

Exhibit No.:

Issue(s):

Rate Design/
Cost of Service

Witness/Type of Exhibit:

Sponsoring Party:

Case No.:

Meisenheimer/Direct
Public Counsel
WR-2008-0311

DIRECT TESTIMONY

OF

BARBARA A. MEISENHEIMER

Submitted on Behalf of the Office of the Public Counsel

Missouri-American Water Company

Case No. WR-2008-0311

September 5, 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)
for water and sewer service provided)
in Missouri Service Areas)

WR-2008-0311

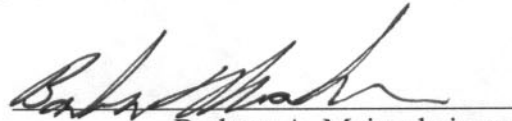
AFFIDAVIT OF BARBARA A. MEISENHEIMER

STATE OF MISSOURI)
)
COUNTY OF COLE)

SS

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

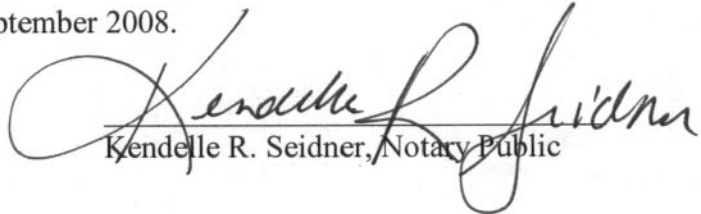
- 1. My name is Barbara A. Meisenheimer. I am the Chief Utility Economist for the Office of the Public Counsel.
- 2. Attached hereto and made a part hereof for all purposes is my direct testimony.
- 3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct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


Barbara A. Meisenheimer

Subscribed and sworn to me this 5th day of September 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.

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DIRECT TESTIMONY
OF
BARBARA A. MEISENHEIMER

MISSOURI AMERICAN WATER COMPANY

CASE NO. WR-2008-0311

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

A. Barbara A. Meisenheimer, Chief Utility Economist, Office of the Public Counsel (OPC or Public Counsel), P O Box 2230, Jefferson City, Missouri 65102.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND.

A. I hold a Bachelor of Science degree in Mathematics from the University of Missouri-Columbia (UMC) and have completed the comprehensive exams for a Ph.D. in Economics from the same institution. My two fields of study were Quantitative Economics and Industrial Organization. My outside field of study was Statistics.

I have been with the Office of the Public Counsel (Public Counsel) since January 1996. Over the past 14 years I have also taught courses for the following institutions: University of Missouri-Columbia, William Woods University, and Lincoln University. I currently teach undergraduate and graduate level economics courses and undergraduate statistics for William Woods University.

1 **Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THIS COMMISSION?**

2 A. Yes. I have testified on numerous issues before the Missouri Public Service
3 Commission. (PSC or Commission). I have testified on economic issues and
4 policy issues in the areas of telecommunications, gas, electric, water and sewer.

5 **Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE COMMISSION ON WATER**
6 **RELATED COST OF SERVICE AND RATE DESIGN ISSUES?**

7 A. Yes. I testified on class of service and rate design issues in the last two Missouri
8 American rate cases WR-2003-0500 and WR-2007-0216.

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

10 A. The purpose of my testimony is to present Public Counsel's preliminary Class
11 Cost of Service (CCOS) studies and to present Public Counsel's position on how
12 the results of these studies should affect the rate design for customer classes
13 within each district. I will also provide testimony on district specific pricing
14 versus single tariff pricing.

15 **I. RATE DESIGN**

16 **Q. WHAT IS THE RELATIVE IMPORTANCE OF CCOS STUDY RESULTS IN DESIGNING**
17 **RATES?**

18 A. A CCOS study provides the Commission with a general guide as to the just and
19 reasonable rate for the provision of service that corresponds to costs. In addition,

1 other factors are also relevant considerations when determining the appropriate
2 rate for a service, including the value of a service, affordability, rate impact, and
3 rate continuity, etc. The determination as to the manner in which the results of a
4 cost of service study and all the other factors are balanced in setting rates can only
5 be determined on a case-by-case basis.

6 **Q. HOW DOES PUBLIC COUNSEL ACCOMMODATE OTHER FACTORS SUCH AS**
7 **AFFORDABILITY, RATE IMPACT, AND RATE CONTINUITY IN THE RATE DESIGN**
8 **RECOMMENDATIONS THAT IT MAKES TO THE COMMISSION?**

9 A. Generally, Public Counsel has recommended that the Commission adopt a rate
10 design that balances movement toward cost of service with rate impact and
11 affordability considerations. In cases where the existing revenue structure within
12 a district differs greatly from the class cost of service or where the district
13 revenues differ greatly from district costs, a movement toward costs should be
14 made.

15 **Q. PLEASE PROVIDE SOME BACKGROUND ON PAST COMMISSION DECISIONS**
16 **RELATED TO MISSOURI AMERICAN'S DISTRICT COST RECOVERY.**

17 A. With respect to shifts between districts, the Commission decided in its Report and
18 Order in WR-2000-281 to move away from single tariff pricing (a single
19 company-wide tariff that would apply to each class) toward district specific
20 pricing. The Commission approved additional movement toward district specific
21 pricing in WR-2003-0500 and WR-2007-216. Although most of the parties in
22 both WR-2003-0500 and WR-2007-216 finally reached agreement and offered a

1 joint proposal on district cost and rate design, the process was extremely
2 contentious in part due to a long history of alleged subsidies between and within
3 districts.

4 **Q. DO YOU SUPPORT THE COMMISSION'S PAST EFFORTS TO MOVE THIS COMPANY**
5 **TOWARD DISTRICT SPECIFIC PRICING?**

6 A. Yes. The Commission's efforts have merit from both an economic and public
7 policy perspective. Moving each district's revenue closer to its district specific
8 cost can work to reduce market distortions by reducing incentives for making
9 excessive district specific investments. The decision to move toward district
10 specific cost recovery also seemed to better reflect the sentiment received in
11 public comments indicating that districts generally are willing to pay their own
12 cost of service. The Commission also did not mandate that district specific cost
13 recovery be achieved in all cases or within a specific timeframe. This flexibility
14 allows for deviation from strict district specific cost recovery when reasonably
15 necessary based on consideration of all relevant factors.

16 **Q. DO YOU RECOMMEND THAT THE COMMISSION CONTINUE THIS APPROACH TO**
17 **DETERMINING INTER-DISTRICT COSTS?**

18 A Yes.

1 **Q. HAVE YOU PERFORMED A STUDY OF THE INTRA-DISTRICT COSTS OF SERVING**
2 **CUSTOMERS CLASSES WITH DIFFERING DEMAND CHARACTERISTICS?**

3 A. Yes. I performed a class cost of service study for nine of the ten water districts
4 served by the Company. I will refer to these districts as Brunswick, Jefferson
5 City, Joplin, Mexico, Parkville, St Charles, St Joseph, St Louis County and
6 Warrensburg. I did not perform a class cost of service study for the final water
7 district, Warren County, because the district serves customers with similar usage
8 and demand characteristics so a study that is designed to determine rates based on
9 differences in cost characteristics is unnecessary.

10 **Q. WHAT ARE THE RESULTS OF PUBLIC COUNSEL'S PRELIMINARY CLASS COST OF**
11 **SERVICE STUDIES?**

12 A. Schedule BAM-1-1 through 1-9 provides a detailed summary the preliminary
13 results of my study for each district. Schedule BAM-2 attached to this testimony
14 to shows each customer class's share of cost and the class's share of revenue if
15 costs were based on an equalized rate of return. Schedule BAM-3 illustrates the
16 percentage change in rate revenue necessary to achieve an equalized return.

