses & taxes to others	1,174,111	836,968	212,980	182	123,980		0	(1,174,111)
7 TOTAL Expenses and Taxes after Spread	5,409,744	4,330,394	666,696	727	244,996		166,932	
8								
9 Current Revenue								
10 Rate Revenue	10,013,671	8,494,326	1,110,547	2,014	259,173		147,611	0
11 Other Revenue	287,351	219,507	40,148	48	11,226		16,422	0
12 Spread of fire revenue to others	0	0	0	0	0		0	0
13 TOTAL Current Revenues	10,301,022	8,713,833	1,150,695	2,062	270,399		164,033	0
14 Current Revenue Percentage	100.00%	84.59%	11.17%	0.02%	2.62%		1.59%	0.00%
15								
16 Net OPERATING INCOME	4,891,278	4,383,439	483,999	1,335	25,403		(2,899)	0
17								
18 TOTAL Rate Base	42,739,060	27,624,281	3,594,559	4,318	961,243		1,317,151	9,237,509
19								
20 Spread of fire rate base to others	9,237,509	6,584,985	1,675,656	1,435	975,433		0	(9,237,509)
21 TOTAL Rate Base after Spread	42,739,060	34,209,266	5,270,215	5,753	1,936,676		1,317,151	
22								
23 Implicit Rate of Return (ROR)	11.44%	12.81%	9.18%	23.21%	1.31%		-0.22%	
24								
25 Net Operating Income with Equalized ROR	4,891,278	3,915,084	603,151	658	221,643		150,741	
26								
27 Class COS with Equalized ROR	10,301,022	8,245,478	1,269,847	1,385	466,639		317,673	
28 Current Class COS Percentage	100.00%	80.05%	12.33%	0.01%	4.53%		3.08%	
29								
30 Net Operating Income with Equalized ROR	4,891,278	3,915,084	603,151	658	221,643		150,741	
31 Revenue Neutral Shift to Equalize Class ROR	0	(468,355)	119,151	(677)	196,240		153,640	
32 Revenue Increase/Decrease % of Current Revenue	0.00%	-5.37%	10.35%	-33.82%	72.57%		93.66%	
33								
34 Staff Midpoint ROR	7.823%	7.823%	7.823%	7.823%	7.823%		7.823%	
35								
36 Net Operating Income with Recommended ROR	3,343,477	2,676,191	412,289	450	151,506		103,041	
37 True-up plus add'l taxes	727,955	556,084	101,709	121	28,439		41,602	
38 Class COS with Staff Recommended ROR	9,481,176	7,562,668	1,180,694	1,298	424,941		311,574	
39 Potential Post True-up Class COS Percentage	100.00%	79.77%	12.45%	0.01%	4.48%		3.29%	
40								
41 Required revenue to reach post true-up Class COS	(819,846)	(1,151,165)	29,999	(764)	154,542		147,541	

