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Meisenheimer/Direct

Public Counsel

WR-2007-0216

DIRECT TESTIMONY

OF

BARBARA A. MEISENHEIMER

Submitted on Behalf of the Office of the Public Counsel

Missouri-American Water Company

Case No. WR-2007-0216

June 12, 2007

OPC Exhibit No. 1
Case No(s). WR-2007-0216
Date 8-14-07 Rptr PF

**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 Service provided in Missouri)
Service Areas)

WR-2007-0216

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 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 12th day of June 2007.



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

My commission expires February 4, 2011.


Kendelle R. Stratton, Notary Public

**DIRECT TESTIMONY
OF
BARBARA A. MEISENHEIMER**

MISSOURI AMERICAN WATER COMPANY

CASE NO. WR-2007-0216

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

2 A. Barbara A. Meisenheimer, Chief Utility Economist, Office of the Public Counsel
3 (OPC or Public Counsel), P. O. Box 2230, Jefferson City, Missouri 65102. I am
4 also employed as an adjunct Economics Instructor for William Woods University.

5 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND.**

6 A. I hold a Bachelor of Science degree in Mathematics from the University of
7 Missouri-Columbia (UMC) and have completed the comprehensive exams for a
8 Ph.D. in Economics from the same institution. My two fields of study were
9 Quantitative Economics and Industrial Organization. My outside field of study
10 was Statistics. I have taught Economics courses for the following institutions:
11 University of Missouri-Columbia, William Woods University, and Lincoln
12 University. I have taught courses at both the undergraduate and graduate levels.

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

14 A. Yes, I have testified on numerous issues before the Missouri Public Service
15 Commission. (PSC or Commission)

1 indicated by Public Counsel's class cost of service study. In addition, if the
2 Commission determines that an increase in district revenue requirement is
3 necessary, then no customer class within the district should receive a net decrease
4 as the combined result of: (1) the revenue neutral shift that is applied to that class,
5 and (2) the share of the total revenue increase that is applied to that class. If the
6 Commission determines that a decrease in district revenue requirement is
7 necessary, then no customer class within the district should receive a net increase
8 as the combined result of: (1) the revenue neutral shift that is applied to that class,
9 and (2) the share of the total revenue decrease that is applied to that class.

10 With respect to shifts between districts, the Commission decided in its
11 Report and Order in WR-2000-281 to move away from single tariff pricing (a
12 single company-wide tariff that would apply to each class) and toward district
13 specific pricing. The Commission approved additional movement toward cost in
14 WR-2003-0500. I believe that the Commission's decision has merit from both an
15 economic and public policy perspective. Moving rates closer to cost reduces
16 market distortions that might otherwise arise. However, while the Commission
17 appeared to want to move toward district specific pricing, it did not mandate that
18 district specific cost be achieved in all cases or within a specific timeframe. This
19 flexibility allows for deviation from strict district specific pricing when
20 reasonably necessary based on consideration of all relevant factors.

21 **Q. HAVE YOU PERFORMED A CLASS COST OF SERVICE STUDY FOR THIS CASE?**

22 **A.** Yes. I performed a cost of service study.

Q. WHAT IS THE RESULT OF PUBLIC COUNSEL'S CLASS COST OF SERVICE STUDY?

A. Schedule BAM 1-1 through 1-9 illustrate the preliminary results of my studies. It appears that the district costs shifts and intra-district class shifts that occurred following the last rate case have brought classes closer to cost. While the Commission might decide it is appropriate to focus on aligning certain classes in certain districts, I do not believe a comprehensive adjustment is necessary in this case. For example, my studies indicate that for most districts, the Residential Class is reasonably close to its cost of service. This is also generally true for the business classes in many districts. An exception is that there appears to be significant variation in the business classes in the St. Louis District, based on my participation in the last case, I believe the differences arise primarily from incorrectly matching class costs with class revenues.

II. COST OF SERVICE STUDY

Q. WHAT ARE THE PRIMARY STEPS IN PERFORMING A COS STUDY?

A. There are three primary steps in performing a class cost of service study. These steps are functionalization, classification, and allocation of costs. Functionalization of costs means categorizing accounts by the type of function with which an account is associated. These functional categories include Source of Supply, Pumping, Water Treatment, Transmission and Distribution, Customer Accounts, and Administrative and General.

Costs are classified in a manner that allows them to be allocated based on the water industry's commonly used "Base-Extra Capacity Method." Under this method, depending on the classification with which the accounts are most closely

1 associated, costs of service are separated into four primary classes of costs: costs
2 that are related to the number of customers (customer costs), costs that are related
3 to the total quantity of water used (base costs), costs that are related to various
4 peak water usage such as peak day usage (extra capacity costs), and costs that are
5 related to fire-protection water usage (fire costs). For example, the cost of a meter
6 is generally considered a customer-related cost because the cost is incurred in
7 direct relationship to the number of customers. An example of base-related costs
8 is the chemicals cost. The amount of chemicals used in water treatment is directly
9 related to the total quantity of water used. Many plant accounts are partially base
10 load related and partially peak usage related since the plant included in many
11 accounts is sized to meet the needs of both annual water consumption and peak
12 water usage requirements.

13 Allocation factors are then developed to distribute a reasonable share of
14 costs to each customer class. These allocation factors are ratios that reflect the
15 proportion of total units (total number of customers, total annual throughput, etc.)
16 attributable to a certain customer class. Applying these ratios to the appropriate
17 cost categories produces an estimated cost for which each class is responsible.

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

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

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

2 A. For most of the Districts, consistent with the CCOS studies performed in the last
3 case, I used a Residential Class, Commercial Class, an Industrial Class, an Other
4 Public Authority Class a Resale Class and a Private Fire Class.

5 **Q. WHAT DATA IS USED AS THE BASIS FOR YOUR COS STUDY?**

6 A. Data used for this study includes MAWC workpapers filed in support of its direct
7 case, MAWC responses to Staff's data requests, Staff Accounting data and
8 materials from the OPC studies performed in the past 3 rate cases.

9 **Q. HOW DID YOU DEVELOP THE ALLOCATORS?**

10 A. The allocators were developed in order to reflect the differences in costs of
11 furnishing service to the different classes. Customer-related allocators were
12 developed using various weights to reflect the fact that there are generally greater
13 costs associated with serving a bigger customer than a smaller customer. The
14 base-related allocator was developed using the base amount of water used by each
15 class. The allocator for the fire districts was based on the number of hydrants or
16 fire taps in each of the public and private fire districts.

17 **Q. DID YOU USE AN ECONOMIES OF SCALE FACTOR TO ALLOCATE MAINS COST?**

18 A. No. Although I did rely on base use, daily use and peak use from previous OPC
19 studies, in developing the allocation factors, I did not use the square root factor
20 that produced the economies of scale effect.