17 While the Commission might decide it is appropriate to focus on aligning
18 certain classes in certain districts, I do not believe a comprehensive adjustment is
19 necessary in this case. For example, my studies indicate that for most districts,
20 the Residential Class is reasonably close to its cost of service. This is also
21 generally true for the business classes in many districts.

II. CLASS COST OF SERVICE STUDY METHOD

Q. WHAT DOES YOUR CLASS COST OF STUDY DO?

A. My class cost of service study divides up the total cost of activities and facilities used in providing service among customer classes based on cost allocations that reflect the underlying customer characteristics that drive costs. This is accomplished by first dividing costs into functional “buckets” including Source of Supply, Pumping, Water Treatment, Transmission and Distribution, Operations and Maintenance. The costs in each functional bucket were then further disaggregated by classification into subcategories based on characteristics of cost causation. For example, the Base Extra Capacity method that I used for my study classifies costs into four primary cost components: Base Costs, Extra Capacity Costs, Customer Costs, and costs directly attributable with Fire Protection.

- Base Costs vary with the total quantity of water used under average use at an average rate. These costs include certain facilities costs and O&M expenses of supply, treatment, pumping, and distribution facilities.
- Extra capacity costs are associated with use requirements in excess of average. These costs include facilities costs, O&M expenses and capital costs for system capacity in excess of average. These costs were further subdivided based on the maximum-day extra demand and maximum-hour demand.
- Customer costs vary with the number of customers not the amount or rate of water used. These costs include meter reading, billing, accounts and collections expense, and facilities costs and expenses related to meters and services.
- Fire costs are directly attributable to providing fire services. These costs include facilities costs and expenses related to providing hydrants and fire lines

1 The final step in my study apportioned the disaggregated “functionalized and
2 classified” costs to each customer class based on allocation factors reflective of the
3 classification. For example, I used average use by class to allocate base costs, a max
4 day factor and a max hour factor to allocate Excess Capacity costs. An example
5 of a customer related allocation is that I used a weighted allocator of meters actually
6 used by each class to allocate the total district meter costs to the class. I have provided an
7 electronic copy of my workpapers to the parties. The work papers provide a full
8 breakdown of the functionalization and classification of costs as well as formulaic links
9 to the calculations and sources of information I used to complete each district study.

10 **Q. FOR WHICH DISTRICTS DID YOU PERFORM A CCOS?**

11 A. I prepared a CCOS Study for each water district except Warren County Water.
12 The CCOS Study Results are attached as Schedule BAM 1-1 to BAM 1-9.

13 **Q. WHAT CUSTOMER CLASSES DID YOU USE?**

14 A. For most of the Districts, consistent with the CCOS studies performed in the last
15 case, I used a Residential Class, Commercial Class, an Industrial Class, an Other
16 Public Authority Class a Sale for Resale Class and a Private Fire Class. For the St
17 Louis County District I use customer classes based on current rate groups; Rate
18 Group A & K which includes residential commercial and other public authority
19 customers, Rate Group J which includes industrials, Rate Groups B, G and H
20 which are other water utilities that resell service and Rate Groups E & F which
21 include fire service customers.

1 **Q. WHAT DATA IS USED AS THE BASIS FOR YOUR COST STUDY?**

2 A. Data used for this study includes MAWC workpapers filed in support of its direct
3 case, MAWC responses to Staff’s data requests, Staff Accounting data and
4 materials from the Staff studies performed in the last case.

5 **Q. HOW IS THE BASE-EXTRA CAPACITY METHOD APPLIED TO MAINS COST**
6 **ALLOCATION?**

7 A: Mains costs are allocated to base and maximum day and maximum hour extra
8 capacity cost components in recognition of the fact that mains provide for some
9 constant level of average annual water usage as well as peaking that may be
10 associated with volatility in daily use or even hourly use.

11 Because mains cost is a joint cost, there is no clear separation between
12 these two cost categories with respect to constant and peaking needs. I used a
13 “capacity factor” that reflects how the system load is spread and whether there is a
14 great difference between the average demand on the system and the demand at
15 peak.

16 **Q. HOW DO YOUR DEMAND RELATED ALLOCATORS COMPARE WITH THOSE THAT**
17 **WILL LIKELY BE USED BY OTHER PARTIES?**

18 A. I used methods similar to those used by Staff in the last case to develop my Base
19 and Excess Capacity allocator for Transmission and Distributions Mains as well
20 as other demand related allocators. I later adjusted the results to accommodate
21 some of the points made by the Company regarding a reduction in the allocation

1 of the cost of smaller mains to large customers in the Joplin, St Joseph and St
2 Louis. The adjustments I made are reflected in reduced allocation factors that
3 were provided to the other parties in my workpapers.

4 **Q. HOW DID YOU DEVELOP SOME OF THE OTHER ALLOCATORS USED IN YOUR**
5 **STUDY?**

6 A. The allocators were developed in order to reflect the differences in costs of
7 furnishing service to the different classes. Plant expenses were allocated on the
8 same basis as Plant accounts. Customer related allocators such those for
9 allocating the costs of meters and service accounts were developed using various
10 weights to reflect the fact that there are generally greater costs associated with
11 serving a bigger customer than a smaller customer. The allocator for the fire
12 districts was based on data from the Company and a past Staff CCOS Study.

13 **Q. PLEASE DESCRIBE HOW YOU ALLOCATED VARIOUS PLANT ACCOUNTS.**

14 A. Investment in source of supply was allocated based on Base and Base and Max
15 Day allocations by rate class. This recognizes the fact that such facilities are
16 sized to meet the base supply requirement in total and variations in daily need

17 Pumping facilities were allocated based respectively on the Base and Max
18 capacity allocator. Treatment facilities were allocated based respectively on the
19 Base and Max Day with Fire capacity allocator.

20 Distribution reservoir and standpipes serve principally to assist in meeting the
21 peak requirements of the system and to provide some element of system

1 reliability. These items were allocated based on a Storage allocator that reflects
2 regular system load and peak load, with a greater weight given to the peak load.

3 Transmission and Distribution Mains were allocated based on Base and Excess
4 Capacity Factors adjusted for customer use in Joplin, St Joseph and St Louis as
5 previously described

6 Fire mains and hydrants were allocated directly to private and public fire
7 protection services

8 General plant includes office buildings, furniture and equipment, vehicles, and
9 other related items. General plant was allocated to all customer classes based on
10 the overall allocation resulting from the allocation of all other non-general plant
11 facilities.

12 **Q. HOW WERE OPERATION AND MAINTENANCE EXPENSES ALLOCATED?**

13 A. Source of supply, pumping, water treatment, and transmission and distribution
14 expenses were allocated using the “expenses follow plant” principle for most
15 accounts in this category. “Expenses follow plant” basically means that for any
16 expense related to a particular rate base component, the expense should be
17 allocated in the same manner as the rate base account.

18 **Q. ARE THERE OTHER OPERATION AND MAINTENANCE EXPENSES TO WHICH THE**
19 **“EXPENSES FOLLOW PLANT” PRINCIPLE DOES NOT APPLY?**

20 A. Yes. Customer account expenses were allocated based on the number of meters
21 and the number of customer bills in each class.

