

EXHIBIT

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32

Issue(s):

Witness/Type of Exhibit:

Sponsoring Party:

Case No.:

Cost of Service Study

Busch/Direct

Public Counsel

WR-2003-0500

DIRECT TESTIMONY

OF

JAMES A. BUSCH

Submitted on Behalf of the Office of the Public Counsel

Missouri-American Water Company

Case No. WR-2003-0500

October 10, 2003

Exhibit No. 32
Case No(s) WR-2003-0500
Date 12/16/03 Rptr SLM

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

In the Matter of Missouri-American Water)
Company for Authority to File Tariffs)
Reflecting Increased Rates for Water) Case No. WR-2003-0500
and Sewer Service.)

AFFIDAVIT OF JAMES A. BUSCH

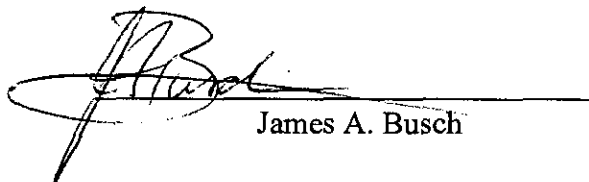
STATE OF MISSOURI)
)
COUNTY OF COLE)

ss


James A. Busch, of lawful age and being first duly sworn, deposes and states:

1. My name is James A. Busch. I am the Public Utility Economist for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my direct testimony consisting of pages 1 through 10 and Schedules JAB-1 and JAB-2.
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.

KATHLEEN HARRISON
Notary Public - State of Missouri
County of Cole
My Commission Expires Jan. 31, 2006


James A. Busch

Subscribed and sworn to me this 10th day of October 2003.


Kathleen Harrison, Notary Public

My commission expires January 31, 2006.

DIRECT TESTIMONY

OF

JAMES A. BUSCH

CASE NO. WR-2003-0500

MISSOURI-AMERICAN WATER COMPANY

Q. Please state your name and business address.

A. My name is James A. Busch and my business address is P. O. Box 7800,
Jefferson City, MO 65102.

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

A. I am a Public Utility Economist with the Missouri Office of the Public Counsel
(Public Counsel).

Q. Please describe your educational and professional background.

A. In June 1993, I received a Bachelor of Science degree in Economics from
Southern Illinois University at Edwardsville (SIUE), Edwardsville, Illinois. In
May 1995, I received a Master of Science degree in Economics, also from SIUE.
I am currently a member of the American Economic Association and Omicron
Delta Epsilon, an honorary economics society. Prior to joining Public Counsel, I
worked just over two years with the Missouri Public Service Commission as a
Regulatory Economist in the Procurement Analysis Department and worked one
year with the Missouri Department of Economic Development as a Research
Analyst. I accepted my current position with Public Counsel in September 1999.

1 Furthermore, I am a member of the Adjunct Faculty at Columbia College where I
2 teach both graduate and undergraduate level economics.

3 Q. Have you previously testified before this Commission?

4 A. Yes. Attached is Schedule JAB-1, which is a list of the cases in which I have
5 filed testimony before this Commission.

6 Q. What is the purpose of your testimony in Case No. WR-2003-0500?

7 A. The purpose of my testimony is to present Public Counsel's Class Cost of Service
8 (CCOS) study for Missouri American Water Company (MAWC) in this case.
9 Public Counsel witness Barbara Meisenheimer will use the results of this study as
10 a guide for developing Public Counsel's rate design recommendation in her
11 prepared testimony.

12 Q. What is the primary purpose of a COS study?

13 A. The primary purpose of a COS study is to provide an estimate of the cost of
14 providing service to each of the customer classes. It is to be used as a guide for
15 setting rates in conjunction with other rate design considerations of the
16 Commission.

17 Q. What are the primary steps in performing a COS study?

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

1 Costs are classified in a manner that allows them to be allocated based on the
2 water industry's commonly used "Base-Extra Capacity Method." Under this
3 method, depending on the classification with which the accounts are most closely
4 associated, costs of service are separated into four primary classes of costs: costs
5 that are related to the number of customers (customer costs), costs that are related
6 to the total quantity of water used (base costs), costs that are related to various
7 peak water usage such as peak day usage (extra capacity costs), and costs that are
8 related to fire-protection water usage (fire costs). For example, meter expenses
9 are considered customer-related, since a certain amount of meter expense will be
10 incurred solely for hooking up a customer. An example of base-related costs is
11 the chemicals cost. The amount of chemicals used in water treatment is directly
12 related to the total quantity of water used. Many plant accounts are partially base
13 load related and partially peak usage related since the plant included in many
14 accounts is sized to meet the needs of both annual water consumption and peak
15 water usage requirements. Fire hydrants and outlets are clearly fire protection
16 related costs.

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

22 Q. What customer classes did you use?

1 A. Since MAWC's last rate case, the Company has acquired the water districts of
2 Jefferson City and St. Louis County. The Jefferson City district has similar
3 customer classes as MAWC's old districts. St. Louis County had different rate
4 classifications. Therefore, consistent with MAWC's own cost study, I have
5 grouped the customer classes as follows for the old districts and Jefferson City:
6 Residential, Commercial, Industrial, Other Public Authorities (OPA), Sale for
7 Resale, and Public and Private Fire Protection. For St. Louis County, the
8 customer classes are: Rate A and others, Rate B, Rate J & D, and public and
9 private fire. Rate A includes residential, commercial, and municipal customers.
10 The other category includes such classes as metered construction. Rate B
11 includes wholesale or resale customers that constitute other public water districts.
12 Rates J and D are industrial and other resale customers.

13 Q. Did you prepare an alternate study?

14 A. Yes. In order to see the magnitude of any changes in revenue requirement to all
15 MAWC customers (i.e. residential, customer), I prepared a COS study that
16 divided St. Louis County water rate class A into residential and commercial
17 customers. I allocated approximately 65% of rate class A usage and customers to
18 the residential class and 35% to the commercial class.

19 Q. Why did you choose those percentages?

20 A. Those percentages are approximately the percentage of Residential and
21 Commercial customers in the St. Joseph district. I used St. Joseph as a proxy for
22 St. Louis county water.

23 Q. What data is used as the basis for your COS study?

1 A. Data used for this study includes MAWC workpapers filed in support of its direct
2 case, MAWC responses to Public Counsel's data requests, and Staff's preliminary
3 revenue requirement calculation. I also used the Rate of Return calculation
4 developed by OPC witness Mark Burdette. Use of the above data should not be
5 construed as an endorsement of either of the other parties' methods or their
6 results. This information was used because it was readily available and contains
7 the sufficient level of detail necessary to perform a COS study.