Office of the Public Counsel  
MWC Class Cost of Service Summary

Joplin

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	6,063,699	2,397,444	1,468,564	626,834	224,961	93,298	474,601	777,996
2 Depreciation Expenses TOT Def Tax Exp	2,230,591	1,006,214	475,177	299,780	76,804	61,078	126,291	185,248
3 Current Income Taxes	(435,097)	(184,703)	(95,781)	(64,403)	(15,487)	(12,581)	(24,163)	(37,979)
4 TOTAL Expenses and Taxes	7,859,193	3,218,956	1,847,960	862,211	286,278	141,794	576,729	925,265
5 Spread of fire expenses & taxes to others	925,265	694,302	167,597	32,999	30,368	141,794	0	(925,265)
6 TOTAL Expenses and Taxes after Spread	7,859,193	3,913,257	2,015,557	895,210	316,646	0	576,729	0
7								
8								
9 Current Revenue								
10 Rate Revenue	13,229,519	6,956,498	2,800,242	2,214,157	465,233	442,452	350,937	0
11 Other Revenue	241,081	97,341	102,243	(15,010)	13,896	(9,697)	52,308	0
12 Spread of fire revenue to others	0	0	0	0	0	0	0	0
13 TOTAL Current Revenues	13,470,600	7,053,839	2,902,485	2,199,147	479,129	432,755	403,245	0
14 Current Revenue Percentage	100.00%	52.36%	21.55%	16.33%	3.56%	3.21%	2.99%	0.00%
15								
16 Net OPERATING INCOME	5,611,407	3,140,582	886,928	1,303,937	162,483	290,961	(173,484)	0
17								
18 TOTAL Rate Base	38,548,166	16,364,064	8,485,886	5,705,894	1,372,112	1,114,661	2,140,776	3,364,773
19								
20 Spread of fire rate base to others	3,364,773	2,524,862	609,474	120,002	110,436	0	0	(3,364,773)
21 TOTAL Rate Base after Spread	38,548,166	18,888,926	9,095,359	5,825,895	1,482,548	1,114,661	2,140,776	0
22								
23 Implicit Rate of Return (ROR)	14.56%	16.63%	9.75%	22.38%	10.96%	26.10%	-8.10%	0
24								
25 Net Operating Income with Equalized ROR	5,611,407	2,749,637	1,324,000	848,068	215,813	162,260	311,630	0
26								
27 Class COS with Equalized ROR	13,470,600	6,662,894	3,339,557	1,743,278	532,459	304,054	888,359	0
28 Current Class COS Percentage	100.00%	49.46%	24.79%	12.94%	3.95%	2.26%	6.59%	0
29								
30 Net Operating Income with Equalized ROR	5,611,407	2,749,637	1,324,000	848,068	215,813	162,260	311,630	0
31 Revenue Neutral Shift to Equalize Class ROR	0	(390,945)	437,072	(455,869)	53,330	(128,701)	485,114	0
32 Revenue Increase/Decrease % of Current Revenue	0.00%	-5.54%	15.06%	-20.73%	11.13%	-29.74%	120.30%	0
33								
34 Staff Midpoint ROR	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	0
35								
36 Net Operating Income with Recommended ROR	3,015,623	1,477,681	711,530	455,760	115,980	87,200	167,473	0
37 True-up plus add'l taxes	4,014,993	1,621,131	1,702,769	(249,980)	231,428	(161,498)	871,143	0
38 Class COS with Staff Recommended ROR	14,889,809	7,012,069	4,429,855	1,100,990	664,054	67,496	1,615,345	0
39 Potential Post True-up Class COS Percentage	100.00%	47.09%	29.75%	7.39%	4.46%	0.45%	10.85%	0
40								
41 Required revenue to reach post true-up Class COS	1,419,209	(41,770)	1,527,370	(1,098,157)	184,924	(365,259)	1,212,100	0

Office of the Public Counsel  
MAWC Class Cost of Service Summary

St. Joseph

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	7,968,478	3,097,962	1,235,389	1,829,800	256,673	811,456	156,821	\$80,376
2 Depreciation Expenses TOIT DeTax Exp	4,085,508	1,576,212	634,944	940,408	132,601	411,690	84,664	304,989
3 Current Income Taxes	(626,633)	(237,883)	(98,376)	(146,325)	(20,612)	(63,808)	(12,780)	(46,867)
4 TOTAL Expenses and Taxes	11,427,333	4,436,289	1,771,957	2,623,883	368,662	1,159,338	228,704	838,498
5 Spread of fire expenses & taxes to others	838,498	664,957	120,489	29,660	23,391	1,159,338	0	(838,498)
6 TOTAL Expenses and Taxes after Spread	11,427,333	5,101,246	1,892,447	2,653,544	392,054	0	228,704	0
7								
8								
9 Current Revenue								
10 Rate Revenue	22,593,550	10,814,117	4,112,671	4,635,162	754,729	2,046,577	230,294	0
11 Other Revenue	290,799	102,789	57,416	78,379	12,804	29,821	9,589	0
12 Spread of fire revenue to others	0	0	0	0	0	0	0	0
13 TOTAL Current Revenues	22,884,349	10,916,906	4,170,087	4,713,541	767,533	2,076,398	239,883	0
14 Current Revenue Percentage	100.00%	47.70%	18.22%	20.60%	3.35%	9.07%	1.05%	0.00%
15								
16 Net OPERATING INCOME	11,457,016	5,815,660	2,277,641	2,059,997	375,479	917,060	11,179	0
17								
18 TOTAL Rate Base	80,131,965	30,419,066	12,579,632	18,710,973	2,635,725	8,159,294	1,634,218	5,993,057
19								
20 Spread of fire rate base to others	5,993,057	4,752,696	861,182	211,993	167,187	0	0	(5,993,057)
21 TOTAL Rate Base after Spread	80,131,965	35,171,761	13,440,814	18,922,966	2,802,912	8,159,294	1,634,218	0
22								
23 Implicit Rate of Return (ROR)	14.30%	16.54%	16.95%	10.89%	13.40%	11.24%	0.68%	
24								
25 Net Operating Income with Equalized ROR	11,457,016	5,028,748	1,921,725	2,705,546	400,752	1,166,590	233,655	
26								
27 Class COS with Equalized ROR	22,884,349	10,129,994	3,814,172	5,359,090	792,805	2,325,928	462,360	
28 Current Class COS Percentage	100.00%	44.27%	16.67%	23.42%	3.46%	10.16%	2.02%	
29								
30 Net Operating Income with Equalized ROR	11,457,016	5,028,748	1,921,725	2,705,546	400,752	1,166,590	233,655	
31 Revenue Neutral Shift to Equalize Class ROR	(0)	(786,912)	(355,916)	645,549	25,273	249,330	222,476	
32 Revenue Increase/Decrease % of Current Revenue	0.00%	-7.21%	-8.53%	13.70%	3.29%	12.02%	92.74%	
33								
34 Staff Midpoint ROR	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	
35								
36 Net Operating Income with Recommended ROR	6,268,724	2,751,487	1,051,475	1,480,344	219,272	638,302	127,845	
37 True-up plus add'l taxes	544,306	192,396	107,470	146,706	23,966	55,819	17,949	
38 Class COS with Staff Recommended ROR	18,240,363	8,045,129	3,051,391	4,280,594	635,291	1,853,458	374,498	
39 Potential Post True-up Class COS Percentage	100.00%	44.11%	16.73%	23.47%	3.48%	10.16%	2.05%	
40								
41 Required revenue to reach post true-up Class COS	(4,643,986)	(2,871,777)	(1,118,696)	(432,947)	(132,241)	(222,940)	134,615	