1 Property insurance expenses were allocated based on the resulting
2 allocation of total plant since this expense is linked to the amount of plant that the
3 Company requires in order to serve each customer class.

4 Injuries and damages and employee pensions and benefits are payroll-
5 related expenses so they were allocated on the basis of the amount of labor
6 expense that I had previously allocated to each class.

7 The remaining administrative and general expenses accounts represent
8 expenditures that support the Company's overall operation, so they were allocated
9 on the basis of each customer class' share of total plant or cost of service.

10 **Q. HOW DID YOU ALLOCATE TAXES OTHER THAN INCOME TAXES?**

11 A. Property taxes were allocated on the basis of the amount of total plant that I had
12 previously allocated to each class. Other taxes in this category were allocated on
13 the basis of the amount of total cost of service.

14 **Q. HOW DID YOU ALLOCATE STATE AND FEDERAL INCOME TAXES?**

15 A. These taxes were allocated on the basis of rate base since a utility company's
16 income taxes are a function of the size of its rate base and associated earnings.
17 Thus a class should contribute revenues for income taxes in accordance with the
18 proportion of rate base that is necessary to serve it.

19 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

20 A. Yes.

Office of the Public Counsel
MAWC Class Cost of Service Summary

Brunswick District

CLASS COST OF SERVICE SUMMARY:

	TOTAL	OTHER PUBLIC AUTHORITY				SALES FOR RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
		RESIDENTIAL	COMMERCIAL	INDUSTRIAL				
1 O & M Expenses	435,200	181,222	47,003	2,287	7,256	112,654	5,911	78,868
2 Depreciation Expenses TOIT Def Tax Exp	88,696	39,936	10,090	469	1,493	20,576	1,478	14,654
3 Current Income Taxes	56,117	24,525	6,144	280	903	12,272	1,008	10,984
4 TOTAL Expenses and Taxes	580,013	245,683	63,238	3,037	9,652	145,502	8,396	104,505
5	104,505	81,909	19,525	762	2,309	145,502	0	(104,505)
6 Spread of fire expenses & taxes to others	580,013	327,593	82,762	3,799	11,961	145,502	8,396	
7 TOTAL Expenses and Taxes after Spread								
8								
9 Current Revenue	295,760	152,925	40,679	2,888	6,916	84,740	7,612	0
10 Rate Revenue	3,515	1,850	471	22	71	1,032	68	0
11 Other Revenue	0	0	0	0	0	0	0	0
12 Spread of fire revenue to others	299,275	154,775	41,150	2,910	6,987	85,772	7,680	0
13 TOTAL Current Revenues	100,000%	51.72%	13.75%	0.97%	2.33%	28.66%	2.57%	0.00%
14 Current Revenue Percentage								
15	(280,738)	(172,817)	(41,612)	(889)	(4,974)	(59,730)	(716)	0
16 Net OPERATING INCOME	1,567,625	685,113	171,635	7,833	25,234	342,829	28,155	306,827
17 TOTAL Rate Base	306,827	240,486	57,324	2,238	6,779	0	0	(306,827)
18	1,567,625	925,598	228,959	10,071	32,013	342,829	28,155	
19 Spread of fire rate base to others								
20 TOTAL Rate Base after Spread								
21								
22								
23 Implicit Rate of Return (ROR)	-17.91%	-18.67%	-18.17%	-8.82%	-15.54%	-17.42%	-2.54%	
24	(280,738)	(165,761)	(41,003)	(1,803)	(5,733)	(61,396)	(5,042)	
25 Net Operating Income with Equalized ROR	(580,013)	(320,536)	(82,154)	(4,714)	(12,720)	(147,167)	(12,722)	
26 Class COS with Equalized ROR	100.00%	55.26%	14.16%	0.81%	2.19%	25.37%	2.19%	
27								
28 Class COS Percentage	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	
29 Staff Midpoint ROR								
30								
31								
32 Net Operating Income with Recommended ROR	121,209	71,567	17,703	779	2,475	26,508	2,177	
33 True-up plus add'l taxes	178,285	93,856	23,909	1,127	3,599	52,325	3,469	
34 Class COS with Staff Recommended ROR	879,507	493,016	124,375	5,704	18,036	224,334	14,042	
35 CLASS COS Percentage	100.00%	56.06%	14.14%	0.65%	2.05%	25.51%	1.60%	
36	580,232	338,241	83,224	2,794	11,049	138,562	6,362	
37								
38								
39 Current Revenue	299,275	154,775	41,150	2,910	6,987	85,772	7,680	
40 Class Percentage	100.00%	51.72%	13.75%	0.97%	2.33%	28.66%	2.57%	
41								
42 Class COS with Equalized ROR	(580,013)	(320,536)	(82,154)	(4,714)	(12,720)	(147,167)	(12,722)	
43 CLASS COS Percentage	100.00%	55.26%	14.16%	0.81%	2.19%	25.37%	2.19%	
44								
45 Net Operating Income with Equalized ROR	(280,738)	(165,761)	(41,003)	(1,803)	(5,733)	(61,396)	(5,042)	
46 Revenue Neutral Shift to Equalize Class ROR	0	7,057	609	(915)	(759)	(1,665)	(4,326)	
47 Revenue Increase/Decrease % of Current Revenue	0.00%	4.56%	1.48%	-31.43%	-10.86%	-1.94%	-56.33%	
48								
49 1/2 of Revenue Neutral Shift	0	3,528	304	(457)	(379)	(833)	(2,163)	
50 Revenue Increase/Decrease Percentage	0.00%	2.28%	0.74%	-15.72%	-5.43%	-0.97%	-28.16%	
51								
52 Revenue Neutral Margin Revenue	299,275	158,303	41,455	2,453	6,608	84,939	5,517	
53 Recommended Class Revenue Percentage	100.00%	52.90%	13.85%	0.82%	2.21%	28.38%	1.84%	