1 **Q. WHAT WAS YOUR PRIMARY INTEREST IN PERFORMING THE STUDIES?**

2 A. My primary interest was to evaluate if costs differ sufficiently to warrant a
3 readjustment so soon after the past rate case and in light of the significant class
4 shifts that occurred as the result of that case.

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

6 A. Investment in source of supply was allocated based on annual water consumption
7 by rate class. This recognizes the fact that such facilities are sized to meet the
8 annual supply requirement in total, whether or not variations in daily needs are
9 experienced.

10 Pumping facilities and water treatment plant were allocated based on the capacity
11 allocators.

12 Distribution reservoir and standpipes serve principally to assist in meeting the
13 peak requirements of the system and to provide some element of system
14 reliability. These items were allocated based on regular system load and peak
15 load, with a greater weight given to the peak load. Fire mains and hydrants were
16 allocated directly to private and public fire protection services. Meters were
17 allocated based on a weighted number of meters. The weights were chosen
18 recognizing that bigger customers generally use larger size meters, and that it
19 generally costs more to buy and install a larger size meter. Other transmission
20 and distribution plant accounts were allocated utilizing the capacity allocator.

21 General plant includes office buildings, furniture and equipment, vehicles, and
22 other related items. General plant was allocated to all customer classes based on

1 the overall allocation resulting from the allocation of all other non-general plant
2 facilities.

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

4 A. Source of supply, pumping, water treatment, and transmission and distribution
5 expenses were allocated using the "expenses follow plant" principle for most
6 accounts in this category. "Expenses follow plant" basically means that for any
7 expense related to a particular rate base component, the expense should be
8 allocated in the same manner as the rate base account. For accounts 602, 623, and
9 641, the base allocator was used because the costs in these accounts tend to vary
10 with the total amount of water consumed.

11 **Q. ARE THERE OTHER OPERATION AND MAINTENANCE EXPENSES TO WHICH THE**
12 **"EXPENSES FOLLOW PLANT" PRINCIPLE DOES NOT APPLY?**

13 A. Yes. Customer account expenses were allocated based on the weighted number
14 of meters and the number of customers in each class.

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

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

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

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

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

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

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

13 **Q. PLEASE EXPLAIN THE TRADITIONAL WATER COST ALLOCATION METHOD.**

14 A. Traditionally for water utilities, the allocation of the mains cost has been
15 accomplished through a method called the base-extra capacity method. In the
16 base-extra capacity method, costs of service are usually separated into different
17 categories that are associated with different functions of a water company's
18 system. This method attempts to recognize the fact that a water system must
19 satisfy multiple functions such as providing its customers annual water usage,
20 meeting customers' rate of use requirements and ensuring the need for public fire
21 protection. Specifically, the base-extra capacity method separates costs of service

1 into four primary cost components: (1) base costs, (2) extra capacity costs, (3)
2 customer costs, (4) direct fire-protection costs.

3 **Q. PLEASE EXPLAIN THE FOUR COMPONENTS OF THE BASE-EXTRA CAPACITY**
4 **METHOD.**

5 A. Base costs are costs that tend to vary with the total quantity of water used, plus
6 those operation-and-maintenance expenses and capital costs associated with
7 service to customers under average load conditions, without the elements of cost
8 incurred to meet water use variations and resulting peaks in demand. In other
9 words, these costs are costs that would be incurred in supplying water at a perfect
10 load factor (that is, at a continuous, uniform rate), excluding costs incurred in
11 providing extra plant capacity for variation in the rate of use beyond a uniform
12 usage rate. The resulting distribution of cost responsibility for base costs is
13 simply a function of the volume of water used by each class.

14 The base-extra capacity method defines extra capacity costs as the costs
15 associated with meeting rate of use requirements in excess of average and include
16 operation-and-maintenance expenses and capital costs for system capacity beyond
17 that required for average rate of use. In other words, extra capacity costs for
18 maximum-day and maximum-hour service are incurred in providing facilities to
19 furnish water at varying rates above the average.

20 According to the base-extra capacity method, customer costs comprise
21 those costs associated with serving customers, irrespective of the amount or rate
22 of water use. Direct fire-protection costs are those costs that are applicable solely
23 to the fire-protection function.

1 When applying the base-extra capacity method, some of the costs can be
2 easily determined and directly assigned to a single function. For example, the
3 cost of fire hydrants can be determined to be 100% fire-protection costs. Also,
4 chemical costs tend to vary directly with total water usage and can be assigned
5 directly to the base cost component. Most costs of a water company's system,
6 however, can not be easily separated into the four categories, because the same
7 facility may satisfy multiple functions at the same time. Transmission and
8 distribution mains costs are a primary example of costs that can't be directly
9 assigned.

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

12 A: The first step of the base-extra capacity method is to separate costs into the four
13 primary cost components that are discussed above. Traditionally, mains costs are
14 allocated to base and maximum-hour extra capacity cost components in
15 recognition of the fact that mains provide annual water usage as well as
16 maximum-hour service to all customers. Selection of the appropriate factors for
17 allocating costs between base and extra capacity varies from analyst to analyst
18 and involves some judgement. Because mains cost is a joint cost, there is no clear
19 separation between these two cost categories. One method of determining cost
20 responsibility is to utilize the system capacity factor. Capacity factor is defined as
21 the average load in a particular period as a ratio or percentage of the maximum
22 capacity. The capacity factor is one indication of how the system load is spread
23 and whether there is a great difference between the average demand on the system
24 and the demand at peak. A small capacity factor indicates a small average usage
25 relative to the maximum demand and thus less cost should be allocated to the base

1 cost component and more cost should be allocated to the extra capacity cost
2 component.

3 **Q. ACCORDING TO THE BASE-EXTRA CAPACITY METHOD, WHAT IS THE SECOND**
4 **STEP OF ALLOCATING MAINS COST?**

5 A. The second step of the base-extra capacity method is to distribute costs among
6 customer classes. Class cost responsibilities are determined based on different
7 usage characteristics or proportions of total system usage for each cost
8 component. Generally, the base cost component is distributed to different classes
9 based on each class's share of the total water usage. The extra-capacity cost
10 component is distributed to each class based on peaking requirements on the
11 system.

