

**MISSOURI PUBLIC SERVICE COMMISSION**

**STAFF REPORT**  
**COST OF SERVICE**

**APPENDIX 3**  
**Alphabetical Listing of Testimony Schedules**

**MISSOURI-AMERICAN WATER COMPANY**

**CASE NO. WR-2011-0337**

**MISSOURI AMERICAN WATER COMPANY**  
**Staff Recommended SCHEDULE of DEPRECIATION RATES Case WR-2011-0337**  
**Same as Ordered Rates from Case WR-2010-0131**

**DIVISIONS: ALL , Including former Aqua, Loma Linda, and Roark**

NARUC USOA ACCOUNT NUMBER	ACCOUNT DESCRIPTION	% DEPRECIATION RATE	AVERAGE SERVICE		% NET SALVAGE
			LIFE (YEARS)	IOWA CURVE	
<b>Source of Supply</b>					
311.0	Structures & Improvements	2.36	55	R4	-30
312.0	Collecting & Impoundment Reservoirs	1.25	80	R2.5	0
313.0	Lake, River & Other Intakes	1.77	65	R1.5	-15
314.0	Wells & Springs	1.82	55	R2.5	0
315.0	Infiltration Galleries and Tunnels	1.67	60	R2.5	0
316.0	Supply Mains	1.79	70	R3	-25
317.0	Miscellaneous Source of Supply - Other	4.00	25	SQ	0
<b>Pumping Plant</b>					
321.0	Structures & Improvements	1.80	75	R2.5	-35
322.0	Boiler Plant Equipment	2.22	45	R4	0
323.0	Power Generation Equipment	2.00	50	R3	0
324.0	Steam Pumping Equipment	2.62	42	R1.5	-10
325.0	Electric Pumping Equipment	2.62	42	R1.5	-10
326.0	Diesel Pumping Equipment	2.62	42	R1.5	-10
327.0	Hydraulic Pumping Equipment	2.62	42	R1.5	-10
328.0	Other Pumping Equipment	2.62	42	R1.5	-10
<b>Water Treatment Plant</b>					
331.0	Structures & Improvements	1.69	80	R3	-35
332.0	Water Treatment Equipment	2.89	45	R2.5	-30
333.0	Miscellaneous Water Treat, Other	3.33	30	SQ	0
<b>Transmission and Distribution</b>					
341.0	Structures & Improvements	2.40	50	R2.5	-20
341.1	Structures & Improve - Special Crossing	N/A	N/A	N/A	N/A
342.0	Distribution Reservoirs & Standpipes	2.25	60	R3	-35
343.0,1,2,3	Transmission & Distribution Mains	1.39	90	R2.5	-25
344.0	Fire Mains	1.56	80	S1	-25
345.0	Customer Services	2.92	65	S0.5	-90
346.0	Customer Meters	2.40	40	R1	4
347.0	Customer Meter Pits & Installation	2.40	40	R1	4
348.0	Fire Hydrants	1.85	65	R1.5	-20
349.0	Misc Trans & Dist - Other	2.00	50	R3	0
<b>General Plant</b>					
390.0	Structures & Improve - Shop & Garage	2.40	50	R3	-20
390.9	Structures & Improve - Leasehold	5.00	20	R4	0
391.0	Office Furniture	5.00	20		0
391.1	Computer & Peripheral Equipment	20.00	5		0
391.2	Computer Hardware & Software	20.00	5		0
391.3	Other Office Equipment	6.67	15		0
392.1	Transportation Equipment - Light trucks	11.25	8	L1.5	10
392.2	Transportation Equipment - Heavy trucks	10.00	9	L2	10
392.3	Transportation Equipment - Autos	18.00	5	L2	10
392.4	Transportation Equipment - Other	5.67	15	S2.5	15
393.0	Stores Equipment	4.00	25		0
394.0	Tools, Shop, Garage Equipment	5.00	20		0
395.0	Laboratory Equipment	6.67	15		0
396.0	Power Operated Equipment	7.73	11	L1.5	15
397.1	Communication Equip - Non Telephone	6.67	15		0
397.2	Communication Equip - Telephone	10.00	10		0
398.0	Miscellaneous Equip	6.67	15		0
399.0	Other Tangible Equipment	5.00	20		0