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	3,159,070	1,707,653	919,463	195,371	235,480		26,435	74,667
2 Depreciation Expenses/TOIT Def Tax Exp	871,967	384,746	236,154	45,295	64,512		17,669	123,592
3 Current Income Taxes	(5,628)	(2,343)	(1,486)	(276)	(410)		(144)	(968)
4 TOTAL Expenses and Taxes	4,025,409	2,090,056	1,154,131	240,389	299,582		43,960	197,290
5 Spread of fire expenses & taxes to others	197,290	119,631	49,482	3,077	25,100		0	(197,290)
6 TOTAL Expenses and Taxes after Spread	4,025,409	2,209,686	1,203,613	243,467	324,682		43,960	
8								
9 Current Revenue	5,351,600	2,919,103	1,583,279	263,551	435,411		150,256	0
10 Rate Revenue	39,715	22,332	11,734	2,589	2,954		105	0
11 Other Revenue	0	0	0	0	0		0	0
12 Spread of fire revenue to others	5,391,315	2,941,435	1,595,013	266,140	438,365		150,361	0
13 TOTAL Current Revenues	100.00%	54.56%	29.58%	4.94%	8.13%		2.79%	0.00%
14 Current Revenue Percentage								
15 Net OPERATING INCOME	1,365,906	731,749	391,400	22,674	113,683		106,400	0
16 TOTAL Rate Base	13,110,088	5,458,483	3,461,320	643,364	955,899		335,355	2,255,668
17 Spread of fire rate base to others	2,255,668	1,367,763	565,744	35,185	286,975		0	(2,255,668)
18 TOTAL Rate Base after Spread	13,110,088	6,826,246	4,027,064	678,549	1,242,874		335,355	
19								
20 Implicit Rate of Return (ROR)	10.42%	10.72%	9.72%	3.34%	9.15%		31.73%	
21								
22 Net Operating Income with Equalized ROR	1,365,906	711,209	419,569	70,696	129,492		34,940	
23								
24 Class COS with Equalized ROR	(4,025,409)	(2,230,227)	(1,175,444)	(195,444)	(308,873)		(115,421)	
25								
26 Class COS Percentage	100.00%	55.40%	29.20%	4.86%	7.67%		2.87%	
27								
28 Staff Midpoint ROR	7.732%	7.732%	7.732%	7.732%	7.732%		7.732%	
29								
30 Net Operating Income with Recommended ROR	1,013,672	527,805	311,373	52,465	96,099		25,930	
31								
32 True-up plus add'l taxes	178,285	100,253	52,676	11,625	13,261		471	
33								
34 Class COS with Staff Recommended ROR	5,217,366	2,837,744	1,567,662	307,557	434,043		70,361	
35								
36 Class COS Percentage	100.00%	54.39%	30.05%	5.89%	8.32%		1.35%	
37								
38								
39 Current Revenue	5,391,315	2,941,435	1,595,013	266,140	438,365		150,361	
40								
41 Class Percentage	100.00%	54.56%	29.58%	4.94%	8.13%		2.79%	
42								
43 Class COS with Equalized ROR	(4,025,409)	(2,230,227)	(1,175,444)	(195,444)	(308,873)		(115,421)	
44								
45 Class COS Percentage	100.00%	55.40%	29.20%	4.86%	7.67%		2.87%	
46								
47 Net Operating Income with Equalized ROR	1,365,906	711,209	419,569	70,696	129,492		34,940	
48								
49 Revenue Neutral Shift to Equalize Class ROR	(0)	(20,541)	28,169	48,022	15,809		(71,461)	
50								
51 Revenue Increase/Decrease % of Current Revenue	0.00%	-0.70%	1.77%	18.04%	3.61%		-47.53%	
52								
53 1/2 of Revenue Neutral Shift	(0)	(10,270)	14,085	24,011	7,905		(35,730)	
54								
55 Revenue Increase/Decrease Percentage	0.00%	-0.35%	0.88%	9.02%	1.80%		-23.76%	
56								
57 Revenue Neutral Margin Revenue	5,391,315	2,931,165	1,609,098	290,152	446,270		114,631	
58								
59 Recommended Class Revenue Percentage	100.00%	54.37%	29.85%	5.38%	8.28%		2.13%	

Office of the Public Counsel
MAWC Class Cost of Service Summary

Mexico

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR REALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	1,486,171	632,715	191,137	201,493	125,944	179,783	45,017	110,083
2 Depreciation Expenses/TOIT Def/Tax Exp	583,812	254,715	73,827	78,331	47,757	67,474	20,682	41,026
3 Current Income Taxes	(79,410)	(33,201)	(10,141)	(11,258)	(6,709)	(9,715)	(2,769)	(5,618)
4 TOTAL Expenses and Taxes	1,990,573	854,230	254,823	268,566	166,992	237,542	62,930	145,491
5 Spread of fire expenses & taxes to others	145,491	108,285	19,376	9,367	8,462	0	0	(145,491)
6 TOTAL Expenses and Taxes after Spread	1,990,573	962,515	274,199	277,933	175,455	237,542	62,930	0
7								
8								
9 Current Revenue	3,480,713	1,620,560	476,504	577,210	310,116	374,403	121,920	0
10 Rate Revenue	53,083	27,033	7,586	6,388	4,837	6,369	870	0
11 Other Revenue	0	0	0	0	0	0	0	0
12 Spread of fire revenue to others	0	0	0	0	0	0	0	0
13 TOTAL Current Revenues	3,533,796	1,647,593	484,090	583,598	314,953	380,772	122,790	0
14 Current Revenue Percentage	100.00%	46.62%	13.70%	16.51%	8.91%	10.78%	3.47%	0.00%
15 Net OPERATING INCOME	1,543,223	685,078	209,891	305,666	139,498	143,230	59,860	0
16 TOTAL Rate Base	12,032,331	5,030,610	1,536,588	1,705,858	1,016,506	1,471,965	419,629	851,176
17								
18 Spread of fire rate base to others	851,176	633,511	113,356	54,801	49,508	0	0	(851,176)
19 TOTAL Rate Base after Spread	12,032,331	5,664,121	1,649,944	1,760,658	1,066,015	1,471,965	419,629	0
20								
21								
22 Implicit Rate of Return (ROR)	12.83%	12.10%	12.72%	17.36%	13.09%	9.73%	14.27%	0.00%
23								
24 Net Operating Income with Equalized ROR	1,543,223	726,460	211,616	225,816	136,723	188,789	53,820	0
25 Class COS with Equalized ROR	(1,990,573)	(921,133)	(272,474)	(357,783)	(178,229)	(191,984)	(68,970)	(5,618)
26 Class COS Percentage	100.00%	46.27%	13.69%	17.97%	8.95%	9.64%	3.46%	0.00%
27								
28 Staff Midpoint ROR	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%
29								
30								
31								
32 Net Operating Income with Recommended ROR	930,340	437,950	127,574	136,134	82,424	113,812	32,446	0
33 True-up plus add'l taxes	193,355	98,468	27,632	23,270	17,617	23,201	3,168	0
34 Class COS with Staff Recommended ROR	3,114,268	1,498,933	429,404	437,336	275,496	374,555	98,543	0
35 Class COS Percentage	100.00%	48.13%	13.79%	14.04%	8.85%	12.03%	3.16%	0.00%
36	(419,528)	(148,660)	(54,686)	(146,262)	(39,457)	(6,217)	(24,247)	0
37								
38								
39 Current Revenue	3,533,796	1,647,593	484,090	583,598	314,953	380,772	122,790	0
40 Class Percentage	100.00%	46.62%	13.70%	16.51%	8.91%	10.78%	3.47%	0.00%
41								
42 Class COS with Equalized ROR	(1,990,573)	(921,133)	(272,474)	(357,783)	(178,229)	(191,984)	(68,970)	(5,618)
43 Class COS Percentage	100.00%	46.27%	13.69%	17.97%	8.95%	9.64%	3.46%	0.00%
44								
45 Net Operating Income with Equalized ROR	1,543,223	726,460	211,616	225,816	136,723	188,789	53,820	0
46 Revenue Neutral Shift to Equalize Class ROR	(0)	41,382	1,724	(79,850)	(2,775)	45,559	(6,040)	(5,618)
47 Revenue Increase/Decrease % of Current Revenue	0.00%	2.51%	0.36%	-13.68%	-0.88%	11.96%	-4.92%	0.00%
48								
49 1/2 of Revenue Neutral Shift	(0)	20,691	862	(39,925)	(1,387)	22,779	(3,020)	(5,618)
50 Revenue Increase/Decrease Percentage	0.00%	1.26%	0.18%	-6.84%	-0.44%	5.98%	-2.46%	0.00%
51								
52 Revenue Neutral Margin Revenue	3,533,796	1,668,284	484,952	543,673	313,565	403,552	119,770	0
53 Recommended Class Revenue Percentage	100.00%	47.21%	13.72%	15.38%	8.87%	11.42%	3.39%	0.00%