8 Q. How did you develop the allocators?

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

16 Q. Please explain your use of an economies of scale factor to allocate mains cost.

17 A. I utilized the same economies of scale factor developed by Ms. Hong Hu in Case
18 No. WR-2000-281. To derive the economies of scale factor using the base-extra
19 capacity method, I used, as an approximation, average daily send out, maximum
20 daily usage, and average hourly consumption. This information was found in the
21 Cost of Service Allocation Study schedule C, factor 4 and schedule D. To
22 determine what percentage of costs was attributable to base, day, or hour, I found
23 a percentage of base and hour and day and hour capacities by taking the ratio of

1 the square root of each approximation, respectively. I then applied this ratio to
2 the percentage of peak day and maximum hour demands to determine the overall
3 allocator. This allocator was then applied to the mains accounts in the cost of
4 service study. Public Counsel witness Barbara Meisenheimer will provide the
5 theoretical background for utilizing the economies of scale factor in her direct
6 testimony.

7 Q. Please describe how you allocated various plant accounts.

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

12 Pumping facilities and water treatment plant were allocated based on the capacity
13 allocators.

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

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

5 Q. How were operation and maintenance expenses allocated?

6 A. Source of supply, pumping, water treatment, and transmission and distribution
7 expenses were allocated using the "expenses follow plant" principle for most
8 accounts in this category. "Expenses follow plant" basically means that for any
9 expense related to a particular rate base component, the expense should be
10 allocated in the same manner as the rate base account. For accounts 602, 623, and
11 641, the base allocator was used because the costs in these accounts tend to vary
12 with the total amount of water consumed.

13 Q. Are there other operation and maintenance expenses to which the "expenses
14 follow plant" principle does not apply?

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

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

20 Injuries and damages and employee pensions and benefits are payroll-related
21 expenses so they were allocated on the basis of the amount of labor expense that I
22 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 describe the results of Public Counsel's COS study.

14 A. Schedule JAB-2 shows a summary of the results of Public Counsel's COS study
15 for each customer class in each district. The results of the COS study are also
16 contained in Table 1 below. This table shows the percentage of current revenues
17 collected from each class in each district. Next it shows the percentage of each
18 classes' COS service. Finally, it shows the overall percentage increase from
19 current revenues for each class that would be necessary to meet its cost of service
20 share.

TABLE 1

	DISTRICT	TOTAL	RES	COMM	INDUS	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE
Current Rev %	Warrensburg	100.00%	50.71%	18.99%	3.14%	16.51%	8.50%	2.14%
Class COS %	Warrensburg	100.00%	53.58%	17.43%	3.47%	15.13%	9.26%	1.14%
Percent Change	Warrensburg	-8.61%	-8.86%	-8.08%	-9.92%	-7.96%	-9.99%	-5.34%
Current Rev %	St. Louis County	100.00%	67.78%	17.03%	6.48%	0.84%	1.83%	0.94%
Class COS %	St. Louis County	100.00%	55.89%	29.47%	10.90%	2.90%	0.30%	0.54%
Percent Change	St. Louis County	-14.21%	-11.73%	-23.86%	-24.96%	-52.33%	-2.44%	-9.43%
Current Rev %	St. Joseph	100.00%	45.48%	19.15%	17.88%	4.00%	12.54%	0.95%
Class COS %	St. Joseph	100.00%	45.01%	19.14%	17.17%	4.47%	12.43%	1.78%
Percent Change	St. Joseph	-4.66%	-4.41%	-4.76%	-4.71%	-5.31%	-4.90%	-7.88%
Current Rev %	St. Charles	100.00%	85.51%	11.21%	0.05%	1.87%	0.00%	1.36%
Class COS %	St. Charles	100.00%	87.06%	10.16%	0.05%	1.67%	0.00%	1.06%
Percent Change	St. Charles	-13.06%	-13.20%	-12.37%	-12.67%	-11.71%	0.00%	-11.76%
Current Rev %	Parkville	100.00%	71.49%	14.13%	0.52%	3.40%	8.13%	2.33%
Class COS %	Parkville	100.00%	70.39%	15.24%	0.69%	3.64%	8.90%	1.14%
Percent Change	Parkville	7.01%	6.77%	7.83%	9.73%	7.90%	8.15%	3.53%
Current Rev %	Mexico	100.00%	48.11%	14.03%	12.17%	7.77%	14.82%	3.09%
Class COS %	Mexico	100.00%	46.86%	14.04%	15.52%	8.95%	13.61%	1.01%
Percent Change	Mexico	12.61%	12.05%	12.70%	16.53%	14.19%	11.93%	4.75%
Current Rev %	Joplin	100.00%	51.75%	20.42%	17.57%	2.57%	5.27%	2.42%
Class COS %	Joplin	100.00%	48.72%	20.46%	20.84%	2.72%	5.83%	1.43%
Percent Change	Joplin	-8.59%	-8.01%	-8.53%	-10.29%	-8.08%	-9.85%	-7.19%
Current Rev %	Jefferson City	100.00%	59.06%	28.78%	6.41%	1.86%	0.00%	3.90%
Class COS %	Jefferson City	100.00%	53.59%	38.66%	5.39%	1.30%	0.00%	1.06%
Percent Change	Jefferson City	39.35%	34.76%	54.37%	33.88%	25.09%	0.00%	13.79%
Current Rev %	Brunswick	100.00%	49.26%	13.75%	0.37%	1.79%	32.45%	2.38%
Class COS %	Brunswick	100.00%	48.86%	13.42%	0.37%	1.92%	34.08%	1.34%
Percent Change	Brunswick	108.22%	121.39%	110.25%	73.22%	80.86%	87.83%	128.12%

Q. It looks as if the Jefferson City District is supposed to get a large increase. Why?

A. OPC has been informed that there was a revenue problem in the Staff data that was utilized by OPC in performing its study. The current revenues initially given

1 to OPC are less than the actual revenues for the Jefferson City District. This
2 means that Jefferson City's deficit is actually less than the deficit shown by
3 OPC's study. Once updated numbers are provided, OPC will update its CCOS.

4 Q. What is the relative importance of COS study results in rate design?

5 A. A COS study provides a general guide in setting rates. Other factors must be
6 considered when determining the reasonable rate for a service. These factors
7 include the value of service, affordability, rate impact, and rate continuity. The
8 determination as to the manner in which all these factors are balanced by the
9 Commission in setting the rates can only be determined on a case-by-case basis.

10 Q. Has Public Counsel proposed a rate design method for this case?

11 A. Yes. Public Counsel witness Barbara Meisenheimer will discuss the principles
12 and method of rate design that Public Counsel recommends in her prepared
13 testimony in this case.