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

13 A. Yes.

Office of the Public Counsel
MAWC 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	448,417	210,795	55,345	1,241	8,055	165,134	1,957	5,890
2	Depreciation Expenses	80,606	40,203	9,569	179	1,205	24,717	698	4,036
3	TOIT Def Tax Exp								
4	Current Income Taxes	(159,271)	(79,999)	(18,709)	(338)	(2,312)	(47,346)	(1,550)	(9,017)
5	TOTAL Expenses and Taxes	369,752	170,998	46,206	1,082	6,948	142,504	1,105	909
6	Spread public fire expenses & taxes to others	15 909	744	149	4	12	0	0	-
7	TOTAL Expenses and Taxes after Spread	369,752	171,742	46,355	1,086	6,960	142,504	1,105	-
8									
9	Current Revenue								
10	Rate Revenue	133,662	99,879	24,813	523	3,682	1	4,764	0
11	Other Revenue	25 210	104	26	1	4	74	1	0
12	TOTAL Current Revenues	133,872	99,983	24,839	524	3,686	75	4,765	0
13	Current Revenue Percentage	100.00%	74.69%	18.55%	0.39%	2.75%	0.06%	3.56%	0.00%
14									
15	Net OPERATING INCOME	(235,880)	(71,759)	(21,515)	(562)	(3,274)	(142,430)	3,660	0
16									
17	TOTAL Rate Base	1,556,347	781,729	182,816	3,301	22,592	462,652	15,149	88,108
18									
19	Spread public fire rate base to others	15 88,108	72,106	14,460	386	1,157	0	0	(88,108)
20	TOTAL Rate Base after Spread	1,556,347	853,835	197,275	3,687	23,749	462,652	15,149	-
21									
22	Implicit Rate of Return (ROR)	-15.16%	-8.40%	-10.91%	-15.25%	-13.79%	-30.79%	24.16%	
23									
24	Net Operating Income with Equalized ROR	(235,880)	(129,407)	(29,899)	(559)	(3,599)	(70,120)	(2,296)	
25									
26	Class COS with Equalized ROR	529,023	244,438	64,110	1,787	8,725	214,815	(4,851)	
27	Class COS Percentage	100.00%	46.21%	12.12%	0.34%	1.65%	40.61%	-0.92%	
28									
29	Staff Midpoint ROR	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	
30									
31	Net Operating Income with Recommended ROR	99,606	54,645	12,626	236	1,520	29,610	970	
32	True-up plus add'l taxes	25 213,630	106,227	26,898	580	3,725	75,001	1,200	
33	Class COS with Staff Recommended ROR	682,988	332,614	85,878	1,902	12,204	247,115	3,274	
34	Class COS Percentage	100.00%	48.70%	12.57%	0.28%	1.79%	36.18%	0.48%	
35		549,116	232,631	61,039	1,378	8,519	247,040	(1,491)	
36									
37									
38	Current Revenue	133,872	99,983	24,839	524	3,686	75	4,765	
39	Class Percentage	100.00%	74.69%	18.55%	0.39%	2.75%	0.06%	3.56%	
40									
41	Class COS with Equalized ROR	529,023	244,438	64,110	1,787	8,725	214,815	(4,851)	
42	Class COS Percentage	100.00%	46.21%	12.12%	0.34%	1.65%	40.61%	-0.92%	
43									
44	Net Operating Income with Equalized ROR	(235,880)	(129,407)	(29,899)	(559)	(3,599)	(70,120)	(2,296)	
45	Revenue Neutral Shift to Equalize Class ROR	(0)	(57,649)	(8,384)	4	(325)	72,310	(5,956)	
46	Revenue Increase/Decrease % of Current Revenue	0.00%	-57.66%	-33.75%	0.69%	-8.83%	96766.60%	-124.99%	
47									
48	1/2 of Revenue Neutral Shift	(0)	(28,824)	(4,192)	2	(163)	36,155	(2,978)	
49	Revenue Increase/Decrease Percentage	0.00%	-28.83%	-16.88%	0.34%	-4.41%	48383.30%	-62.50%	
50									
51	Revenue Neutral Margin Revenue	133,872	71,159	20,648	525	3,523	36,230	1,787	
52	Recommended Class Revenue Percentage	100.00%	53.15%	15.42%	0.39%	2.63%	27.06%	1.33%	

Office Of Public Counsel
MAWC Class Cost of Service Summary

Jefferson City District

CLASS COST OF SERVICE SUMMARY:

		TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RETAIL	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1	O & M Expenses	3,018,341	1,529,778	1,130,430	164,400	115,562	0	15,456	62,714
2	Depreciation Expenses/TOIT Def Tax Exp	800,029	370,955	305,795	44,771	17,526	0	9,388	51,593
3	Taxes	(13,661)	(6,258)	(5,291)	(776)	(267)	0	(159)	(910)
4	TOTAL Expenses and Taxes	3,804,709	1,894,475	1,430,935	208,395	132,821	-	24,685	113,397
5									
6	Spread public fire expenses & taxes to others	15 113,397	0	109,791	902	2,705	0	0	(113,397)
7	TOTAL Expenses and Taxes after Spread	3,804,709	1,894,475	1,540,726	209,297	135,526	-	24,685	-
8									
9	Current Revenue								
10	Rate Revenue	4,123,965	2,223,984	1,213,984	207,424	364,528	0	114,045	0
11	Other Revenue	25 27,334	13,982	10,653	1,552	951	0	195	0
12	TOTAL Current Revenues	4,151,299	2,237,966	1,224,637	208,976	365,479	0	114,240	0
13	Current Revenue Percentage	100.00%	53.91%	29.50%	5.03%	8.80%	0.00%	2.75%	0.00%
14									
15	NET OPERATING INCOME	346,590	343,491	(316,089)	(321)	229,953	0	89,555	0
16									
17	TOTAL Rate Base	12,326,935	5,646,985	4,773,912	700,315	240,833	-	143,829	821,061
18									
19	Spread public fire rate base to others	15 821,061	0	794,951	6,527	19,582	0	0	(821,061)
20	TOTAL Rate Base after Spread	12,326,935	5,646,985	5,568,864	706,843	260,415	-	143,829	-
21									
22	Implicit Rate of Return (ROR)	2.81%	6.08%	-5.68%	-0.05%	88.30%	0.00%	62.26%	
23									
24	Net Operating Income with Equalized ROR	346,590	158,773	156,577	19,874	7,322	-	4,044	
25	Plus Current Taxes	13,661	0	13,227	109	326	0	0	0
26	Class COS with Equalized ROR	3,818,370	1,709,757	2,026,618	229,600	(86,780)	-	(60,826)	
27	Class COS Percentage	100.00%	44.78%	53.08%	6.01%	-2.27%	0.00%	-1.59%	
28									
29	Staff Midpoint ROR	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	
30									
31	Net Operating Income with Recommended ROR	788,924	361,407	356,407	45,238	16,667	-	9,205	
32	True-up plus add'l taxes	25 475,911	243,447	185,476	27,024	16,561	0	3,403	
33	Class COS with Staff Recommended ROR	5,069,544	2,499,329	2,082,609	281,559	168,753	-	37,293	
34	Class COS Percentage	100.00%	49.30%	41.08%	5.55%	3.33%	0.00%	0.74%	
35		918,245	261,363	857,972	72,583	(196,726)	-	(76,947)	
36									
37									
38	Current Revenue	4,151,299	2,237,966	1,224,637	208,976	365,479	0	114,240	
39	Class Percentage	100.00%	53.91%	29.50%	5.03%	8.80%	0.00%	2.75%	
40									
41	Class COS with Equalized ROR	3,818,370	1,709,757	2,026,618	229,600	(86,780)	-	(60,826)	
42	Class COS Percentage	100.00%	44.78%	53.08%	6.01%	-2.27%	0.00%	-1.59%	
43									
44	Net Operating Income with Equalized ROR	346,590	158,773	156,577	19,874	7,322	-	4,044	
45	Revenue Neutral Shift to Equalize Class ROR	(0)	(184,718)	472,666	20,195	(222,631)	0	(85,511)	
46	Revenue Increase/Decrease % of Current Revenue	0.00%	-8.25%	38.60%	9.66%	-60.91%	0.00%	-74.85%	
47									
48	1/2 of Revenue Neutral Shift	(0)	(92,359)	236,333	10,097	(111,316)	0	(42,756)	
49	Revenue Increase/Decrease Percentage	0.00%	-4.13%	19.30%	4.83%	-30.46%	0.00%	-37.43%	
50									
51	Revenue Neutral Margin Revenue	4,151,299	2,145,607	1,460,970	219,074	254,163	0	71,485	
52	Recommended Class Revenue Percentage	100.00%	51.69%	35.19%	5.28%	6.12%	0.00%	1.72%	