Office of the Public Counsel
MAWC 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	1,363,508	896,127	240,018	5,765	13,021	94,068	23,504	91,005
2 Depreciation Expenses/TOIT Def Tax Exp	1,181,235	706,183	186,246	3,756	10,987	72,542	39,347	162,175
3 Current Income Taxes	128,013	74,450	20,018	395	1,159	8,082	4,539	19,371
4 TOTAL Expenses and Taxes	2,672,756	1,676,759	446,282	9,916	25,168	174,691	67,390	272,551
5								
6 Spread of fire expenses & taxes to others	272,551	207,182	58,329	919	6,121	0	0	(272,551)
7 TOTAL Expenses and Taxes after Spread	2,672,756	1,883,941	504,611	10,835	31,288	174,691	67,390	0
8								
9 Current Revenue								
10 Rate Revenue	3,878,080	2,766,088	738,762	21,985	46,658	181,325	103,236	26
11 Other Revenue	43,605	30,883	8,198	199	452	3,131	742	0
12 Spread of fire revenue to others	26	20	6	0	1	0	0	0
13 TOTAL Current Revenues	3,921,685	2,796,991	766,965	22,184	47,111	184,456	103,978	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	1,248,929	913,050	262,354	11,349	15,823	9,765	36,588	0
17								
18 TOTAL Rate Base	16,633,146	9,673,500	2,600,957	51,263	150,588	1,050,154	589,731	2,516,954
19								
20 Spread of fire rate base to others	2,516,954	1,913,282	538,660	8,489	56,522	0	0	(2,516,954)
21 TOTAL Rate Base after Spread	16,633,146	11,586,783	3,139,617	59,752	207,110	1,050,154	589,731	0
22								
23 Implicit Rate of Return (ROR)	7.51%	7.88%	8.36%	18.99%	7.64%	0.93%	6.20%	
24								
25 Net Operating Income with Equalized ROR	1,248,929	870,014	235,744	4,487	15,551	78,853	44,281	
26								
27 Class COS with Equalized ROR	(2,672,756)	(1,926,977)	(531,222)	(17,697)	(31,560)	(105,604)	(59,697)	
28 Class COS Percentage	100.00%	72.10%	19.88%	0.66%	1.18%	3.95%	2.23%	
29								
30 Staff/Midpoint ROR	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	
31								
32 Net Operating Income with Recommended ROR	1,286,075	895,890	242,755	4,620	16,014	81,198	45,598	
33 True-up plus add'l taxes	764,992	541,798	143,822	3,487	7,936	54,933	13,016	
34 Class COS with Staff Recommended ROR	4,723,823	3,321,629	891,188	18,942	55,238	310,822	126,004	
35 Class COS Percentage	100.00%	70.32%	18.87%	0.40%	1.17%	6.58%	2.67%	
36	802,138	524,638	124,222	(3,242)	8,127	126,366	22,026	
37								
38								
39 Current Revenue	3,921,685	2,796,991	766,965	22,184	47,111	184,456	103,978	
40 Class Percentage	100.00%	71.32%	19.56%	0.57%	1.20%	4.70%	2.65%	
41								
42 Class COS with Equalized ROR	(2,672,756)	(1,926,977)	(531,222)	(17,697)	(31,560)	(105,604)	(59,697)	
43 Class COS Percentage	100.00%	72.10%	19.88%	0.66%	1.18%	3.95%	2.23%	
44								
45 Net Operating Income with Equalized ROR	1,248,929	870,014	235,744	4,487	15,551	78,853	44,281	
46 Revenue Neutral Shift to Equalize Class ROR	0	(43,036)	(26,611)	(6,862)	(272)	69,088	7,693	
47 Revenue Increase/Decrease % of Current Revenue	0.00%	-1.54%	-3.47%	-30.93%	-0.58%	37.45%	7.40%	
48								
49 1/2 of Revenue Neutral Shift	0	(21,518)	(13,305)	(3,431)	(136)	34,544	3,846	
50 Revenue Increase/Decrease Percentage	0.00%	-0.77%	-1.73%	-15.47%	-0.29%	18.73%	3.70%	
51								
52 Revenue Neutral Margin Revenue	3,921,685	2,775,473	753,660	18,753	46,975	219,000	107,824	
53 Recommended Class Revenue Percentage	100.00%	70.77%	19.22%	0.48%	1.20%	5.58%	2.75%	

Office of the Public Counsel
MAWC Class Cost of Service Summary

St. Charles

CLASS COST OF SERVICE SUMMARY:

	TOTAL	RESIDENTIAL			COMMERCIAL			INDUSTRIAL			OTHER PUBLIC AUTHORITY			PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses	3,553,212	2,175,851	292,734	353	76,300	31,326	976,648								
2 Depreciation Expenses TOIT Def Tax Exp	2,029,455	1,288,397	166,434	199	47,409	21,143	505,874								
3 Current Income Taxes	(90,676)	(56,832)	(7,404)	(9)	(1,993)	(854)	(23,584)								
4 TOTAL Expenses and Taxes	5,491,991	3,407,416	451,764	543	121,716	51,615	1,458,938								
5															
6 Spread of fire expenses & taxes to others	1,458,938	1,040,008	264,647	227	154,056	0	(1,458,938)								
7 TOTAL Expenses and Taxes after Spread	5,491,991	4,447,424	716,410	770	275,772	51,615									
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	225,305	44,710	53	12,678	4,605	0								
12 Spread of fire revenue to others	0	0	0	0	0	0	0								
13 TOTAL Current Revenues	10,301,022	8,719,631	1,155,257	2,067	271,851	152,216	0								
14 Current Revenue Percentage	100.00%	84.65%	11.21%	0.02%	2.64%	1.48%	0.00%								
15															
16 Net OPERATING INCOME	4,809,031	4,272,206	438,846	1,298	(3,921)	100,601	0								
17															
18 TOTAL Rate Base	42,740,574	26,788,105	3,489,784	4,201	939,588	402,551	11,116,344								
19															
20 Spread of fire rate base to others	11,116,344	7,924,318	2,016,471	1,727	1,173,828	0	(11,116,344)								
21 TOTAL Rate Base after Spread	42,740,574	34,712,424	5,506,255	5,928	2,113,417	402,551									
22															
23 Implicit Rate of Return (ROR)	11.25%	12.31%	7.97%	21.89%	-0.19%	24.99%									
24															
25 Net Operating Income with Equalized ROR	4,809,031	3,905,730	619,546	667	237,795	45,294									
26															
27 Class COS with Equalized ROR	(5,491,991)	(4,813,901)	(535,711)	(1,400)	(34,056)	(106,922)									
28 Class COS Percentage	100.00%	87.65%	9.75%	0.03%	0.62%	1.95%									
29															
30 Staff Midpoint ROR	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%									
31															
32 Net Operating Income with Recommended ROR	3,304,701	2,683,965	425,744	458	163,409	31,125									
33 True-up plus add'l taxes	727,955	570,771	113,264	135	32,118	11,666									
34 Class COS with Staff Recommended ROR	9,524,647	7,702,160	1,255,419	1,363	471,299	94,406									
35 Class COS Percentage	100.00%	80.87%	13.18%	0.01%	4.95%	0.99%									
36															
37															
38															
39 Current Revenue	10,301,022	8,719,631	1,155,257	2,067	271,851	152,216									
40 Class Percentage	100.00%	84.65%	11.21%	0.02%	2.64%	1.48%									
41															
42 Class COS with Equalized ROR	(5,491,991)	(4,813,901)	(535,711)	(1,400)	(34,056)	(106,922)									
43 Class COS Percentage	100.00%	87.65%	9.75%	0.03%	0.62%	1.95%									
44															
45 Net Operating Income with Equalized ROR	4,809,031	3,905,730	619,546	667	237,795	45,294									
46 Revenue Neutral Shift to Equalize Class ROR	(0)	(366,477)	180,700	(631)	241,715	(55,307)									
47 Revenue Increase/Decrease % of Current Revenue	0.00%	-4.20%	15.64%	-30.51%	88.91%	-36.33%									
48															
49 1/2 of Revenue Neutral Shift	(0)	(183,238)	90,350	(315)	120,858	(27,654)									
50 Revenue Increase/Decrease Percentage	0.00%	-2.10%	7.82%	-15.25%	44.46%	-18.17%									
51															
52 Revenue Neutral Margin Revenue	10,301,022	8,536,392	1,245,607	1,752	392,709	124,562									
53 Recommended Class Revenue Percentage	100.00%	82.87%	12.09%	0.02%	3.81%	1.21%									