14 Q. Does this conclude your direct testimony?

15 A. Yes it does.

**Cases of Filed Testimony
James A. Busch**

<u>Company</u>	<u>Case No.</u>
Union Electric Company	GR-97-393
Missouri Gas Energy	GR-98-140
Laclede Gas Company	GO-98-484
Laclede Gas Company	GR-98-374
St. Joseph Light & Power	GR-99-246
Laclede Gas Company	GT-99-303
Laclede Gas Company	GR-99-315
Fiber Four Corporation	TA-2000-23; et al.
Missouri American Water Company	WR-2000-281/SR-2000-282
Union Electric Company d/b/a AmerenUE	GR-2000-512
St. Louis County Water	WR-2000-844
Empire District Electric Company	ER-2001-299
Missouri Gas Energy	GR-2001-292
Laclede Gas Company	GT-2001-329
Laclede Gas Company	GO-2000-394
Laclede Gas Company	GR-2001-629
UtiliCorp United, Inc	ER-2001-672
Union Electric Company d/b/a AmerenUE	EC-2002-1
Laclede Gas Company	GR-2002-356
Empire District Electric Company	ER-2002-424
Southern Union Company	GM-2003-0238
Aquila, Inc	EF-2003-0465

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	\$ 289,104	\$ 130,801	\$ 37,475	\$ 1,266	\$ 6,656	\$ 113,036	\$ 260	\$ (390)
2	Depreciation Expenses	\$ 39,717	\$ 18,429	\$ 4,828	\$ 96	\$ 637	\$ 12,763	\$ 310	\$ 2,653
3	Taxes	\$ (40,953)	\$ (19,350)	\$ (4,866)	\$ (78)	\$ (570)	\$ (11,806)	\$ (450)	\$ (3,833)
4	TOTAL Expenses and Taxes	\$ 287,868	\$ 129,881	\$ 37,437	\$ 1,284	\$ 6,724	\$ 113,994	\$ 120	\$ (1,570)
5									
6	Spread public fire ex	15 \$ (1,570)	\$ (1,285)	\$ (258)	\$ (7)	\$ (21)	\$ -	\$ -	\$ 1,570
7	TOTAL Expenses and Taxes after Spread	\$ 287,868	\$ 128,596	\$ 37,179	\$ 1,277	\$ 6,703	\$ 113,994	\$ 120	\$ -
8									
9	Current Revenue								
10	Rate Revenue	\$ 202,793	\$ 100,479	\$ 27,974	\$ 744	\$ 3,552	\$ 64,974	\$ 5,070	\$ -
11	Other Revenue	25 \$ 9,594	\$ 4,143	\$ 1,238	\$ 48	\$ 242	\$ 3,946	\$ (23)	\$ -
12	TOTAL Current Revenues	\$ 212,387	\$ 104,622	\$ 29,212	\$ 792	\$ 3,794	\$ 68,920	\$ 5,047	\$ -
13	Current Revenue Percentage	100.00%	49.26%	13.75%	0.37%	1.79%	32.45%	2.38%	0.00%
14									
15	OPERATING INCOME	\$ (75,481)	\$ (23,974)	\$ (7,967)	\$ (485)	\$ (2,909)	\$ (45,074)	\$ 4,927	\$ -
16									
17	TOTAL Rate Base	\$ 773,309	\$ 359,705	\$ 93,597	\$ 1,900	\$ 12,388	\$ 243,990	\$ 6,579	\$ 55,150
18									
19	Spread public fire ra	15 \$ 55,150	\$ 45,134	\$ 9,051	\$ 241	\$ 724	\$ -	\$ -	\$ (55,150)
20	TOTAL Rate Base after Spread	\$ 773,309	\$ 404,839	\$ 102,647	\$ 2,141	\$ 13,112	\$ 243,990	\$ 6,579	\$ -
21									
22	Implicit Rate of Return (ROR)	-9.76%	-5.92%	-7.76%	-22.64%	-22.19%	-18.47%	74.88%	
23									
24	Operating Income with Equalized ROR	\$ (75,481)	\$ (39,516)	\$ (10,019)	\$ (209)	\$ (1,280)	\$ (23,815)	\$ (642)	
25									
26	Class COS with Equalized ROR	\$ 212,387	\$ 89,080	\$ 27,160	\$ 1,068	\$ 5,423	\$ 90,178	\$ (522)	
27	Class COS Percentage	100.00%	41.94%	12.79%	0.50%	2.55%	42.46%	-0.25%	
28									
29	OPC Recommended ROR	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30									
31	Operating Income with Recommended ROR	\$ 57,611	\$ 30,160	\$ 7,647	\$ 160	\$ 977	\$ 18,177	\$ 490	
32	True-up plus add'l ta	25 \$ 96,763	\$ 41,785	\$ 12,488	\$ 487	\$ 2,441	\$ 39,797	\$ (235)	
33	Class COS with Recommended ROR	\$ 442,242	\$ 216,083	\$ 59,367	\$ 1,648	\$ 8,491	\$ 150,710	\$ 5,944	
34	Class COS Percentage	100.00%	48.86%	13.42%	0.37%	1.92%	34.08%	1.34%	
		229,855	127,002	32,207	580	3,068	60,532	6,466	

Office of the 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 RESALE	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1 O & M Expenses		\$ 2,430,399	\$ 1,295,076	\$ 916,074	\$ 128,808	\$ 33,426	\$ -	\$ 19,828	\$ 37,186
2 Depreciation Expenses		\$ 353,748	\$ 158,795	\$ 139,344	\$ 19,501	\$ 3,662	\$ -	\$ 5,847	\$ 26,598
3 Taxes		\$ 76,201	\$ 38,673	\$ 28,569	\$ 4,094	\$ 994	\$ -	\$ 1,024	\$ 2,847
4 TOTAL Expenses and Taxes		\$ 2,860,348	\$ 1,492,545	\$ 1,083,987	\$ 152,403	\$ 38,082	\$ -	\$ 26,699	\$ 66,632
5									
6 Spread public fire expen	15	\$ 66,632	\$ 57,087	\$ 8,849	\$ 260	\$ 436	\$ -	\$ -	\$ (66,632)
7 TOTAL Expenses and Taxes after Spread		\$ 2,860,348	\$ 1,549,633	\$ 1,092,836	\$ 152,663	\$ 38,518	\$ -	\$ 26,699	\$ -
8									
9 Current Revenue									
10 Rate Revenue		\$ 2,865,193	\$ 1,693,760	\$ 821,804	\$ 183,869	\$ 53,370	\$ (103)	\$ 112,493	\$ -
11 Other Revenue	25	\$ 26,671	\$ 14,236	\$ 10,359	\$ 1,456	\$ 363	\$ -	\$ 257	\$ -
12 TOTAL Current Revenues		\$ 2,891,864	\$ 1,707,996	\$ 832,163	\$ 185,325	\$ 53,733	\$ (103)	\$ 112,750	\$ -
13 Current Revenue Percentage		100.00%	59.06%	28.78%	6.41%	1.86%	0.00%	3.90%	0.00%
14									
15 OPERATING INCOME		\$ 31,516	\$ 158,363	\$ (260,673)	\$ 32,662	\$ 15,215	\$ (103)	\$ 86,051	\$ -
16									
17 TOTAL Rate Base		\$ 9,268,333	\$ 4,154,712	\$ 3,654,596	\$ 512,493	\$ 93,432	\$ -	\$ 153,724	\$ 699,375
18									
19 Spread public fire rate b	15	\$ 699,375	\$ 599,193	\$ 92,880	\$ 2,731	\$ 4,572	\$ -	\$ -	\$ (699,375)
20 TOTAL Rate Base after Spread		\$ 9,268,333	\$ 4,753,905	\$ 3,747,476	\$ 515,224	\$ 98,004	\$ -	\$ 153,724	\$ -
21									
22 Implicit Rate of Return (ROR)		0.34%	3.33%	-6.96%	6.34%	15.52%	#DIV/0!	55.98%	
23									
24 Operating Income with Equalized ROR		\$ 31,516	\$ 16,165	\$ 12,743	\$ 1,752	\$ 333	\$ -	\$ 523	
25									
26 Class COS with Equalized ROR		\$ 2,891,864	\$ 1,565,798	\$ 1,105,579	\$ 154,415	\$ 38,851	\$ -	\$ 27,222	
27 Class COS Percentage		100.00%	54.14%	38.23%	5.34%	1.34%	0.00%	0.94%	
28									
29 OPC Recommended ROR		7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30									
31 Operating Income with Recommended ROR		\$ 690,491	\$ 354,166	\$ 279,187	\$ 38,384	\$ 7,301	\$ -	\$ 11,452	
32 True-up plus add'l taxes	25	\$ 478,904	\$ 255,615	\$ 186,006	\$ 26,150	\$ 6,515	\$ -	\$ 4,618	
33 Class COS with Recommended ROR		\$ 4,029,744	\$ 2,159,414	\$ 1,558,029	\$ 217,197	\$ 52,334	\$ -	\$ 42,770	
34 Class COS Percentage		100.00%	53.59%	38.66%	5.39%	1.30%	0.00%	1.06%	
		\$ 1,137,879	\$ 593,616	\$ 452,450	\$ 62,782	\$ 13,483	\$ -	\$ 15,548	