# MISSOURI AMERICAN WATER COMPANY- Sewer

Staff Recommended **SCHEDULE of DEPRECIATION RATES Case SR-2011-0338** (These recommended rates are intended to be consistent across all sewer divisions, and consistent between water and sewer for general plant)

## DIVISIONS: All, including former Aqua, Roark, and Loma Linda

NARUC ACCOUNT NUMBER	ACCOUNT DESCRIPTION	% DEPRECIATION RATE	AVERAGE SERVICE LIFE (YEARS)	Curves	% NET SALVAGE
<b>COLLECTION PLANT</b>					
351	Structures & Improvements	2.50%	40		
352.1	Collection Sewers (Force)	2.00%	50		
352.2	Collection Sewers (Gravity)	2.00%	50		
353	Services To Customers	2.00%	50		
356	Other Collection Equipment	2.00%	50		
<b>PUMPING PLANT</b>					
361	Structures & Improvements	2.50%	40		
362	Receiving Wells	4.00%	25		
363	Electric Pumping Equip, (Includes Generators)	10.00%	10		
364	Diesel Pumping Equipment	10.00%	10		
365	Other Pumping Equipment	10.00%	10		
<b>TREATMENT &amp; DISPOSAL PLANT</b>					
371	Structures & Improvements Treatment & Disposal Equipment,	2.50%	40		
372	(Includes pumps, blowers, generators)	5.00%	20		
373	Plant Sewers	2.00%	50		
374	Outfall Sewer Lines	2.00%	50		
<b>General Plant</b>					
390.0	Structures & Improve - Shop & Garage	2.40	50	R3	-20
390.9	Structures & Improve - Leasehold	5.00	20	R4	0
391.0	Office Furniture	5.00	20		0
391.1	Computer & Peripheral Equipment	20.00	5		0
391.2	Computer Hardware & Software	20.00	5		0
391.3	Other Office Equipment	6.67	15		0
392.1	Transportation Equipment - Light trucks	11.25	8	L1.5	10
392.2	Transportation Equipment - Heavy trucks	10.00	9	L2	10
392.3	Transportation Equipment - Autos	18.00	5	L2	10
392.4	Transportation Equipment - Other	5.67	15	S2.5	15
393.0	Stores Equipment	4.00	25		0
394.0	Tools, Shop, Garage Equipment	5.00	20		0
395.0	Laboratory Equipment	6.67	15		0
396.0	Power Operated Equipment	7.73	11	L1.5	15
397.1	Communication Equip - Non Telephone	6.67	15		0
397.2	Communication Equip - Telephone	10.00	10		0
398.0	Miscellaneous Equip	6.67	15		0
399.0	Other Tangible Equipment	5.00	20		0

# Depreciation Appendix

---

## History

Staff and MAWC conducted a depreciation study in one of MAWC's prior rate cases, Case No. WR-2008-0311. The study conducted included the water utility equipment, but not the sewer utility equipment. The retirement history used in the study included data through December 31, 2008. For water, the ordered depreciation rates assigned consistent depreciation rates to all MAWC water divisions existing at the time of the Report and Order. For sewer, this prior rate case assigned the standard small sewer company depreciation rates with the exception of the General Accounts which were not listed on the sewer company depreciation rate schedule.

Staff's recommended rates in this case are based on MAWC's past plant retirement history, with influence from retirement histories of similar utility companies and future plant operation expectations. Staff's objective in recommending rates is to match (1) the rate of money collection from ratepayers with (2) a straight line estimate of the life time cost of the plant utilized to provide the service.<sup>1</sup>