Office of the Public Counsel
MAWC 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	5,895,853	2,354,878	1,395,251	706,808	217,472	118,088	418,398	684,959
2 Depreciation Expenses/TOIT DefTax Exp	2,165,662	984,739	459,362	283,466	73,988	57,696	124,361	182,050
3 Current Income Taxes	(469,570)	(199,663)	(103,271)	(69,480)	(16,697)	(13,593)	(25,997)	(40,869)
4 TOTAL Expenses and Taxes	7,591,945	3,139,953	1,751,343	920,794	274,763	162,190	516,762	826,140
5 Spread of fire expenses & taxes to others	826,140	619,920	149,642	29,464	27,115	0	0	(826,140)
6 TOTAL Expenses and Taxes after Spread	7,591,945	3,759,873	1,900,984	950,258	301,877	162,190	516,762	0
7								
8								
9 Current Revenue								
10 Rate Revenue	13,079,049	6,956,498	2,800,242	2,214,157	465,233	291,982	350,937	0
11 Other Revenue	241,081	98,059	92,758	(1,272)	13,024	(5,460)	43,971	0
12 Spread of fire revenue to others	0	0	0	0	0	0	0	0
13 TOTAL Current Revenues	13,320,130	7,054,557	2,893,000	2,212,885	478,257	286,522	394,908	0
14 Current Revenue Percentage	100.00%	52.96%	21.72%	16.61%	3.59%	2.15%	2.96%	0.00%
15								
16 Net OPERATING INCOME	5,728,185	3,294,684	992,016	1,262,627	176,380	124,331	(121,854)	0
17 TOTAL Rate Base	38,612,001	16,417,987	8,491,775	5,713,228	1,372,967	1,117,771	2,137,687	3,360,587
18								
19 Spread of fire rate base to others	3,360,587	2,521,721	608,715	119,853	110,298	0	0	(3,360,587)
20 TOTAL Rate Base after Spread	38,612,001	18,939,707	9,100,490	5,833,080	1,483,265	1,117,771	2,137,687	0
21								
22								
23 Implicit Rate of Return (ROR)	14.84%	17.40%	10.90%	21.65%	11.89%	11.12%	-5.70%	
24								
25 Net Operating Income with Equalized ROR	5,728,185	2,809,752	1,350,080	865,352	220,046	165,824	317,131	
26								
27 Class COS with Equalized ROR	(7,591,945)	(4,244,805)	(1,542,920)	(1,347,533)	(258,211)	(120,697)	(77,777)	
28 Class COS Percentage	100.00%	55.91%	20.32%	17.75%	3.40%	1.59%	1.02%	
29								
30 Staff Midpoint ROR	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	
31								
32 Net Operating Income with Recommended ROR	2,985,480	1,464,418	703,650	451,014	114,686	86,426	165,286	
33 True-up plus add'l taxes	4,014,993	1,633,087	1,544,811	(21,180)	216,909	(90,938)	732,304	
34 Class COS with Staff Recommended ROR	14,592,418	6,857,379	4,149,445	1,380,091	633,472	157,678	1,414,352	
35 Class COS Percentage	100.00%	46.99%	28.44%	9.46%	4.34%	1.08%	9.69%	
36								
37								
38								
39 Current Revenue	13,320,130	7,054,557	2,893,000	2,212,885	478,257	286,522	394,908	
40 Class Percentage	100.00%	52.96%	21.72%	16.61%	3.59%	2.15%	2.96%	
41								
42 Class COS with Equalized ROR	(7,591,945)	(4,244,805)	(1,542,920)	(1,347,533)	(258,211)	(120,697)	(77,777)	
43 Class COS Percentage	100.00%	55.91%	20.32%	17.75%	3.40%	1.59%	1.02%	
44								
45 Net Operating Income with Equalized ROR	5,728,185	2,809,752	1,350,080	865,352	220,046	165,824	317,131	
46 Revenue Neutral Shift to Equalize Class ROR	(0)	(484,932)	358,064	(397,276)	43,666	41,493	438,985	
47 Revenue Increase/Decrease % of Current Revenue	0.00%	-6.87%	12.38%	-17.95%	9.13%	14.48%	111.16%	
48								
49 1/2 of Revenue Neutral Shift	(0)	(242,466)	179,032	(198,638)	21,833	20,746	219,492	
50 Revenue Increase/Decrease Percentage	0.00%	-3.44%	6.19%	-8.98%	4.57%	7.24%	55.58%	
51								
52 Revenue Neutral Margin Revenue	13,320,130	6,812,091	3,072,032	2,014,247	500,090	307,268	614,401	
53 Recommended Class Revenue Percentage	100.00%	51.14%	23.06%	15.12%	3.75%	2.31%	4.61%	