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		\$ 4,009,177	\$ 1,858,456	\$ 812,535	\$ 837,034	\$ 118,584	\$ 229,638	\$ 36,821	\$ 116,109
2 Depreciation Expenses		\$ 740,464	\$ 340,402	\$ 144,337	\$ 147,203	\$ 17,579	\$ 42,077	\$ 15,373	\$ 33,492
3 Taxes		\$ 1,305,132	\$ 573,106	\$ 256,130	\$ 274,329	\$ 31,532	\$ 78,577	\$ 25,496	\$ 65,962
4 TOTAL Expenses and Taxes		\$ 6,054,773	\$ 2,771,964	\$ 1,213,002	\$ 1,258,566	\$ 167,695	\$ 350,292	\$ 77,690	\$ 215,564
5									
6 Spread public fire expens	15	\$ 215,564	\$ 184,685	\$ 28,628	\$ 842	\$ 1,409	\$ -	\$ -	\$ (215,564)
7 TOTAL Expenses and Taxes after Spread		\$ 6,054,773	\$ 2,956,649	\$ 1,241,630	\$ 1,259,408	\$ 169,104	\$ 350,292	\$ 77,690	\$ -
8									
9 Current Revenue									
10 Rate Revenue		\$ 8,069,321	\$ 4,183,872	\$ 1,647,603	\$ 1,410,520	\$ 207,179	\$ 423,522	\$ 196,625	\$ -
11 Other Revenue	25	\$ 170,992	\$ 80,601	\$ 35,467	\$ 37,117	\$ 4,750	\$ 10,421	\$ 2,636	\$ -
12 TOTAL Current Revenues		\$ 8,240,313	\$ 4,264,473	\$ 1,683,070	\$ 1,447,637	\$ 211,929	\$ 433,943	\$ 199,261	\$ -
13 Current Revenue Percentage		100.00%	51.75%	20.42%	17.57%	2.57%	5.27%	2.42%	0.00%
14									
15 OPERATING INCOME		\$ 2,185,540	\$ 1,307,824	\$ 441,439	\$ 188,229	\$ 42,825	\$ 83,652	\$ 121,571	\$ -
16									
17 TOTAL Rate Base		\$ 19,987,284	\$ 8,745,940	\$ 3,911,282	\$ 4,196,388	\$ 475,453	\$ 1,205,903	\$ 406,121	\$ 1,046,199
18									
19 Spread public fire rate ba	15	\$ 1,046,199	\$ 896,335	\$ 138,939	\$ 4,085	\$ 6,839	\$ -	\$ -	\$ (1,046,199)
20 TOTAL Rate Base after Spread		\$ 19,987,284	\$ 9,642,275	\$ 4,050,221	\$ 4,200,473	\$ 482,292	\$ 1,205,903	\$ 406,121	\$ -
21									
22 Implicit Rate of Return (ROR)		10.93%	13.56%	10.90%	4.48%	8.88%	6.94%	29.93%	
23									
24 Operating Income with Equalized ROR		\$ 2,185,540	\$ 1,054,349	\$ 442,878	\$ 459,307	\$ 52,737	\$ 131,861	\$ 44,408	
25									
26 Class COS with Equalized ROR		\$ 8,240,313	\$ 4,010,998	\$ 1,684,508	\$ 1,718,715	\$ 221,841	\$ 482,153	\$ 122,098	
27 Class COS Percentage		100.00%	48.68%	20.44%	20.86%	2.69%	5.85%	1.48%	
28									
29 OPC Recommended ROR		7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30									
31 Operating Income with Recommended ROR		\$ 1,489,053	\$ 718,349	\$ 301,741	\$ 312,935	\$ 35,931	\$ 89,840	\$ 30,256	
32 True-up plus add'l taxes	25	\$ (11,751)	\$ (5,539)	\$ (2,437)	\$ (2,551)	\$ (326)	\$ (716)	\$ (181)	
33 Class COS with Recommended ROR		\$ 7,532,075	\$ 3,669,460	\$ 1,540,934	\$ 1,569,793	\$ 204,708	\$ 439,415	\$ 107,765	
34 Class COS Percentage		100.00%	48.72%	20.46%	20.84%	2.72%	5.83%	1.43%	
		(708,237)	(341,538)	(143,573)	(148,922)	(17,133)	(42,738)	(14,333)	