Office of the Public Counsel  
MAMC Class Cost of Service Summary

St. Louis County

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RATE A & K	RATE J	RATE B, G & H	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	74,692,151	62,136,726	4,325,851	4,624,527	1,311,243	2,293,804
2 Depreciation Expenses TOIT Def Tax Exp	27,902,001	23,666,354	768,781	667,365	999,277	1,800,224
3 Current Income Taxes	5,531,436	4,769,940	108,172	72,804	218,829	361,691
4 TOTAL Expenses and Taxes	108,125,588	90,573,020	5,202,803	5,364,696	2,529,349	4,455,719
5 Spread of fire expenses & taxes to oth	4,455,719	4,309,017	146,702	0	0	(4,455,719)
6 TOTAL Expenses and Taxes after Spread	108,125,588	94,882,037	5,349,505	5,364,696	2,529,349	0
7						
8						
9 Current Revenue						
10 Rate Revenue	129,215,522	110,356,145	5,591,154	5,366,135	1,364,770	6,537,318
11 Other Revenue	1,321,225	1,137,704	76,462	80,559	26,500	0
12 Spread of fire revenue to others	6,537,318	6,322,081	215,237	0	0	0
13 TOTAL Current Revenues	130,536,747	117,815,930	5,882,853	5,446,694	1,391,270	6,537,318
14 Current Revenue Percentage	100.00%	90.25%	4.51%	4.17%	1.07%	0.00%
15						
16 Net OPERATING INCOME	22,411,159	22,933,892	533,348	81,998	(1,138,080)	0
17						
18 TOTAL Rate Base	420,724,104	362,804,282	8,227,621	5,537,496	16,644,273	27,510,433
19						
20 Spread of fire rate base to others	27,510,433	26,604,668	905,764	0	0	(27,510,433)
21 TOTAL Rate Base after Spread	420,724,104	389,408,950	9,133,385	5,537,496	16,644,273	0
22						
23 Implicit Rate of Return (ROR)	5.33%	5.89%	5.84%	1.48%	-6.84%	
24						
25 Net Operating Income with Equalized ROR	22,411,159	20,743,061	486,518	294,972	886,608	
26						
27 Class COS with Equalized ROR	130,536,747	115,625,098	5,836,023	5,659,668	3,415,958	
28 Current Class COS Percentage	100.00%	88.58%	4.47%	4.34%	2.62%	
29						
30 Net Operating Income with Equalized ROR	22,411,159	20,743,061	486,518	294,972	886,608	
31 Revenue Neutral Shift to Equalize Class ROR	0	(2,190,831)	(46,830)	212,974	2,024,688	
32 Revenue Increase/Decrease % of Current Revenue	0.00%	-1.86%	-0.80%	3.91%	145.53%	
33						
34 Staff Midpoint ROR	7.823%	7.823%	7.823%	7.823%	7.823%	
35						
36 Net Operating Income with Recommended ROR	32,913,247	30,463,462	714,505	433,198	1,302,081	
37 True-up plus add'l taxes	7,573,290	6,521,342	438,283	461,769	151,896	
38 Class COS with Staff Recommended ROR	148,612,125	131,866,842	6,502,293	6,259,663	3,983,327	
39 Potential Post True-up Class COS Percentage	100.00%	88.73%	4.38%	4.21%	2.68%	
40						
41 Required revenue to reach post true-up Class COS	18,075,378	14,050,912	619,439	812,969	2,592,058	