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	7,813,688	3,004,208	1,218,844	1,813,113	254,100	801,582	153,420	568,420
2 Depreciation Expenses/TOIT Def Tax Exp	3,935,687	1,523,683	611,339	894,826	127,705	388,702	84,608	304,823
3 Current Income Taxes	(749,165)	(284,614)	(117,573)	(174,752)	(24,630)	(76,223)	(15,291)	(56,083)
4 TOTAL Expenses and Taxes	11,000,210	4,243,277	1,712,611	2,533,188	357,175	1,114,061	222,737	817,161
5 Spread of fire expenses & taxes to others	817,161	648,036	117,423	28,905	22,796	0	0	(817,161)
6 TOTAL Expenses and Taxes after Spread	11,000,210	4,891,313	1,830,034	2,562,093	379,971	1,114,061	222,737	
7 Current Revenue								
8 Rate Revenue	21,555,734	10,814,117	4,112,671	3,597,346	754,729	2,046,577	230,294	0
9 Other Revenue	290,799	99,486	58,363	79,921	13,106	30,230	9,694	0
10 Spread of fire revenue to others	0	0	0	0	0	0	0	0
11 TOTAL Current Revenues	21,846,533	10,913,603	4,171,034	3,677,267	767,835	2,076,807	239,988	0
12 Current Revenue Percentage	100.00%	49.96%	19.09%	16.83%	3.51%	9.51%	1.10%	0.00%
13 Net OPERATING INCOME	10,846,323	6,022,290	2,341,000	1,115,173	387,864	962,745	17,251	0
14 TOTAL Rate Base	80,277,615	30,498,088	12,598,631	18,725,740	2,639,303	8,167,718	1,638,526	6,009,609
15 Spread of fire rate base to others	6,009,609	4,765,822	863,560	212,578	167,649	0	0	(6,009,609)
16 TOTAL Rate Base after Spread	80,277,615	35,263,910	13,462,191	18,938,318	2,806,952	8,167,718	1,638,526	
17 Implicit Rate of Return (ROR)	13.51%	17.08%	17.39%	5.89%	13.82%	11.79%	1.05%	
18 Net Operating Income with Equalized ROR	10,846,323	4,764,513	1,818,879	2,558,760	379,248	1,103,542	221,382	
19 Class COS with Equalized ROR	(11,000,210)	(6,149,090)	(2,352,155)	(1,118,507)	(388,587)	(973,265)	(18,607)	
20 Class COS Percentage	100.00%	55.90%	21.38%	10.17%	3.53%	8.85%	0.17%	
21 Staff Midpoint ROR	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	
22 Net Operating Income with Recommended ROR	6,207,065	2,726,606	1,040,897	1,464,311	217,034	631,528	126,691	
23 True-up plus add'l taxes	544,306	186,214	109,241	149,592	24,531	56,582	18,145	
24 Class COS with Staff Recommended ROR	17,751,581	7,804,133	2,980,172	4,175,996	621,536	1,802,172	367,573	
25 Class COS Percentage	100.00%	43.96%	16.79%	23.52%	3.50%	10.15%	2.07%	
26	(4,094,952)	(3,109,470)	(1,190,862)	498,730	(146,299)	(274,635)	127,585	
27 Current Revenue	21,846,533	10,913,603	4,171,034	3,677,267	767,835	2,076,807	239,988	
28 Class Percentage	100.00%	49.96%	19.09%	16.83%	3.51%	9.51%	1.10%	
29 Class COS with Equalized ROR	(11,000,210)	(6,149,090)	(2,352,155)	(1,118,507)	(388,587)	(973,265)	(18,607)	
30 Class COS Percentage	100.00%	55.90%	21.38%	10.17%	3.53%	8.85%	0.17%	
31 Net Operating Income with Equalized ROR	10,846,323	4,764,513	1,818,879	2,558,760	379,248	1,103,542	221,382	
32 Revenue Neutral Shift to Equalize Class ROR	0	(1,257,777)	1,818,879	2,558,760	379,248	1,103,542	221,382	
33 Revenue Increase/Decrease % of Current Revenue	0.00%	-11.52%	16.79%	23.52%	3.50%	10.15%	2.07%	
34 1/2 of Revenue Neutral Shift	0	(628,888)	909,439	1,279,380	189,624	551,771	110,691	
35 Revenue Increase/Decrease Percentage	0.00%	-5.76%	16.79%	23.52%	3.50%	10.15%	2.07%	
36 Recommended Class Revenue	21,846,533	10,284,715	3,909,974	4,399,060	763,527	2,147,205	342,053	
37 Recommended Class Revenue Percentage	100.00%	47.08%	17.90%	20.14%	3.49%	9.83%	1.57%	

Office of the Public Counsel
MAWC 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	75,486,091	62,929,505	4,267,796	4,536,135	1,143,221	2,609,435
2 Depreciation Expenses/TOIT DefTax Exp	27,806,836	23,599,789	758,873	655,323	897,985	1,894,865
3 Current Income Taxes	5,766,269	4,974,434	112,699	75,793	205,073	398,270
4 TOTAL Expenses and Taxes	109,059,196	91,503,727	5,139,368	5,267,251	2,246,279	4,902,570
5 Spread of fire expenses & taxes to	4,902,570	4,741,156	161,414	0	0	(4,902,570)
6 TOTAL Expenses and Taxes after Spread	109,059,196	96,244,884	5,300,782	5,267,251	2,246,279	
9 Current Revenue	128,811,636	110,251,590	5,569,871	5,366,135	1,494,754	6,129,287
10 Rate Revenue	1,703,696	1,477,142	95,811	100,202	30,541	0
11 Other Revenue	6,129,287	5,977,484	201,803	0	0	0
12 Spread of fire revenue to others	130,515,332	117,656,216	5,867,485	5,466,336	1,525,295	0
13 TOTAL Current Revenues	100.00%	90.15%	4.50%	4.19%	1.17%	0.00%
14 Current Revenue Percentage						
15 Net OPERATING INCOME	21,456,136	21,411,332	566,703	199,085	(720,985)	0
16 TOTAL Rate Base	419,322,280	361,740,137	8,195,440	5,511,685	14,912,867	28,962,150
17 Spread of fire rate base to others	28,962,150	28,008,589	953,561	0	0	(28,962,150)
18 TOTAL Rate Base after Spread	419,322,280	389,748,727	9,149,001	5,511,685	14,912,867	
19 Spread of fire rate base to others	5.12%	5.49%	6.19%	3.61%	-4.83%	
20 Implicit Rate of Return (ROR)						
21 Net Operating Income with Equalized ROR	21,456,136	19,942,898	468,142	282,025	763,071	
22 Class COS with Equalized ROR	(109,059,196)	(97,713,317)	(5,399,343)	(5,184,311)	(762,224)	
23 Class COS Percentage	100.00%	89.60%	4.95%	4.75%	0.70%	
24 Staff Midpoint ROR	7.732%	7.732%	7.732%	7.732%	7.732%	
25 Net Operating Income with Recommended ROR	32,421,999	30,135,372	707,401	426,164	1,153,063	
26 True-up plus add'l taxes	7,573,290	6,566,210	425,901	445,417	135,762	
27 Class COS with Staff Recommended ROR	149,054,485	132,946,465	6,434,083	6,138,832	3,535,104	
28 Class COS Percentage	100.00%	89.19%	4.32%	4.12%	2.37%	
29 Staff Midpoint ROR	18,539,153	15,290,249	566,599	672,496	2,009,809	
30 Current Revenue	130,515,332	117,656,216	5,867,485	5,466,336	1,525,295	
31 Class Percentage	100.00%	90.15%	4.50%	4.19%	1.17%	
32 Class COS with Equalized ROR	(109,059,196)	(97,713,317)	(5,399,343)	(5,184,311)	(762,224)	
33 Class COS Percentage	100.00%	89.60%	4.95%	4.75%	0.70%	
34 Net Operating Income with Equalized ROR	21,456,136	19,942,898	468,142	282,025	763,071	
35 Revenue Neutral Shift to Equalize Class ROR	0	(1,468,434)	(98,561)	82,940	1,484,055	
36 Revenue Increase/Decrease % of Current Revenue	0.00%	-1.25%	-1.68%	1.52%	97.30%	
37 1/2 of Revenue Neutral Shift	0	(734,217)	(49,281)	41,470	742,028	
38 Revenue Increase/Decrease Percentage	0.00%	-0.62%	-0.84%	0.76%	48.65%	
39 Revenue Neutral Margin Revenue	130,515,332	116,921,999	5,818,204	5,507,806	2,267,322	
40 Recommended Class Revenue Percentage	100.00%	89.58%	4.46%	4.22%	1.74%	