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	\$	1,262,962	\$ 568,010	\$ 173,115	\$ 191,147	\$ 119,369	\$ 167,483	\$ 9,118	\$ 34,719
2 Depreciation Expenses	\$	369,845	\$ 161,907	\$ 50,572	\$ 57,152	\$ 30,626	\$ 49,920	\$ 4,941	\$ 14,728
3 Taxes	\$	298,094	\$ 127,873	\$ 40,844	\$ 47,177	\$ 25,237	\$ 41,563	\$ 3,651	\$ 11,748
4 TOTAL Expenses and Taxes	\$	1,930,901	\$ 857,791	\$ 264,531	\$ 295,475	\$ 175,233	\$ 258,966	\$ 17,710	\$ 61,196
5									
6 Spread public fire expe	15 \$	61,196	\$ 53,759	\$ 5,937	\$ 277	\$ 1,223	\$ -	\$ -	\$ (61,196)
7 TOTAL Expenses and Taxes after Spread	\$	1,930,901	\$ 911,550	\$ 270,468	\$ 295,752	\$ 176,455	\$ 258,966	\$ 17,710	\$ -
8									
9 Current Revenue									
10 Rate Revenue	\$	2,486,854	\$ 1,197,434	\$ 348,742	\$ 301,415	\$ 192,751	\$ 368,933	\$ 77,579	\$ -
11 Other Revenue	25 \$	35,702	\$ 16,271	\$ 5,062	\$ 5,704	\$ 3,292	\$ 5,006	\$ 367	\$ -
12 TOTAL Current Revenues	\$	2,522,556	\$ 1,213,705	\$ 353,804	\$ 307,119	\$ 196,043	\$ 373,939	\$ 77,946	\$ -
13 Current Revenue Percentage		100.00%	48.11%	14.03%	12.17%	7.77%	14.82%	3.09%	0.00%
14									
15 OPERATING INCOME	\$	591,654	\$ 302,156	\$ 83,336	\$ 11,367	\$ 19,588	\$ 114,973	\$ 60,235	\$ -
16									
17 TOTAL Rate Base	\$	10,627,082	\$ 4,555,891	\$ 1,459,799	\$ 1,693,118	\$ 891,586	\$ 1,491,429	\$ 132,111	\$ 403,148
18									
19 Spread public fire rate	15 \$	403,148	\$ 354,156	\$ 39,111	\$ 1,827	\$ 8,055	\$ -	\$ -	\$ (403,148)
20 TOTAL Rate Base after Spread	\$	10,627,082	\$ 4,910,047	\$ 1,498,910	\$ 1,694,945	\$ 899,641	\$ 1,491,429	\$ 132,111	\$ -
21									
22 Implicit Rate of Return (ROR)		5.57%	6.15%	5.56%	0.67%	2.18%	7.71%	45.59%	
23									
24 Operating Income with Equalized ROR	\$	591,654	\$ 273,363	\$ 83,451	\$ 94,365	\$ 50,087	\$ 83,034	\$ 7,355	
25									
26 Class COS with Equalized ROR	\$	2,522,556	\$ 1,184,912	\$ 353,919	\$ 390,117	\$ 226,542	\$ 342,000	\$ 25,065	
27 Class COS Percentage		100.00%	46.97%	14.03%	15.47%	8.98%	13.56%	0.99%	
28									
29 OPC Recommended ROR		7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30									
31 Operating Income with Recommended ROR	\$	791,718	\$ 365,798	\$ 111,669	\$ 126,273	\$ 67,023	\$ 111,111	\$ 9,842	
32 True-up plus add'l tax	25 \$	117,950	\$ 53,757	\$ 16,723	\$ 18,845	\$ 10,876	\$ 16,537	\$ 1,212	
33 Class COS with Recommended ROR	\$	2,840,569	\$ 1,331,105	\$ 398,860	\$ 440,871	\$ 254,355	\$ 386,614	\$ 28,764	
34 Class COS Percentage		100.00%	46.86%	14.04%	15.52%	8.95%	13.61%	1.01%	
	\$	318,014	\$ 146,192	\$ 44,941	\$ 50,754	\$ 27,813	\$ 44,614	\$ 3,699	

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	\$ 1,270,245	\$ 861,600	\$ 188,354	\$ 10,017	\$ 51,126	\$ 111,139	\$ 8,306	\$ 39,705
2	Depreciation Expenses	\$ 283,141	\$ 180,430	\$ 41,316	\$ 1,622	\$ 8,965	\$ 24,054	\$ 4,469	\$ 22,285
3	Taxes	\$ 666,581	\$ 417,172	\$ 98,487	\$ 3,870	\$ 21,223	\$ 59,671	\$ 10,235	\$ 55,923
4	TOTAL Expenses and Taxes	\$ 2,219,968	\$ 1,459,202	\$ 328,157	\$ 15,509	\$ 81,314	\$ 194,864	\$ 23,010	\$ 117,913
5									
6	Spread public fire expen	15 \$ 117,913	\$ 108,663	\$ 7,521	\$ 280	\$ 1,448	\$ -	\$ -	\$ (117,913)
7	TOTAL Expenses and Taxes after Spread	\$ 2,219,968	\$ 1,567,865	\$ 335,678	\$ 15,789	\$ 82,762	\$ 194,864	\$ 23,010	\$ -
8									
9	Current Revenue								
10	Rate Revenue	\$ 2,841,730	\$ 2,032,163	\$ 400,946	\$ 14,832	\$ 96,594	\$ 230,612	\$ 66,583	\$ -
11	Other Revenue	25 \$ 31,464	\$ 21,752	\$ 4,956	\$ 224	\$ 1,189	\$ 2,963	\$ 380	\$ -
12	TOTAL Current Revenues	\$ 2,873,194	\$ 2,053,915	\$ 405,902	\$ 15,056	\$ 97,783	\$ 233,575	\$ 66,963	\$ -
13	Current Revenue Percentage	100.00%	71.49%	14.13%	0.52%	3.40%	8.13%	2.33%	0.00%
14									
15	OPERATING INCOME	\$ 653,227	\$ 486,051	\$ 70,224	\$ (733)	\$ 15,020	\$ 38,711	\$ 43,953	\$ -
16									
17	TOTAL Rate Base	\$ 8,436,415	\$ 5,267,838	\$ 1,262,421	\$ 48,791	\$ 268,662	\$ 771,495	\$ 124,472	\$ 692,737
18									
19	Spread public fire rate b	15 \$ 692,737	\$ 638,394	\$ 44,188	\$ 1,647	\$ 8,508	\$ -	\$ -	\$ (692,737)
20	TOTAL Rate Base after Spread	\$ 8,436,415	\$ 5,906,231	\$ 1,306,609	\$ 50,438	\$ 277,170	\$ 771,495	\$ 124,472	\$ -
21									
22	Implicit Rate of Return (ROR)	7.74%	8.23%	5.37%	-1.45%	5.42%	5.02%	35.31%	
23									
24	Operating Income with Equalized ROR	\$ 653,227	\$ 457,316	\$ 101,170	\$ 3,905	\$ 21,461	\$ 59,736	\$ 9,638	
25									
26	Class COS with Equalized ROR	\$ 2,873,194	\$ 2,025,181	\$ 436,848	\$ 19,694	\$ 104,223	\$ 254,600	\$ 32,647	
27	Class COS Percentage	100.00%	70.49%	15.20%	0.69%	3.63%	8.86%	1.14%	
28									
29	OPC Recommended ROR	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30									
31	Operating Income with Recommended ROR	\$ 628,513	\$ 440,014	\$ 97,342	\$ 3,758	\$ 20,649	\$ 57,476	\$ 9,273	
32	True-up plus add'l taxes	25 \$ 226,058	\$ 156,283	\$ 35,609	\$ 1,613	\$ 8,539	\$ 21,286	\$ 2,728	
33	Class COS with Recommended ROR	\$ 3,074,538	\$ 2,164,161	\$ 468,629	\$ 21,160	\$ 111,951	\$ 273,627	\$ 35,010	
34	Class COS Percentage	100.00%	70.39%	15.24%	0.69%	3.64%	8.90%	1.14%	
		\$ 201,344	\$ 138,981	\$ 31,781	\$ 1,465	\$ 7,728	\$ 19,026	\$ 2,363	

