Exhibit No.: _____
Issue(s): Class Cost of Service/Rate Design
Witness/Type of Exhibit: Meisenheimer/Direct
Sponsoring Party: Public Counsel
Case No.: WR-2010-0131

DIRECT TESTIMONY

OF

BARBARA A. MEISENHEIMER

Submitted on Behalf of
the Office of the Public Counsel

MISSOURI AMERICAN WATER COMPANY

Case No. WR-2010-0131

March 26, 2010

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's Request for Authority to Implement a General Rate Increase for Water and Sewer Service Provided in Missouri Service Areas.	)))))	**Case No. WR-2010-0131**

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 a 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 affidavit are true and correct to the best of my knowledge and belief.

Barbara A. Meisenheimer

Subscribed and sworn to me this 26th day of March 2010.

NOTARY PUBLIC NOTARY SEAL STATE OF MISSOURI

SHYLAH C. BROSSIER
My Commission Expires
June 8, 2013
Cole County
Commission #09812742

Shylah C. Brossier
Notary Public

My commission expires June 8th, 2013.

DIRECT TESTIMONY
OF
BARBARA A. MEISENHEIMER

MISSOURI AMERICAN WATER COMPANY

CASE NO. WR-2010-0131

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

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

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND.

A. I hold a Bachelor of Science degree in Mathematics from the University of Missouri-Columbia (UMC) and have completed the comprehensive exams for a Ph.D. in Economics from the same institution. My two fields of study are Quantitative Economics and Industrial Organization. My outside field of study is Statistics. I have taught economics courses for the University of Missouri-Columbia, William Woods University, and Lincoln University, mathematics for the University of Missouri-Columbia and statistics for William Woods University.

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE COMMISSION?

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

Q. WHAT IS YOUR PREVIOUS EXPERIENCE IN THE PREPARATION OF CLASS COST OF SERVICE STUDIES?

A. I have prepared or supervised the preparation of cost studies on behalf of Public Counsel for over 14 years. These include class cost of service studies related to natural gas, water and electric utilities, and cost studies related to telecommunications services.

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

A. Yes. I testified on class cost of service and rate design issues in the last three Missouri American rate cases WR-2003-0500, WR-2007-0216, and WR-2008-0311.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

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

I. RATE DESIGN

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

A. A CCOS study provides the Commission with a general guide as to the just and reasonable rate for the provision of service that corresponds to costs. In addition, other factors are also relevant considerations when determining the appropriate rate for a service, including the value of a service, affordability, rate impact, and rate continuity, etc. The determination as to the manner in which the results of a cost of service study and all the other factors are balanced in setting rates can only be determined on a case-by-case basis.

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

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

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

A. With respect to shifts between districts, the Commission decided in its Report and Order in WR-2000-281 to move away from single tariff pricing (a single company-wide tariff that would apply to each class) toward district specific pricing. The Commission approved additional movement toward district specific pricing in WR-2003-0500, WR-2007-216, and WR-2008-0311. Although in some cases parties have reached agreement and offered joint proposals on district cost and rate design, these proceedings have been extremely contentious in part due to a long history of alleged subsidies between and within districts.

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

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

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

A. Yes.

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

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

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

A. Schedule BAM-1 provides a detailed summary of the preliminary results of my study for each district. Table 1 illustrates each customer class's share of cost and the class's share of revenue if costs were based on an equalized rate of return:

TABLE 1

Percentage of Current Cost at Equalized Return and Percentage of Current Rate Revenue by Customer Class

		TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE
Jefferson City	Cost %		51.55%	28.83%	9.78%	8.22%		1.62%
	Revenue %		51.84%	27.71%	10.02%	7.64%		2.80%
Brunswick	Cost %		55.51%	17.70%	0.12%	2.36%	24.11%	0.19%
	Revenue %		56.47%	17.08%	0.57%	2.59%	20.24%	3.05%
Joplin	Cost %		47.71%	22.84%	18.29%	3.22%	4.74%	3.21%
	Revenue %		49.55%	20.75%	20.80%	2.80%	3.35%	2.74%
Mexico	Cost %		47.57%	13.94%	14.99%	7.06%	14.04%	2.40%
	Revenue %		47.95%	13.78%	15.36%	7.04%	11.98%	3.89%
Parkville	Cost %		67.42%	20.15%	0.80%	1.69%	6.63%	3.32%
	Revenue %		69.04%	22.01%	0.41%	1.17%	4.41%	2.96%
St. Joseph	Cost %		44.45%	15.69%	25.70%	3.25%	10.22%	0.69%
	Revenue %		42.72%	16.41%	28.09%	3.21%	8.53%	1.04%
Warrensburg	Cost %		58.55%	15.39%	2.23%	11.53%	9.02%	3.28%
	Revenue %		54.65%	19.82%	2.48%	12.28%	8.02%	2.75%
			RES COM OPA Rate A & K	INDUSTRIAL Rate J	OTHER WATER UTILITIES Rate B, G & H			PRIVATE FIRE Rate E & F
St Louis	Cost %		92.72%	3.43%	1.92%			1.93%
	Revenue %		91.27%	4.24%	3.29%			1.19%