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	PUBLIC FIRE SERVICE
1 O & M Expenses	1,376,332	721,342	194,131	25,041	139,105	116,803	42,797	137,112
2 Depreciation Expenses/TOIT DefTax Exp	687,286	333,184	99,640	11,879	68,777	54,050	30,766	88,990
3 Current Income Taxes	170,580	77,351	24,879	2,975	17,431	14,258	8,341	25,345
4 TOTAL Expenses and Taxes	2,234,198	1,131,877	318,650	39,895	225,312	185,112	81,904	251,448
5 Spread of fire expenses & taxes to other	251,448	186,084	35,298	3,538	26,528	185,112	0	(251,448)
7 TOTAL Expenses and Taxes after Spr	2,234,198	1,317,961	353,948	43,432	251,840	185,112	81,904	0
9 Current Revenue	3,060,438	1,680,958	623,844	70,106	379,438	225,743	80,349	0
10 Rate Revenue	78,447	46,674	12,110	1,570	8,615	7,105	2,373	0
11 Other Revenue	0	0	0	0	0	0	0	0
12 Spread of fire revenue to others	3,138,885	1,727,632	635,954	71,676	388,053	232,848	82,722	0
13 TOTAL Current Revenues	100.00%	55.04%	20.26%	2.28%	12.36%	7.42%	2.64%	0.00%
14 Current Revenue Percentage								
15 Net OPERATING INCOME	904,687	409,671	282,006	28,244	136,213	47,736	818	0
16 TOTAL Rate Base	14,730,030	6,679,462	2,148,355	256,884	1,505,192	1,231,231	720,258	2,188,649
17 Spread of fire rate base to others	2,188,649	1,619,714	307,241	30,792	230,902	0	0	(2,188,649)
19 TOTAL Rate Base after Spread	14,730,030	8,299,176	2,455,597	287,676	1,736,094	1,231,231	720,258	0
20 Implicit Rate of Return (ROR)	6.14%	4.94%	11.48%	9.82%	7.85%	3.88%	0.11%	
21 Net Operating Income with Equalized ROR	904,687	509,718	150,817	17,668	106,627	75,620	44,237	
22 Class COS with Equalized ROR	(2,234,198)	(1,217,915)	(485,136)	(54,008)	(281,426)	(157,228)	(38,486)	
23 Class COS Percentage	100.00%	54.51%	21.71%	2.42%	12.60%	7.04%	1.72%	
24 Staff Midpoint ROR	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	7.732%	
25 Net Operating Income with Recommended ROR	1,138,926	641,692	189,867	22,243	134,235	95,199	55,690	
26 True-up plus add'l taxes	178,285	106,076	27,521	3,568	19,579	16,147	5,394	
27 Class COS with Staff Recommended ROR	3,551,409	2,065,729	571,336	69,244	405,653	296,458	142,989	
28 Class COS Percentage	100.00%	58.17%	16.09%	1.95%	11.42%	8.35%	4.03%	
29	412,524	338,097	(64,617)	(2,432)	17,601	63,610	60,266	
30 Current Revenue	3,138,885	1,727,632	635,954	71,676	388,053	232,848	82,722	
31 Class Percentage	100.00%	55.04%	20.26%	2.28%	12.36%	7.42%	2.64%	
32 Class COS with Equalized ROR	(2,234,198)	(1,217,915)	(485,136)	(54,008)	(281,426)	(157,228)	(38,486)	
33 Class COS Percentage	100.00%	54.51%	21.71%	2.42%	12.60%	7.04%	1.72%	
34 Net Operating Income with Equalized ROR	904,687	409,671	282,006	28,244	136,213	47,736	818	
35 Revenue Increase/Decrease % of Current Revenue	0.00%	5.79%	-20.63%	-14.75%	-7.62%	11.97%	52.49%	
36 1/2 of Revenue Neutral Shift	0	50,023	(65,594)	(5,288)	(14,793)	13,942	21,709	
37 Revenue Increase/Decrease Percentage	0.00%	2.90%	-10.31%	-7.38%	-3.81%	5.99%	26.24%	
38 Revenue Neutral Margin Revenue	3,138,885	1,777,656	570,360	66,388	373,260	246,790	104,432	
39 Recommended Class Revenue Percentage	100.00%	56.63%	18.17%	2.12%	11.89%	7.86%	3.33%	

Table 1 - Percentage of Cost at Equalized Return and Percentage of Rate Revenue by Customer Class																															
	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE																								
Jefferson City	Cost %	55.40%	29.20%	4.86%	7.67%		2.87%																								
	Revenue %	54.56%	29.58%	4.94%	8.13%		2.79%																								
Brunswick	Cost %	55.26%	14.16%	0.81%	2.19%	25.37%	2.19%																								
	Revenue %	51.72%	13.75%	0.97%	2.33%	28.66%	2.57%																								
Joplin	Cost %	55.91%	20.32%	17.75%	3.40%	1.59%	1.02%																								
	Revenue %	52.96%	21.72%	16.61%	3.59%	2.15%	2.96%																								
Mexico	Cost %	46.27%	13.69%	17.97%	8.95%	9.64%	3.46%																								
	Revenue %	46.62%	13.70%	16.51%	8.91%	10.78%	3.47%																								
Parkville	Cost %	72.10%	19.88%	0.66%	1.18%	3.95%	2.23%																								
	Revenue %	71.32%	19.56%	0.57%	1.20%	4.70%	2.65%																								
St. Charles	Cost %	87.65%	9.75%	0.03%	0.62%		1.95%																								
	Revenue %	84.65%	11.21%	0.02%	2.64%		1.48%																								
St. Joseph	Cost %	55.90%	21.38%	10.17%	3.53%	8.85%	0.17%																								
	Revenue %	49.96%	19.09%	16.83%	3.51%	9.51%	1.10%																								
Warrensburg	Cost %	54.51%	21.71%	2.42%	12.60%	7.04%	1.72%																								
	Revenue %	55.04%	20.26%	2.28%	12.36%	7.42%	2.64%																								
St. Louis	Cost %	89.60%	4.95%	4.75%			0.70%																								
	Revenue %	90.15%	4.50%	4.19%			1.17%																								
<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;"></td> <td style="width: 15%;">RES COM OPA</td> <td style="width: 15%;">INDUSTRIAL</td> <td style="width: 15%;">OTHER WATER UTILITIES</td> <td style="width: 15%;">PRIVATE FIRE</td> <td colspan="6"></td> </tr> <tr> <td></td> <td>Rate A & K</td> <td>Rate J</td> <td>Rate B, G & H</td> <td>Rate E & H</td> <td colspan="6"></td> </tr> </table>											RES COM OPA	INDUSTRIAL	OTHER WATER UTILITIES	PRIVATE FIRE								Rate A & K	Rate J	Rate B, G & H	Rate E & H						
	RES COM OPA	INDUSTRIAL	OTHER WATER UTILITIES	PRIVATE FIRE																											
	Rate A & K	Rate J	Rate B, G & H	Rate E & H																											

Table 2 - Revenue Neutral Shift to Equalize Rate of Return by Customer Class

	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER	SALES FOR	PRIVATE
					PUBLIC	RESALE	FIRE
	Shift %	Shift %	Shift %	Shift %	Authority	Rate	Service
Jefferson City	Shift %	-0.70%	1.77%	18.04%	3.61%		-47.53%
Brunswick	Shift %	4.56%	1.48%	-31.43%	-10.86%	-1.94%	-56.33%
Joplin	Shift %	-6.87%	12.38%	-17.95%	9.13%	14.48%	111.16%
Mexico	Shift %	2.51%	0.36%	-13.68%	-0.88%	11.96%	-4.92%
Parkville	Shift %	-1.54%	-3.47%	-30.93%	-0.58%	37.45%	7.40%
St. Charles	Shift %	-4.20%	15.64%	-30.51%	88.91%		-36.33%
St. Joseph	Shift %	-11.52%	-12.52%	39.26%	-1.12%	6.78%	85.06%
Warrensburg	Shift %	5.79%	-20.63%	-14.75%	-7.62%	11.97%	52.49%
St Louis	Shift %	-1.25%	-1.68%	1.52%			97.30%