Office of the Public Counsel
MAWC Class Cost of Service Summary

Joplin 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	5,526,037	2,467,007	1,100,940	1,223,179	146,354	349,523	33,752	205,282
2	Depreciation Expenses	2,267,837	1,073,165	415,844	421,858	46,470	131,033	28,849	150,618
3	Taxes	(332,540)	(147,590)	(62,351)	(65,618)	(7,051)	(20,612)	(4,441)	(24,878)
4	TOTAL Expenses and Taxes	7,461,334	3,392,582	1,454,433	1,579,418	185,773	459,944	58,161	331,022
5									
6	Spread public fire expenses & taxes to others	15 331,022	283,604	43,961	1,293	2,164	0	0	(331,022)
7	TOTAL Expenses and Taxes after Spread	7,461,334	3,676,187	1,498,394	1,580,711	187,937	459,944	58,161	-
8									
9	Current Revenue								
10	Rate Revenue	7,598,527	3,930,228	1,702,662	1,362,141	189,072	203,363	211,051	10
11	Other Revenue	25 243,148	115,745	49,580	53,757	6,299	15,711	2,055	0
12	TOTAL Current Revenues	7,841,675	4,045,973	1,752,242	1,415,898	195,371	219,074	213,106	10
13	Current Revenue Percentage	100.00%	51.60%	22.35%	18.06%	2.49%	2.79%	2.72%	0.00%
14									
15	NET OPERATING INCOME	380,341	369,786	253,848	(164,812)	7,434	(240,870)	154,945	10
16									
17	TOTAL Rate Base	33,874,132	15,034,206	6,351,351	6,684,207	718,207	2,099,603	452,346	2,534,213
18									
19	Spread public fire rate base to others	15 2,534,213	2,171,197	336,553	9,895	16,566	0	0	(2,534,213)
20	TOTAL Rate Base after Spread	33,874,132	17,205,403	6,687,904	6,694,103	734,773	2,099,603	452,346	-
21									
22	Implicit Rate of Return (ROR)	1.12%	2.15%	3.80%	-2.46%	1.01%	-11.47%	34.25%	
23									
24	Net Operating Income with Equalized ROR	380,341	193,183	75,092	75,162	8,250	23,574	5,079	
25	Plus Current Taxes	15 332,540	284,905	44,163	1,298	2,174	0	0	
26	Class COS with Equalized ROR	7,793,884	3,784,489	1,363,801	1,821,983	190,927	724,389	(91,705)	
27	Class COS Percentage	100.00%	48.56%	17.50%	23.38%	2.45%	9.29%	-1.18%	
28									
29	Staff Midpoint ROR	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	
30									
31	Net Operating Income with Recommended ROR	2,167,944	1,101,146	428,026	428,423	47,025	134,375	28,950	
32	True-up plus add'l taxes	25 386,899	184,174	78,892	85,539	10,023	25,000	3,270	
33	Class COS with Staff Recommended ROR	10,016,177	4,961,507	2,005,312	2,094,673	244,986	619,319	90,381	
34	Class COS Percentage	100.00%	49.53%	20.02%	20.91%	2.45%	6.18%	0.90%	
35		2,222,293	1,177,017	641,512	272,689	54,059	(105,070)	182,087	
36									
38	Current Revenue	7,841,675	4,045,973	1,752,242	1,415,898	195,371	219,074	213,106	
39	Class Percentage	100.00%	51.60%	22.35%	18.06%	2.49%	2.79%	2.72%	
40									
41	Class COS with Equalized ROR	7,793,884	3,784,489	1,363,801	1,821,983	190,927	724,389	(91,705)	
42	Class COS Percentage	100.00%	48.56%	17.50%	23.38%	2.45%	9.29%	-1.18%	
43									
44	Net Operating Income with Equalized ROR	380,341	193,183	75,092	75,162	8,250	23,574	5,079	
45	Revenue Neutral Shift to Equalize Class ROR	10	(176,603)	(178,756)	239,974	816	264,445	(149,866)	
46	Revenue Increase/Decrease % of Current Revenue	0.00%	-4.36%	-10.20%	16.95%	0.42%	120.71%	-70.32%	
47									
48	1/2 of Revenue Neutral Shift	5	(88,301)	(89,378)	119,987	408	132,222	(74,933)	
49	Revenue Increase/Decrease Percentage	0.00%	-2.18%	-5.10%	8.47%	0.21%	60.36%	-35.16%	
50									
51	Revenue Neutral Margin Revenue	7,841,670	3,957,671	1,662,864	1,535,886	195,779	351,296	138,173	
52	Recommended Class Revenue Percentage	100.00%	50.47%	21.21%	19.59%	2.50%	4.48%	1.76%	