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	\$ 2,575,222	\$ 2,163,307	\$ 246,941	\$ 1,363	\$ 45,460	\$ -	\$ 16,469	\$ 101,682
2 Depreciation Expenses	\$ 883,332	\$ 682,920	\$ 86,070	\$ 371	\$ 14,043	\$ -	\$ 11,869	\$ 88,060
3 Taxes	\$ 2,042,524	\$ 1,567,180	\$ 206,446	\$ 908	\$ 32,615	\$ -	\$ 25,904	\$ 209,473
4 TOTAL Expenses and Taxes	\$ 5,501,078	\$ 4,413,407	\$ 539,457	\$ 2,641	\$ 92,118	\$ -	\$ 54,242	\$ 399,214
5								
6 Spread public fire expen	15 \$ 399,214	\$ 385,504	\$ 12,778	\$ 29	\$ 904	\$ -	\$ -	\$ (399,214)
7 TOTAL Expenses and Taxes after Spread	\$ 5,501,078	\$ 4,798,910	\$ 552,235	\$ 2,670	\$ 93,021	\$ -	\$ 54,242	\$ -
8								
9 Current Revenue								
10 Rate Revenue	\$ 8,552,561	\$ 7,312,573	\$ 959,209	\$ 4,132	\$ 159,641	\$ -	\$ 117,006	\$ -
11 Other Revenue	25 \$ 149,175	\$ 128,463	\$ 16,193	\$ 76	\$ 2,684	\$ -	\$ 1,758	\$ -
12 TOTAL Current Revenues	\$ 8,701,736	\$ 7,441,036	\$ 975,402	\$ 4,208	\$ 162,325	\$ -	\$ 118,764	\$ -
13 Current Revenue Percentage	100.00%	85.51%	11.21%	0.05%	1.87%	0.00%	1.36%	0.00%
14								
15 OPERATING INCOME	\$ 3,200,658	\$ 2,642,126	\$ 423,167	\$ 1,539	\$ 69,304	\$ -	\$ 64,522	\$ -
16								
17 TOTAL Rate Base	\$ 31,558,534	\$ 24,224,677	\$ 3,224,765	\$ 14,134	\$ 507,232	\$ -	\$ 393,066	\$ 3,194,660
18								
19 Spread public fire rate b	15 \$ 3,194,660	\$ 3,084,943	\$ 102,258	\$ 230	\$ 7,230	\$ -	\$ -	\$ (3,194,660)
20 TOTAL Rate Base after Spread	\$ 31,558,534	\$ 27,309,620	\$ 3,327,022	\$ 14,364	\$ 514,462	\$ -	\$ 393,066	\$ -
21								
22 Implicit Rate of Return (ROR)	10.14%	9.67%	12.72%	10.71%	13.47%	#DIV/0!	16.42%	
23								
24 Operating Income with Equalized ROR	\$ 3,200,658	\$ 2,769,734	\$ 337,426	\$ 1,457	\$ 52,177	\$ -	\$ 39,865	
25								
26 Class COS with Equalized ROR	\$ 8,701,736	\$ 7,568,645	\$ 889,661	\$ 4,126	\$ 145,198	\$ -	\$ 94,106	
27 Class COS Percentage	100.00%	86.98%	10.22%	0.05%	1.67%	0.00%	1.08%	
28								
29 OPC Recommended ROR	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30								
31 Operating Income with Recommended ROR	\$ 2,351,111	\$ 2,034,567	\$ 247,863	\$ 1,070	\$ 38,327	\$ -	\$ 29,283	
32 True-up plus add'l taxes	25 \$ (286,808)	\$ (246,987)	\$ (31,134)	\$ (146)	\$ (5,161)	\$ -	\$ (3,381)	
33 Class COS with Recommended ROR	\$ 7,565,381	\$ 6,586,490	\$ 768,965	\$ 3,593	\$ 126,188	\$ -	\$ 80,145	
34 Class COS Percentage	100.00%	87.06%	10.16%	0.05%	1.67%	0.00%	1.06%	
	\$ (1,136,356)	\$ (982,154)	\$ (120,696)	\$ (533)	\$ (19,010)	\$ -	\$ (13,962)	

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	\$ 5,674,383	\$ 2,650,172	\$ 1,027,458	\$ 870,716	\$ 251,236	\$ 617,674	\$ 116,714	\$ 140,413
2	Depreciation Expenses	\$ 1,675,120	\$ 669,979	\$ 315,900	\$ 293,960	\$ 73,107	\$ 214,547	\$ 42,846	\$ 64,780
3	Taxes	\$ 3,152,593	\$ 1,248,136	\$ 604,905	\$ 571,250	\$ 141,079	\$ 417,937	\$ 50,278	\$ 119,009
4	TOTAL Expenses and Taxes	\$ 10,502,097	\$ 4,568,287	\$ 1,948,263	\$ 1,735,927	\$ 465,422	\$ 1,250,159	\$ 209,838	\$ 324,202
5									
6	Spread public fire expenses & taxes to	15 \$ 324,202	\$ 288,642	\$ 32,118	\$ 1,463	\$ 1,978	\$ -	\$ -	\$ (324,202)
7	TOTAL Expenses and Taxes after Spread	\$ 10,502,097	\$ 4,856,929	\$ 1,980,381	\$ 1,737,390	\$ 467,400	\$ 1,250,159	\$ 209,838	\$ -
8									
9	Current Revenue								
10	Rate Revenue	\$ 16,394,416	\$ 7,460,181	\$ 3,138,604	\$ 2,931,266	\$ 655,164	\$ 2,054,574	\$ 154,627	\$ -
11	Other Revenue	25 \$ 188,014	\$ 81,650	\$ 36,603	\$ 33,415	\$ 8,663	\$ 24,221	\$ 3,462	\$ -
12	TOTAL Current Revenues	\$ 16,582,430	\$ 7,541,831	\$ 3,175,207	\$ 2,964,681	\$ 663,827	\$ 2,078,795	\$ 158,089	\$ -
13	Current Revenue Percentage	100.00%	45.48%	19.15%	17.88%	4.00%	12.54%	0.95%	0.00%
14									
15	OPERATING INCOME	\$ 6,080,333	\$ 2,684,902	\$ 1,194,826	\$ 1,227,291	\$ 196,427	\$ 828,637	\$ (51,749)	\$ -
16									
17	TOTAL Rate Base	\$ 76,303,951	\$ 30,042,269	\$ 14,739,548	\$ 14,001,033	\$ 3,434,184	\$ 10,251,773	\$ 1,063,354	\$ 2,771,790
18									
19	Spread public fire rate base to others	15 \$ 2,771,790	\$ 2,467,768	\$ 274,598	\$ 12,510	\$ 16,915	\$ -	\$ -	\$ (2,771,790)
20	TOTAL Rate Base after Spread	\$ 76,303,951	\$ 32,510,038	\$ 15,014,146	\$ 14,013,542	\$ 3,451,099	\$ 10,251,773	\$ 1,063,354	\$ -
21									
22	Implicit Rate of Return (ROR)	7.97%	8.26%	7.96%	8.76%	5.69%	8.08%	-4.87%	
23									
24	Operating Income with Equalized ROR	\$ 6,080,333	\$ 2,590,585	\$ 1,196,413	\$ 1,116,679	\$ 275,003	\$ 816,920	\$ 84,734	
25									
26	Class COS with Equalized ROR	\$ 16,582,430	\$ 7,447,514	\$ 3,176,794	\$ 2,854,069	\$ 742,403	\$ 2,067,078	\$ 294,572	
27	Class COS Percentage	100.00%	44.91%	19.16%	17.21%	4.48%	12.47%	1.78%	
28									
29	OPC Recommended ROR	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30									
31	Operating Income with Recommended ROR	\$ 5,684,644	\$ 2,421,998	\$ 1,118,554	\$ 1,044,009	\$ 257,107	\$ 763,757	\$ 79,220	
32	True-up plus add'l taxes	25 \$ (377,219)	\$ (163,817)	\$ (73,437)	\$ (67,041)	\$ (17,382)	\$ (48,596)	\$ (6,946)	
33	Class COS with Recommended ROR	\$ 15,809,522	\$ 7,115,110	\$ 3,025,498	\$ 2,714,358	\$ 707,125	\$ 1,965,320	\$ 282,112	
34	Class COS Percentage	100.00%	45.01%	19.14%	17.17%	4.47%	12.43%	1.78%	
		\$ (772,908)	\$ (332,405)	\$ (151,296)	\$ (139,711)	\$ (35,278)	\$ (101,759)	\$ (12,460)	