Office of the Public Counsel  
MAWC Class Cost of Service Summary

Warrensburg

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE
1 O & M Expenses	1,358,020	715,091	191,182	24,712	137,120	115,230	41,446
2 Depreciation Expenses TOIT Def Tax Exp	690,209	334,712	100,239	11,969	69,215	54,428	30,738
3 Current Income Taxes	178,333	80,938	25,999	3,109	18,217	14,902	8,707
4 TOTAL Expenses and Taxes	2,226,562	1,130,741	317,420	39,791	224,552	184,560	80,891
5							
6 Spread of fire expenses & taxes to others	248,608	183,983	34,899	3,498	26,228		0
7 TOTAL Expenses and Taxes after Spread	2,226,562	1,314,723	352,320	43,288	250,780	184,560	80,891
8							
9 Current Revenue							
10 Rate Revenue	3,060,438	1,680,958	623,844	70,106	379,438	225,743	80,349
11 Other Revenue	78,447	46,790	12,085	1,573	8,604	7,103	2,291
12 Spread of fire revenue to others	0	0	0	0	0	0	0
13 TOTAL Current Revenues	3,138,885	1,727,748	635,929	71,679	388,042	232,846	82,640
14 Current Revenue Percentage	100.00%	55.04%	20.26%	2.28%	12.36%	7.42%	2.63%
15							
16 Net OPERATING INCOME	912,323	413,025	283,610	28,391	137,262	48,286	1,749
17							
18 TOTAL Rate Base	14,804,037	6,718,906	2,158,287	258,124	1,512,283	1,237,032	722,769
19							
20 Spread of fire rate base to others	2,196,635	1,625,624	308,362	30,904	231,744	0	0
21 TOTAL Rate Base after Spread	14,804,037	8,344,530	2,466,650	289,029	1,744,027	1,237,032	722,769
22							
23 Implicit Rate of Return (ROR)	6.16%	4.95%	11.50%	9.82%	7.87%	3.90%	0.24%
24							
25 Net Operating Income with Equalized ROR should	912,323	514,245	152,011	17,812	107,479	76,234	44,542
26							
27 Class COS with Equalized ROR	3,138,885	1,828,969	504,331	61,100	358,259	260,794	125,432
28 Current Class COS Percentage	100.00%	58.27%	16.07%	1.95%	11.41%	8.31%	4.00%
29							
30 Net Operating Income with Equalized ROR	912,323	514,245	152,011	17,812	107,479	76,234	44,542
31 Revenue Neutral Shift to Equalize Class ROR	0	101,220	(131,598)	(10,579)	(29,784)	27,948	42,793
32 Revenue Increase/Decrease % of Current Revenue	0.00%	5.86%	-20.69%	-14.76%	-7.68%	12.00%	51.78%
33							
34 Staff Midpoint ROR	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%	7.823%
35							
36 Net Operating Income with Recommended ROR	1,158,120	652,793	192,966	22,611	136,435	96,773	56,542
37 True-up plus add'l taxes	178,285	106,340	27,466	3,574	19,555	16,144	5,206
38 Class COS with Staff Recommended ROR	3,562,967	2,073,855	572,752	69,473	406,770	297,477	142,639
39 Potential Post True-up Class COS Percentage	100.00%	58.21%	16.08%	1.95%	11.42%	8.35%	4.00%
40							
41 Required revenue to reach post true-up Class COS	424,082	346,107	(63,177)	(2,205)	18,728	64,630	59,999