Office of the Public Counsel
MAWC Class Cost of Service Summary

Mexico 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	1,434,079	645,387	190,381	207,606	126,167	194,041	10,922	59,574
2	Depreciation Expenses/TOIT Def Tax Exp	552,980	267,006	70,013	72,819	40,122	69,291	5,487	28,242
3	Taxes	90,558	42,857	11,561	12,200	6,661	11,699	872	4,707
4	TOTAL Expenses and Taxes	2,077,617	955,251	271,956	292,625	172,950	275,032	17,281	92,523
5									
6	Spread public fire expenses & taxes to others	15 92,523	81,279	8,976	419	1,849	0	0	(92,523)
7	TOTAL Expenses and Taxes after Spread	2,077,617	1,036,530	280,932	293,044	174,799	275,032	17,281	-
8									
9	Current Revenue								
10	Rate Revenue	2,535,447	1,222,378	341,011	374,721	194,675	314,090	88,572	0
11	Other Revenue	25 48,843	23,677	6,669	7,148	4,165	6,745	439	0
12	TOTAL Current Revenues	2,584,290	1,246,055	347,680	381,869	198,840	320,835	89,011	0
13	Current Revenue Percentage	100.00%	48.22%	13.45%	14.78%	7.69%	12.41%	3.44%	0.00%
14									
15	NET OPERATING INCOME	506,673	209,524	66,749	88,825	24,042	45,803	71,730	0
16	(2) 35,615								
17	TOTAL Rate Base	12,633,884	5,979,111	1,612,902	1,701,976	929,237	1,632,207	121,708	656,743
18									
19	Spread public fire rate base to others	15 656,743	576,933	63,713	2,976	13,121	0	0	(656,743)
20	TOTAL Rate Base after Spread	12,633,884	6,556,044	1,676,615	1,704,952	942,358	1,632,207	121,708	-
21									
22	Implicit Rate of Return (ROR)	4.01%	3.20%	3.98%	5.21%	2.55%	2.81%	58.94%	
23									
24	Net Operating Income with Equalized ROR	506,673	262,926	67,239	68,376	37,793	65,459	4,881	
25	Plus Current Taxes	15 (90,558)	(79,553)	(8,785)	(410)	(1,809)	0	0	
26	Class COS with Equalized ROR	1,987,059	1,010,378	272,637	272,184	186,741	294,688	(49,568)	
27	Class COS Percentage	100.00%	50.85%	13.72%	13.70%	9.40%	14.83%	-2.49%	
28									
29	Staff Midpoint ROR	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	
30									
31	Net Operating Income with Recommended ROR	808,569	419,587	107,303	109,117	60,311	104,461	7,789	
32	True-up plus add'l taxes	25 544,243	263,824	74,311	79,651	46,413	75,153	4,892	
33	Class COS with Staff Recommended ROR	3,430,429	1,719,941	462,546	481,812	281,522	454,646	29,962	
34	Class COS Percentage	100.00%	50.14%	13.48%	14.05%	8.21%	13.25%	0.87%	
35		1,443,370	709,562	189,909	209,628	94,782	159,958	79,530	
36									
37									
38	Current Revenue	2,584,290	1,246,055	347,680	381,869	198,840	320,835	89,011	
39	Class Percentage	100.00%	48.22%	13.45%	14.78%	7.69%	12.41%	3.44%	
40									
41	Class COS with Equalized ROR	1,987,059	1,010,378	272,637	272,184	186,741	294,688	(49,568)	
42	Class COS Percentage	100.00%	50.85%	13.72%	13.70%	9.40%	14.83%	-2.49%	
43									
44	Net Operating Income with Equalized ROR	506,673	262,926	67,239	68,376	37,793	65,459	4,881	
45	Revenue Neutral Shift to Equalize Class ROR	0	53,401	491	(20,450)	13,751	19,656	(66,849)	
46	Revenue Increase/Decrease % of Current Revenue	0.00%	4.29%	0.14%	-5.36%	6.92%	6.13%	-75.10%	
47									
48	1/2 of Revenue Neutral Shift	0	26,701	245	(10,225)	6,876	9,828	(33,425)	
49	Revenue Increase/Decrease Percentage	0.00%	2.14%	0.07%	-2.68%	3.46%	3.06%	-37.55%	
50									
51	Revenue Neutral Margin Revenue	2,584,290	1,272,755	347,926	371,645	205,716	330,662	55,586	
52	Recommended Class Revenue Percentage	100.00%	49.25%	13.46%	14.38%	7.96%	12.80%	2.15%	

Office of the Public Counsel
MAWC Class Cost of Service Summary

Parkville 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	1,232,581	803,310	200,902	8,015	43,489	105,359	11,065	60,442
2	Depreciation Expenses TOIT Def Tax Exp	883,263	504,474	185,268	3,865	22,946	70,990	14,358	81,362
3	Taxes	271,698	155,917	54,219	1,199	7,223	22,908	4,272	25,960
4	TOTAL Expenses and Taxes	2,387,542	1,463,701	440,389	13,078	73,658	199,257	29,695	167,764
5									
6	Spread public fire expenses & taxes to others	15 167,764	154,603	10,701	399	2,060	0	0	(167,764)
7	TOTAL Expenses and Taxes after Spread	2,387,542	1,618,304	451,090	13,477	75,719	199,257	29,695	-
8									
9	Current Revenue								
10	Rate Revenue	3,161,898	2,270,945	578,465	21,371	47,177	159,291	84,624	25
11	Other Revenue	25 37,780	24,691	7,696	213	1,217	3,421	542	0
12	TOTAL Current Revenues	3,199,678	2,295,636	586,161	21,584	48,394	162,712	85,166	25
13	Current Revenue Percentage	100.00%	71.75%	18.32%	0.67%	1.51%	5.09%	2.66%	0.00%
14									
15	NET OPERATING INCOME	812,136	677,332	135,070	8,107	(27,324)	(36,545)	55,471	25
16	(305,465) 35,615								
17	TOTAL Rate Base	12,176,352	6,987,519	2,429,857	53,730	323,716	1,026,631	191,467	1,163,432
18									
19	Spread public fire rate base to others	15 1,163,432	1,072,165	74,213	2,766	14,289	0	0	(1,163,432)
20	TOTAL Rate Base after Spread	12,176,352	8,059,683	2,504,070	56,496	338,005	1,026,631	191,467	-
21									
22	Implicit Rate of Return (ROR)	6.67%	8.40%	5.39%	14.35%	-8.08%	-3.56%	28.97%	
23									
24	Net Operating Income with Equalized ROR	812,136	537,563	167,016	3,768	22,544	68,474	12,770	
25	Plus Current Taxes	15 (271,698)							
26	Class COS with Equalized ROR	2,387,567	1,478,535	483,036	9,138	125,587	304,275	(13,005)	
27	Class COS Percentage	100.00%	61.93%	20.23%	0.38%	5.26%	12.74%	-0.54%	
28									
29	Staff Midpoint ROR	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	
30									
31	Net Operating Income with Recommended ROR	779,287	515,820	160,260	3,616	21,632	65,704	12,254	
32	True-up plus add'l taxes	25 746,530	487,890	152,064	4,209	24,057	67,596	10,715	
33	Class COS with Staff Recommended ROR	3,913,359	2,622,013	763,415	21,301	121,408	332,557	52,664	
34	Class COS Percentage	100.00%	67.00%	19.51%	0.54%	3.10%	8.50%	1.35%	
35		1,525,792	1,143,478	280,379	12,163	(4,179)	28,282	65,669	
36									
37									
38	Current Revenue	3,199,678	2,295,636	586,161	21,584	48,394	162,712	85,166	
39	Class Percentage	100.00%	71.75%	18.32%	0.67%	1.51%	5.09%	2.66%	
40									
41	Class COS with Equalized ROR	2,387,567	1,478,535	483,036	9,138	125,587	304,275	(13,005)	
42	Class COS Percentage	100.00%	61.93%	20.23%	0.38%	5.26%	12.74%	-0.54%	
43									
44	Net Operating Income with Equalized ROR	812,136	537,563	167,016	3,768	22,544	68,474	12,770	
45	Revenue Neutral Shift to Equalize Class ROR	25 25	(139,769)	31,946	(4,339)	49,869	105,019	(42,700)	
46	Revenue Increase/Decrease % of Current Revenue	0.00%	-6.09%	5.45%	-20.10%	103.05%	64.54%	-50.14%	
47									
48	1/2 of Revenue Neutral Shift	12	(69,884)	15,973	(2,169)	24,934	52,509	(21,350)	
49	Revenue Increase/Decrease Percentage	0.00%	-3.04%	2.73%	-10.05%	51.52%	32.27%	-25.07%	
50									
51	Revenue Neutral Margin Revenue	3,199,666	2,225,751	602,133	19,415	73,329	215,221	63,816	
52	Recommended Class Revenue Percentage	100.00%	69.56%	18.82%	0.61%	2.29%	6.73%	1.99%	