Office of the Public Counsel
MAWC Class Cost of Service Study

St. Louis County 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	\$ 54,690,242	\$ 28,850,799	\$ 15,811,527	\$ 5,869,922	\$ 1,520,670	\$ 157,093	\$ 248,340	\$ 2,231,891
2	Depreciation Expenses	\$ 10,484,590	\$ 5,297,158	\$ 2,684,162	\$ 1,167,708	\$ 314,506	\$ 31,830	\$ 65,464	\$ 923,761
3	Taxes	\$ 22,041,772	\$ 11,140,447	\$ 5,608,186	\$ 2,458,210	\$ 672,251	\$ 67,978	\$ 137,469	\$ 1,957,231
4	TOTAL Expenses and Taxes	\$ 87,216,603	\$ 45,288,405	\$ 24,103,874	\$ 9,495,840	\$ 2,507,427	\$ 256,902	\$ 451,272	\$ 5,112,883
5									
6	Spread public fire expenses &	15 \$ 5,112,883	\$ 3,320,758	\$ 1,788,101	\$ 3,993	\$ 31	\$ -	\$ -	\$ (5,112,883)
7	TOTAL Expenses and Taxes after Spread	\$ 87,216,603	\$ 48,609,163	\$ 25,891,975	\$ 9,499,833	\$ 2,507,458	\$ 256,902	\$ 451,272	\$ -
8									
9	Current Revenue								
10	Rate Revenue	\$ 115,789,663	\$ 78,855,353	\$ 19,358,104	\$ 7,350,725	\$ 905,305	\$ 2,165,257	\$ 1,097,559	\$ 6,057,360
11	Other Revenue	25 \$ 2,983,390	\$ 1,648,339	\$ 863,780	\$ 350,558	\$ 93,567	\$ 9,549	\$ 17,597	\$ -
12	TOTAL Current Revenues	\$ 118,773,053	\$ 80,503,692	\$ 20,221,884	\$ 7,701,283	\$ 998,872	\$ 2,174,806	\$ 1,115,156	\$ 6,057,360
13	Current Revenue Percentage	100.00%	67.78%	17.03%	6.48%	0.84%	1.83%	0.94%	5.10%
14									
15	OPERATING INCOME	\$ 31,556,449	\$ 31,894,529	\$ (5,670,091)	\$ (1,798,550)	\$ (1,508,586)	\$ 1,917,904	\$ 663,884	\$ 6,057,360
16									
17	TOTAL Rate Base	\$ 278,015,073	\$ 140,367,794	\$ 70,153,455	\$ 31,100,728	\$ 8,553,919	\$ 863,806	\$ 1,785,285	\$ 25,190,085
18									
19	Spread public fire rate base to o	15 \$ 25,190,085	\$ 16,360,670	\$ 8,809,591	\$ 19,672	\$ 152	\$ -	\$ -	\$ (25,190,085)
20	TOTAL Rate Base after Spread	\$ 278,015,073	\$ 156,728,463	\$ 78,963,046	\$ 31,120,401	\$ 8,554,071	\$ 863,806	\$ 1,785,285	\$ -
21									
22	Implicit Rate of Return (ROR)	11.35%	20.35%	-7.18%	-5.78%	-17.64%	222.03%	37.19%	
23									
24	Operating Income with Equalized ROR	\$ 31,556,449	\$ 17,789,661	\$ 8,962,800	\$ 3,532,360	\$ 970,941	\$ 98,047	\$ 202,641	
25									
26	Class COS with Equalized ROR	\$ 118,773,053	\$ 66,398,824	\$ 34,854,774	\$ 13,032,193	\$ 3,478,398	\$ 354,950	\$ 653,913	
27	Class COS Percentage	100.00%	55.90%	29.35%	10.97%	2.93%	0.30%	0.55%	
28									
29	OPC Recommended ROR	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30									
31	Operating Income with Recommended ROR	\$ 20,712,123	\$ 11,676,271	\$ 5,882,747	\$ 2,318,470	\$ 637,278	\$ 64,354	\$ 133,004	
32	True-up plus add'l taxes	25 \$ (6,029,299)	\$ (3,331,221)	\$ (1,745,661)	\$ (708,462)	\$ (189,095)	\$ (19,299)	\$ (35,563)	
33	Class COS with Recommended ROR	\$ 101,899,427	\$ 56,954,213	\$ 30,029,061	\$ 11,109,841	\$ 2,955,641	\$ 301,957	\$ 548,713	
34	Class COS Percentage	100.00%	55.89%	29.47%	10.90%	2.90%	0.30%	0.54%	
		\$ (16,873,625)	\$ (9,444,611)	\$ (4,825,713)	\$ (1,922,352)	\$ (522,757)	\$ (52,992)	\$ (105,200)	