Table 2 illustrates the percentage change in rate revenue necessary to achieve an equalized return:

TABLE 2

Revenue Neutral Shift to Equalize Current Rate of Return by Customer Class							
	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE
Jefferson City	Shift %	-0.55%	4.07%	-2.42%	7.58%		-42.19%
Brunswick	Shift %	-1.69%	3.67%	-78.32%	-8.83%	19.12%	-93.84%
Joplin	Shift %	-3.72%	10.05%	-12.07%	14.82%	41.39%	16.93%
Mexico	Shift %	-0.80%	1.16%	-2.40%	0.30%	17.26%	-38.38%
Parkville	Shift %	-2.35%	-8.46%	94.69%	44.26%	50.28%	12.24%
St. Joseph	Shift %	4.04%	-4.38%	-8.52%	1.39%	19.81%	-33.54%
Warrensburg	Shift %	7.14%	-22.33%	-9.98%	-6.16%	12.47%	19.28%
		RES COM OPA Rate A & K	INDUSTRIAL Rate J	SALE FOR RESALE Rate B, G & H			PRIVATE FIRE Rate E & F
St Louis	Shift %	1.58%	-19.11%	-41.72%			62.04%

Q. WHAT ARE PUBLIC COUNSEL'S PRELIMINARY RATE DESIGN RECOMMENDATIONS?

A. Based on my initial results, I recommend that the Commission move customer classes toward district specific cost of service by first implementing a revenue neutral shift among classes and second spreading any net increase or decrease in district revenue to the classes as an equal percentage. I also recommend that the Commission cap class increases resulting from revenue neutral shifts in order to mitigate the combined impact of a large district increase coupled with interclass increases. For example, Table 3 illustrates the revenue neutral shifts that would result from one-half the revenue neutral increase indicated by my class cost of service with a cap on revenue neutral increases of 5% of a class's current revenue:

TABLE 3

Proposed Maximum Revenue Neutral Shift by Customer Class							
	TOTAL	RESIDENTIAL	COMMERCIAL	INDUSTRIAL	OTHER PUBLIC AUTHORITY	SALES FOR RESALE	PRIVATE FIRE SERVICE
Jefferson City	Shift %	-0.27%	2.04%	-1.21%	3.79%		-21.09%
Brunswick	Shift %	-0.85%	1.83%	-17.33%	-4.42%	5.00%	-20.76%
Joplin	Shift %	-1.27%	5.00%	-4.11%	5.00%	5.00%	5.00%
Mexico	Shift %	-0.40%	0.58%	-1.20%	0.15%	5.00%	-8.02%
Parkville	Shift %	-0.30%	-1.09%	5.00%	5.00%	5.00%	5.00%
St. Joseph	Shift %	2.02%	-1.77%	-3.45%	0.69%	5.00%	-5.00%
Warrensburg	Shift %	3.57%	-10.02%	-4.99%	-3.08%	5.00%	5.00%
		RES COM OPA Rate A & K	INDUSTRIAL Rate J	SALE FOR RESALE Rate B, G & H			PRIVATE FIRE Rate E & F
St Louis	Shift %	0.79%	-6.84%	-14.93%			5.00%

Under my recommendation, each customer class would be adjusted by the revenue neutral shift shown in Table 3 and then by the net percentage increase or decrease approved by the Commission for the class's district.