Office of the Public Counsel
MAWC Class Cost of Service Summary

St Charles 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		3,632,934	2,945,554	319,685	1,293	54,137	0	37,506	274,758
2	Depreciation Expenses/TOIT Def Tax Exp		2,001,331	1,535,034	163,504	548	22,994	0	28,393	250,858
3	Taxes		1,073,713	814,784	95,131	325	13,483	0	15,540	134,451
4	TOTAL Expenses and Taxes		6,707,978	5,295,373	578,320	2,165	90,614	0	81,439	660,067
5										
6	Spread public fire expenses & taxes to others	15	660,067	637,398	21,128	47	1,494	0	0	(660,067)
7	TOTAL Expenses and Taxes after Spread		6,707,978	5,932,771	599,448	2,213	92,108		81,439	-
8										
9	Current Revenue									
10	Rate Revenue		9,148,141	7,895,445	951,030	2,427	165,921	0	133,318	0
11	Other Revenue	25	292,321	255,305	28,398	104	4,328		4,186	0
12	TOTAL Current Revenues		9,440,462	8,150,750	979,428	2,531	170,249		137,504	0
13	Current Revenue Percentage		100.00%	86.34%	10.37%	0.03%	1.80%		1.46%	0.00%
14										
15	NET OPERATING INCOME		2,732,484	2,217,979	379,980	318	78,141	0	56,065	0
16	(2,225,813)	35,615								
17	TOTAL Rate Base		38,775,303	29,424,522	3,435,475	11,729	486,916	-	561,186	4,855,476
18										
19	Spread public fire rate base to others	15	4,855,476	4,688,720	155,419	349	10,989	0	0	(4,855,476)
20	TOTAL Rate Base after Spread		38,775,303	34,113,241	3,590,893	12,078	497,905		561,186	-
21										
22	Implicit Rate of Return (ROR)		7.05%	6.50%	10.58%	2.63%	15.69%		9.99%	
23	163									
24	Net Operating Income with Equalized ROR		2,732,484	2,403,950	253,049	851	35,087	-	39,547	
25	Plus Current Taxes	15	(1,073,713)							
26	Class COS with Equalized ROR		6,707,978	6,118,741	472,517	2,746	49,054	-	64,920	
27	Class COS Percentage		100.00%	91.22%	7.04%	0.04%	0.73%	0.00%	0.97%	
28										
29	Staff Midpoint ROR		6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	
30	163									
31	Net Operating Income with Recommended ROR		2,481,619	2,183,247	229,817	773	31,866	-	35,916	
32	True-up plus add'l taxes	25	1,147,977	1,002,612	111,523	407	16,995		16,440	
33	Class COS with Staff Recommended ROR		10,337,574	9,118,630	940,788	3,392	140,969	-	133,795	
34	Class COS Percentage		100.00%	88.21%	9.10%	0.03%	1.36%	0.00%	1.29%	
35			3,629,596	2,999,889	468,271	647	91,915	-	68,875	
36										
37										
38	Current Revenue		9,440,462	8,150,750	979,428	2,531	170,249	0	137,504	
39	Class Percentage		100.00%	86.34%	10.37%	0.03%	1.80%	0.00%	1.46%	
40										
41	Class COS with Equalized ROR		6,707,978	6,118,741	472,517	2,746	49,054	-	64,920	
42	Class COS Percentage		100.00%	91.22%	7.04%	0.04%	0.73%	0.00%	0.97%	
43										
44	Net Operating Income with Equalized ROR		2,732,484	2,403,950	253,049	851	35,087	-	39,547	
45	Revenue Neutral Shift to Equalize Class ROR		0	185,971	(126,931)	533	(43,054)		(16,519)	
46	Revenue Increase/Decrease % of Current Revenue		0.00%	2.28%	-12.96%	21.07%	-25.29%		-12.01%	
47										
48	1/2 of Revenue Neutral Shift		0	92,985	(63,466)	267	(21,527)	0	(8,259)	
49	Revenue Increase/Decrease Percentage		0.00%	1.14%	-6.48%	10.53%	-12.64%		-6.01%	
50										
51	Revenue Neutral Margin Revenue		9,440,462	8,243,735	915,963	2,797	148,722	0	129,245	
52	Recommended Class Revenue Percentage		100.00%	87.32%	9.70%	0.03%	1.58%	0.00%	1.37%	