Office of the Public Counsel
MAWC Class Cost of Service Summary

St. Louis District

CLASS COST OF SERVICE SUMMARY:		TOTAL	Rate A and others	Rate B	Rate J & D	PRIVATE FIRE SERVICE	PUBLIC FIRE SERVICE
1	O & M Expenses	\$ 54,690,242	\$ 44,188,724	\$ 1,543,672	\$ 6,319,098	\$ 234,550	\$ 2,404,198
2	Depreciation Expenses	\$ 10,484,590	\$ 7,991,649	\$ 313,257	\$ 1,189,544	\$ 66,378	\$ 923,761
3	Taxes	\$ 22,041,772	\$ 16,781,001	\$ 668,466	\$ 2,499,296	\$ 138,200	\$ 1,954,809
4	TOTAL Expenses and Taxes	\$ 87,216,603	\$ 68,961,375	\$ 2,525,394	\$ 10,007,938	\$ 439,128	\$ 5,282,769
5							
6	Spread public fire expenses & tax	15 \$ 5,282,769	\$ 5,221,943	\$ 47	\$ 4,113	\$ 56,666	\$ -
7	TOTAL Expenses and Taxes after Spread	\$ 87,216,603	\$ 74,183,317	\$ 2,525,442	\$ 10,012,051	\$ 495,794	\$ 5,282,769
8							
9	Current Revenue						
10	Rate Revenue	\$ 115,789,663	\$ 98,213,457	\$ 905,305	\$ 9,515,982	\$ 1,097,559	\$ 6,057,360
11	Other Revenue	25 \$ 2,983,390	\$ 2,334,441	\$ 87,610	\$ 341,150	\$ 16,152	\$ 204,035
12	TOTAL Current Revenues	\$ 118,773,053	\$ 100,547,898	\$ 992,915	\$ 9,857,132	\$ 1,113,711	\$ 6,261,395
13	Current Revenue Percentage	100.00%	84.66%	0.84%	8.30%	0.94%	5.27%
14							
15	OPERATING INCOME	\$ 31,556,449	\$ 26,364,581	\$ (1,532,526)	\$ (154,918)	\$ 617,918	\$ 978,627
16							
17	TOTAL Rate Base	\$ 278,015,073	\$ 211,154,832	\$ 8,490,777	\$ 31,501,464	\$ 1,796,669	\$ 25,071,330
18							
19	Spread public fire rate base to othe	15 \$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	TOTAL Rate Base after Spread	\$ 278,015,073	\$ 211,154,832	\$ 8,490,777	\$ 31,501,464	\$ 1,796,669	\$ 25,071,330
21							
22	Implicit Rate of Return (ROR)	11.35%	12.49%	-18.05%	-0.49%	34.39%	3.90%
23							
24	Operating Income with Equalized ROR	\$ 31,556,449	\$ 23,967,394	\$ 963,756	\$ 3,575,613	\$ 203,933	\$ 2,845,753
25							
26	Class COS with Equalized ROR	\$ 124,055,821	\$ 98,150,711	\$ 3,489,198	\$ 13,587,664	\$ 699,727	\$ 8,128,521
27	Class COS Percentage	100.00%	79.12%	2.81%	10.95%	0.56%	6.55%
28							
29	OPC Recommended ROR	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%
30							
31	Operating Income with Recommended ROR	\$ 20,712,123	\$ 15,731,035	\$ 632,563	\$ 2,346,859	\$ 133,852	\$ 1,867,814
32	True-up plus add'l taxes	25 \$ (6,029,299)	\$ (4,717,803)	\$ (177,056)	\$ (689,450)	\$ (32,643)	\$ (412,346)
33	Class COS with Recommended ROR	\$ 107,182,196	\$ 85,196,549	\$ 2,980,948	\$ 11,669,460	\$ 597,002	\$ 6,738,236
34	Class COS Percentage	100.00%	79.49%	2.78%	10.89%	0.56%	6.29%
		\$ (16,873,625)	\$ (12,954,162)	\$ (508,250)	\$ (1,918,204)	\$ (102,725)	\$ (1,390,285)

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		\$ 946,968	\$ 481,577	\$ 158,776	\$ 32,101	\$ 148,316	\$ 82,680	\$ 7,178	\$ 36,341
2 Depreciation Expenses		\$ 250,001	\$ 122,207	\$ 42,130	\$ 8,411	\$ 35,313	\$ 22,502	\$ 3,567	\$ 15,871
3 Taxes		\$ 516,385	\$ 240,396	\$ 87,542	\$ 18,166	\$ 75,714	\$ 49,982	\$ 7,235	\$ 37,350
4 TOTAL Expenses and Taxes		\$ 1,713,355	\$ 844,180	\$ 288,449	\$ 58,678	\$ 259,343	\$ 155,164	\$ 17,980	\$ 89,561
5									
6 Spread public fire expenses & taxes t	15	\$ 89,561	\$ 78,947	\$ 8,503	\$ 184	\$ 1,927	\$ -	\$ -	\$ (89,561)
7 TOTAL Expenses and Taxes after Spread		\$ 1,713,355	\$ 923,126	\$ 296,951	\$ 58,862	\$ 261,270	\$ 155,164	\$ 17,980	\$ -
8									
9 Current Revenue									
10 Rate Revenue		\$ 2,470,660	\$ 1,252,537	\$ 469,810	\$ 77,275	\$ 408,331	\$ 209,250	\$ 53,457	\$ -
11 Other Revenue	25	\$ 54,043	\$ 27,731	\$ 9,701	\$ 1,991	\$ 8,617	\$ 5,340	\$ 663	\$ -
12 TOTAL Current Revenues		\$ 2,524,703	\$ 1,280,268	\$ 479,511	\$ 79,266	\$ 416,948	\$ 214,590	\$ 54,120	\$ -
13 Current Revenue Percentage		100.00%	50.71%	18.99%	3.14%	16.51%	8.50%	2.14%	0.00%
14									
15 OPERATING INCOME		\$ 811,348	\$ 357,141	\$ 182,560	\$ 20,403	\$ 155,678	\$ 59,425	\$ 36,140	\$ -
16									
17 TOTAL Rate Base		\$ 8,971,047	\$ 4,150,029	\$ 1,529,521	\$ 319,638	\$ 1,323,712	\$ 882,570	\$ 124,067	\$ 641,511
18									
19 Spread public fire rate base to others	15	\$ 641,511	\$ 565,484	\$ 60,903	\$ 1,320	\$ 13,805	\$ -	\$ -	\$ (641,511)
20 TOTAL Rate Base after Spread		\$ 8,971,047	\$ 4,715,513	\$ 1,590,424	\$ 320,957	\$ 1,337,516	\$ 882,570	\$ 124,067	\$ -
21									
22 Implicit Rate of Return (ROR)		9.04%	7.57%	11.48%	6.36%	11.64%	6.73%	29.13%	
23									
24 Operating Income with Equalized ROR		\$ 811,348	\$ 426,474	\$ 143,839	\$ 29,028	\$ 120,966	\$ 79,820	\$ 11,221	
25									
26 Class COS with Equalized ROR		\$ 2,524,703	\$ 1,349,601	\$ 440,790	\$ 87,890	\$ 382,236	\$ 234,985	\$ 29,201	
27 Class COS Percentage		100.00%	53.46%	17.46%	3.48%	15.14%	9.31%	1.16%	
28									
29 OPC Recommended ROR		7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	7.45%	
30									
31 Operating Income with Recommended ROR		\$ 668,343	\$ 351,306	\$ 118,487	\$ 23,911	\$ 99,645	\$ 65,751	\$ 9,243	
32 True-up plus add'l taxes	25	\$ (74,473)	\$ (38,214)	\$ (13,369)	\$ (2,743)	\$ (11,875)	\$ (7,358)	\$ (914)	
33 Class COS with Recommended ROR		\$ 2,307,224	\$ 1,236,218	\$ 402,069	\$ 80,031	\$ 349,040	\$ 213,557	\$ 26,309	
34 Class COS Percentage		100.00%	53.58%	17.43%	3.47%	15.13%	9.26%	1.14%	
		\$ (217,479)	\$ (113,383)	\$ (38,722)	\$ (7,859)	\$ (33,196)	\$ (21,427)	\$ (2,892)	