Q. HAVE YOU DETERMINED A LEVEL OF COSTS THAT COULD REASONABLY BE RECOVERED IN THE CUSTOMER CHARGE?

A. Yes. Table 4 identifies a maximum level of costs for the Residential and small Commercial classes that could reasonably be recovered in the customer charge:

Table 4

Class Cost of Service Study Customer Charge Cost				
	RESIDENTIAL (Monthly)	RESIDENTIAL (Quarterly)	COMMERCIAL (Monthly)	COMMERCIAL (Quarterly)
Jefferson City	$ 3.96	$ 11.87	$ 6.71	$ 20.13
Brunswick	$ 13.20	$ 39.61	$ 14.90	$ 44.71
Joplin	$ 7.01	$ 21.02	$ 9.39	$ 28.18
Mexico	$ 9.61	$ 28.83	$ 12.19	$ 36.56
Parkville	$ 8.18	$ 24.53	$ 18.24	$ 54.71
St. Joseph	$ 4.64	$ 13.92	$ 6.49	$ 19.46
Warrensburg	$ 6.69	$ 20.06	$ 8.13	$ 24.40

	RES COM OPA Rate A & K (Monthly)	RES COM OPA Rate A & K (Quarterly)
St Louis	$ 3.05	$ 9.14

II. CLASS COST OF SERVICE STUDY METHOD

Q. WHAT IS THE PURPOSE OF YOUR CLASS COST OF STUDY?

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

- Base Costs vary with the total quantity of water used under average use at an average rate. These costs include certain facilities costs and O&M expenses of supply, treatment, pumping, and distribution facilities.

- Extra capacity costs are associated with use requirements in excess of average. These costs include facilities costs, O&M expenses and capital costs for system capacity in excess of average. These costs were further subdivided based on the maximum-day extra demand and maximum-hour demand.

- Customer costs vary directly with the number of customers, not the amount or rate of water used. The cost of meter reading, billing, accounts and collections expense, and facilities costs and expenses related to meters and services are generally treated as customer related costs.

- Fire costs are directly attributable to providing both private and public fire services. These costs include facilities costs and expenses related to providing hydrants and fire lines.

The final step in my study apportioned the "functionalized and classified" costs to each customer class based on allocation factors reflective of the classification. For example, I used average use by class to allocate Base Costs. I used a max day factor and a max hour factor to allocate Excess Capacity costs. An example of a customer related allocation is that I used a weighted allocator of meters actually used by each class to allocate the total district meter costs to the class. I have provided an electronic copy of my workpapers to the parties. The workpapers provide a full breakdown of the functionalization and classification of costs as well as formulaic links to the calculations and sources of information I used to complete each district study.

Q. WHAT CUSTOMER CLASSES DID YOU USE?

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

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

A. Data used for this study includes MAWC workpapers filed in support of its direct case, MAWC responses to Staff's data requests, and Staff Accounting data in this case.

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

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

Because mains are used to satisfy base and peak demand, there is no clear separation between these two cost categories with respect to constant and peaking needs. To apportion cost between average and peak use, I used a "weighted factor" that reflects average day, max day, and peak hour demands.

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

A. I used methods similar to those used by Staff in past cases to develop my Base and Excess Capacity allocator for Transmission and Distributions Mains as well as other demand related allocators. However, I adjusted the results to accommodate some of the points made by the Company regarding a reduction in the allocation of the cost of smaller mains to large customers in the Joplin, St Joseph and St Louis districts. The adjustments I made are reflected in reduced allocation factors that were provided to the other parties in my workpapers.

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

A. The allocators were developed in order to reflect the differences in costs of furnishing service to the different classes. Plant expenses were allocated on the same basis as Plant accounts. Customer related allocators such those for allocating the costs of meters and service accounts were developed using weights to reflect the fact that there are generally greater costs associated with serving a bigger customer than a smaller customer.

Q. PLEASE DESCRIBE HOW YOU ALLOCATED VARIOUS PLANT ACCOUNTS.

A. Investment in source of supply was allocated based on Base Day allocations by rate class. This recognizes the fact that such facilities are sized to meet the base supply requirements.

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

Distribution reservoir and standpipes serve principally to assist in meeting the peak requirements of the system and to provide some element of system reliability. These items were allocated based on a Storage allocator that reflects regular system load and peak load, with a greater weight given to the peak load.

Transmission and Distribution Mains were allocated based on Base Day, Max Day, and Max Hour factors. The factors for Industrial and Sale for Resale customers in Joplin, St Joseph, and St Louis were reduced to reflect customer use.

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

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

Q. HOW WERE OPERATION AND MAINTENANCE EXPENSES ALLOCATED?

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

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

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

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

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

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

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

A. Property taxes were allocated on the basis of the amount of gross plant that I had previously allocated to each class. Taxes related to the workforce were allocated based on Labor. Other taxes in this category were allocated on the basis of rate base.

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

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

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.