Office of the Public Counsel
MAWC Class Cost of Service Summary

St Joseph 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	7,789,711	3,595,398	1,430,546	1,229,834	343,620	912,544	34,806	242,962
2	Depreciation Expenses TOIT Def Tax Exp	3,897,129	1,683,337	712,735	632,563	159,920	484,200	28,541	195,831
3	Taxes	433,466	181,863	80,526	72,412	18,178	55,588	3,152	21,747
4	TOTAL Expenses and Taxes	12,120,306	5,460,598	2,223,808	1,934,809	521,718	1,452,333	66,500	460,540
5									
6	Spread public fire expenses & taxes to others	15 460,540	410,026	45,625	2,079	2,810	0	0	(460,540)
7	TOTAL Expenses and Taxes after Spread	12,120,306	5,870,624	2,269,433	1,936,887	524,529	1,452,333	66,500	-
8									
9	Current Revenue								
10	Rate Revenue	15 15,142,852	7,577,212	2,772,889	2,207,747	583,103	1,827,213	174,687	1
11	Other Revenue	25 292,119	135,208	56,005	49,068	13,032	37,019	1,788	0
12	TOTAL Current Revenues	15,434,971	7,712,420	2,828,894	2,256,815	596,135	1,864,232	176,475	1
13	Current Revenue Percentage	100.00%	49.97%	18.33%	14.62%	3.86%	12.08%	1.14%	0.00%
14									
15	NET OPERATING INCOME	3,314,665	1,841,795	559,461	319,927	71,606	411,899	109,975	1
16	(2,807,994)	35,615							
17	TOTAL Rate Base	80,250,069	33,669,350	14,908,280	13,405,975	3,365,385	10,291,393	583,578	4,026,108
18									
19	Spread public fire rate base to others	15 4,026,108	3,584,507	398,862	18,171	24,569	0	0	(4,026,108)
20	TOTAL Rate Base after Spread	80,250,069	37,253,857	15,307,141	13,424,146	3,389,954	10,291,393	583,578	-
21									
22	Implicit Rate of Return (ROR)	4.13%	4.94%	3.65%	2.38%	2.11%	4.00%	18.84%	
23									
24	Net Operating Income with Equalized ROR	3,314,665	1,538,741	632,249	554,474	140,019	425,078	24,104	
25	Plus Current Taxes	15 (433,466)							
26	Class COS with Equalized ROR	12,120,307	5,567,569	2,342,221	2,171,434	592,942	1,465,512	(19,371)	
27	Class COS Percentage	100.00%	45.94%	19.32%	17.92%	4.89%	12.09%	-0.16%	
28									
29	Staff Midpoint ROR	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	
30									
31	Net Operating Income with Recommended ROR	5,136,004	2,384,247	979,657	859,145	216,957	658,649	37,349	
32	True-up plus add'l taxes	1,860,301	861,042	356,656	312,477	82,993	235,748	11,385	
33	Class COS with Staff Recommended ROR	19,116,611	9,115,913	3,605,746	3,108,509	824,479	2,346,730	115,234	
34	Class COS Percentage	100.00%	47.69%	18.86%	16.26%	4.31%	12.28%	0.60%	
35		6,996,304	3,548,343	1,263,525	937,076	231,537	881,218	134,605	
36									
37									
38	Current Revenue	15,434,971	7,712,420	2,828,894	2,256,815	596,135	1,864,232	176,475	
39	Class Percentage	100.00%	49.97%	18.33%	14.62%	3.86%	12.08%	1.14%	
40									
41	Class COS with Equalized ROR	12,120,307	5,567,569	2,342,221	2,171,434	592,942	1,465,512	(19,371)	
42	Class COS Percentage	100.00%	45.94%	19.32%	17.92%	4.89%	12.09%	-0.16%	
43									
44	Net Operating Income with Equalized ROR	3,314,665	1,538,741	632,249	554,474	140,019	425,078	24,104	
45	Revenue Neutral Shift to Equalize Class ROR	1	(303,055)	72,788	234,546	68,413	13,179	(85,871)	
46	Revenue Increase/Decrease % of Current Revenue	0.00%	-3.93%	2.57%	10.39%	11.48%	0.71%	-48.66%	
47									
48	1/2 of Revenue Neutral Shift	1	(151,527)	36,394	117,273	34,206	6,589	(42,935)	
49	Revenue Increase/Decrease Percentage	0.00%	-1.96%	1.29%	5.20%	5.74%	0.35%	-24.33%	
50									
51	Revenue Neutral Margin Revenue	15,434,971	7,560,892	2,865,288	2,374,088	630,342	1,870,821	133,539	
52	Recommended Class Revenue Percentage	100.00%	48.99%	18.56%	15.38%	4.08%	12.12%	0.87%	

Office of the Public Counsel
MAWC Class Cost of Service Summary
WR-2003-0500

St. Louis District

CLASS COST OF SERVICE SUMMARY:

		TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE
1	O & M Expenses	63,871,328	51,388,870	2,467,572	7,131,868	305,349	2,577,670
2	Depreciation Expenses/TOIT Def Tax Exp	23,826,499	18,274,919	788,598	2,598,821	121,027	2,043,134
3	Taxes	8,167,020	6,242,487	264,481	906,609	45,442	708,000
4	TOTAL Expenses and Taxes	95,864,847	75,906,276	3,520,650	10,637,298	471,818	5,328,804
5							
6	Spread public fire expenses & taxes to	15	0	0	0	0	0
7	TOTAL Expenses and Taxes after Spread	95,864,847	75,906,276	3,520,650	10,637,298	471,818	5,328,804
8							
9	Current Revenue		98,414,824	2,158,918	8,245,315	1,212,727	5,928,672
10	Rate Revenue	113,812,590	77,620,976	23,290,224	6,219,171	711,978	5,970,241
11	Other Revenue	25	7,607,639	5,980,297	272,561	843,838	472,462
12	TOTAL Current Revenues	121,420,229	83,601,273	23,562,785	7,063,009	750,459	6,442,703
13	Current Revenue Percentage	100.00%	68.85%	19.41%	5.82%	0.62%	5.31%
14							
15	NET OPERATING INCOME	25,555,382	7,694,997	20,042,135	(3,574,289)	278,641	1,113,898
16							
17	TOTAL Rate Base	360,679,658	275,686,623	11,680,265	40,038,533	2,006,854	31,267,384
18							
19	Spread public fire rate base to others	15	0	0	0	0	0
20	TOTAL Rate Base after Spread	360,679,658	275,686,623	11,680,265	40,038,533	2,006,854	31,267,384
21							
22	Implicit Rate of Return (ROR)	7.09%	2.79%	171.59%	-8.93%	13.88%	3.56%
23							
24	Net Operating Income with Equalized ROR	25,555,382	19,533,336	827,587	2,836,866	142,192	2,215,401
25	Plus Current Taxes	15	(8,167,020)				
26	Class COS with Equalized ROR	95,864,847	87,744,615	(15,693,898)	17,048,454	335,370	6,430,306
27	Class COS Percentage	100.00%	91.53%	-16.37%	17.78%	0.35%	6.71%
28							
29	Staff Midpoint ROR	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%
30							
31	Net Operating Income with Recommended ROR	23,083,498	17,643,944	747,537	2,562,466	128,439	2,001,113
32	True-up plus add'l taxes	25	9,978,850	7,844,285	357,516	1,106,852	619,722
33	Class COS with Staff Recommended ROR	128,927,195	101,394,505	4,625,703	14,306,616	650,732	7,949,639
34	Class COS Percentage	100.00%	78.64%	3.59%	11.10%	0.50%	6.17%
35		33,062,348	13,649,890	20,319,601	(2,741,837)	315,362	1,519,333
36							
37							
38	Current Revenue	121,420,229	83,601,273	23,562,785	7,063,009	750,459	6,442,703
39	Class Percentage	100.00%	68.85%	19.41%	5.82%	0.62%	5.31%
40							
41	Class COS with Equalized ROR	95,864,847	87,744,615	(15,693,898)	17,048,454	335,370	6,430,306
42	Class COS Percentage	100.00%	91.53%	-16.37%	17.78%	0.35%	6.71%
43							
44	Net Operating Income with Equalized ROR	25,555,382	19,533,336	827,587	2,836,866	142,192	2,215,401
45	Revenue Neutral Shift to Equalize Class ROR	0	11,838,339	(19,214,548)	6,411,156	(136,448)	1,101,502
46	Revenue Increase/Decrease % of Current Revenue	0.00%	14.16%	-81.55%	90.77%	-18.18%	17.10%
47							
48	1/2 of Revenue Neutral Shift	0	5,919,169	(9,607,274)	3,205,578	(68,224)	550,751
49	Revenue Increase/Decrease Percentage	0.00%	7.08%	-40.77%	45.39%	-9.09%	8.55%
50							
51	Revenue Neutral Margin Revenue	121,420,229	89,520,443	13,955,511	10,268,587	682,235	6,993,454
52	Recommended Class Revenue Percentage	100.00%	73.73%	11.49%	8.46%	0.56%	5.76%

Office of the Public Counsel
MAWC Class Cost of Service Summary

Warrensburg 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	1,214,741	599,882	198,403	37,864	182,185	108,259	12,055	76,092
2	Depreciation Expenses/TOIT Def Tax Exp	579,500	304,651	84,771	15,915	69,025	48,373	7,233	49,533
3	Taxes	178,235	89,379	26,554	5,078	22,053	15,792	2,395	16,984
4	TOTAL Expenses and Taxes	1,972,476	993,912	309,728	58,857	273,263	172,425	21,682	142,609
5									
6	Spread public fire expenses & taxes to others	15 142,609	125,708	13,539	293	3,069	0	0	(142,609)
7	TOTAL Expenses and Taxes after Spread	1,972,476	1,119,620	323,267	59,150	276,332	172,425	21,682	-
8									
9	Current Revenue								
10	Rate Revenue	2,493,543	1,359,577	503,174	56,497	333,934	176,726	63,635	0
11	Other Revenue	25 73,761	40,240	12,414	2,361	10,813	7,009	923	0
12	TOTAL Current Revenues	2,567,304	1,399,817	515,588	58,858	344,747	183,735	64,558	0
13	Current Revenue Percentage	100.00%	54.52%	20.08%	2.29%	13.43%	7.16%	2.51%	0.00%
14									
15	NET OPERATING INCOME	594,828	280,197	192,321	(292)	68,415	11,310	42,876	0
16									
17	TOTAL Rate Base	10,257,301	5,143,710	1,528,158	292,263	1,269,115	908,833	137,832	977,390
18									
19	Spread public fire rate base to others	15 977,390	861,557	92,790	2,010	21,032	0	0	(977,390)
20	TOTAL Rate Base after Spread	10,257,301	6,005,267	1,620,949	294,273	1,290,147	908,833	137,832	-
21									
22	Implicit Rate of Return (ROR)	5.80%	4.67%	11.86%	-0.10%	5.30%	1.24%	31.11%	
23									
24	Net Operating Income with Equalized ROR	594,828	348,250	94,000	17,065	74,817	52,704	7,993	
25	Plus Current Taxes	15 (178,235)							
26	Class COS with Equalized ROR	1,972,476	1,187,672	224,945	76,508	282,733	213,818	(13,201)	
27	Class COS Percentage	100.00%	60.21%	11.40%	3.88%	14.33%	10.84%	-0.67%	
28									
29	Staff Midpoint ROR	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	6.40%	
30									
31	Net Operating Income with Recommended ROR	656,467	384,337	103,741	18,833	82,569	58,165	8,821	
32	True-up plus add'l taxes	25 564,210	307,804	94,956	18,063	82,714	53,611	7,062	
33	Class COS with Staff Recommended ROR	3,193,153	1,811,761	521,963	96,047	441,616	284,201	37,566	
34	Class COS Percentage	100.00%	56.74%	16.35%	3.01%	13.83%	8.90%	1.18%	
35		1,220,677	624,089	297,018	19,539	158,882	70,383	50,766	
36									
37									
38	Current Revenue	2,567,304	1,399,817	515,588	58,858	344,747	183,735	64,558	
39	Class Percentage	100.00%	54.52%	20.08%	2.29%	13.43%	7.16%	2.51%	
40									
41	Class COS with Equalized ROR	1,972,476	1,187,672	224,945	76,508	282,733	213,818	(13,201)	
42	Class COS Percentage	100.00%	60.21%	11.40%	3.88%	14.33%	10.84%	-0.67%	
43									
44	Net Operating Income with Equalized ROR	594,828	348,250	94,000	17,065	74,817	52,704	7,993	
45	Revenue Neutral Shift to Equalize Class ROR	0	68,052	(98,321)	17,357	6,401	41,394	(34,883)	
46	Revenue Increase/Decrease % of Current Revenue	0.00%	4.86%	-19.07%	29.49%	1.86%	22.53%	-54.03%	
47									
48	1/2 of Revenue Neutral Shift	0	34,026	(49,161)	8,679	3,201	20,697	(17,441)	
49	Revenue Increase/Decrease Percentage	0.00%	2.43%	-9.53%	14.74%	0.93%	11.26%	-27.02%	
50									
51	Revenue Neutral Margin Revenue	2,567,304	1,433,843	466,427	67,537	347,948	204,432	47,117	
52	Recommended Class Revenue Percentage	100.00%	55.85%	18.17%	2.63%	13.55%	7.96%	1.84%	