---

<sup>1</sup>

1. The book keeping associated with regulatory depreciation expense is to:
  - a) Allocate and record the money collected from ratepayers for depreciation purposes to specific plant accounts,
  - b) Account for the consumption of the invested capital as plant equipment is retired from service,
  - c) Account for the cost of removal, salvage value received, and any third party payments such as insurance proceeds,
  - d) Provide a continuous and consistent method of recording of the above listed costs as a historical record for use in future depreciation analysis.
2. The cost of plant in service is recorded as the original installed cost. The installed cost of plant includes costs other than just labor and materials, it also includes costs such as project planning, engineering, sales taxes, transportation, insurance and cost of funds provided during construction, supervision, and all associated overhead costs. This original cost of plant in service stays with the equipment until it is retired from utility service. A transfer of ownership by the Company to another company or set of investors does not alter this cost, regardless of the amount of money paid by the new owners to attain ownership.
3. Only by order of the Commission may the cost of plant in service, the accumulated depreciation reserve, the depreciation rates, or the recording of depreciation expense be modified. Depreciation expense continues to be recorded and accumulated per Commission order until altered by a subsequent Commission order, even if the plant account in question is considered to be fully depreciated.

## Definitions

Depreciation: NARUC USOA Water Class A&B 1973, Depreciation." as applied to depreciable utility plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and requirements of public authorities.

### Basic Formulas for Depreciation of Living Accounts:

Depreciation expense = (Depreciation Rate) \* (Total Original Cost of Plant in Service)

$$\text{Rate \%} = \frac{100 - (\text{Net Salvage \%})}{\text{ASL}} = \frac{100}{\text{ASL}} - \frac{\text{Net Salvage \%}}{\text{ASL}}$$

Average Service Life (ASL) is the average number of years the property in the account is expected to remain in service. ASL is usually determined using past retirement history within a depreciation study.

Net Salvage: Salvage value minus the cost of removal.

Net Salvage = gross salvage - cost of removal

$$\text{Net Salvage \%} = \frac{\text{Net Salvage \$}}{\text{Retirement \$}} * 100$$

- 
4. Depreciation expense is calculated as a percent of total plant in service for each plant account.
  5. The cost of installed plant is recorded as plant in service on the date the equipment in question is used to provide the utility service.
  6. The recorded cost of plant in service is independent of the source of funds used to pay for the installed plant. The source of funds may be from investors, loans, insurance proceeds, ratepayer or third party contributors, or simply still be accounts payable. The regulatory accounting system outside of the plant in service and depreciation section is used to address these issues.

Terminal versus Interim Net Salvage: Terminal net salvage occurs when an entire facility is removed from service. Interim net salvage occurs when a component of a facility is removed or replaced. When it is expected that the interim net salvage rate is a reasonable approximation for the terminal net salvage rate, it is sufficient to use the single (Net Salvage % / ASL) term, as shown above to represent both. Under the above traditional depreciation rate equation, the depreciation rate is applied to the entire facility original cost. The total current plant in service will at some point be retired, thus over the life of a plant facility, net salvage is collected for the total plant in service, and thus total reserves at planned facility retirement are expected to exceed the original cost of plant by the estimated amount required for cost of removal.

Cost of Removal: The cost associated with dismantling, removing, storing, decontaminating, and disposing of a retired unit of property.

Living Accounts: Groups of property which may experience interim retirements, but for which retired property is expected to be replaced by comparable property, with or without improvements in technology. (Often considered equivalent to the term Mass Property)

Mass Property: Continuous living group of property where routine replacements occur.

Remaining Life: Straight line depreciation over composite remaining life with corrections for existing accumulated reserves imbalances.

Whole Life: Straight line depreciation over composite life without any correction for existing accumulated reserve imbalances.

## **Site Visits**

In connection with this case, Staff visited several MAWC facilities. In general, the facilities and equipment observed appeared well engineered, well maintained, of recent vintage, fenced for security, in good operating condition, and with safety and environmental practices in

place. Exceptions to this were the Parkville water treatment plant, and some of the Jefferson City waste water treatment facilities.

The Parkville treatment plant was found to be functioning and producing water for customers. The water treatment facility capacity is inadequate to meet the Parkville district customer demand, thus the system is augmented with water from the Kansas City municipal water system.

### **MAWC Overall Depreciation rate**

The effective overall plant depreciation rate proposed by Staff is 2.03% for the water company assets and 4.02% for the sewer company assets. The sewer company assets represent 1.06% of overall plant, resulting in the overall company depreciation rate of 2.04%

### **MAWC Accumulated Depreciation Reserves**

Staff reviewed individual plant accounts for over or under accrual of depreciation reserves. Staff found apparent excessive over or under depreciation accruals in some specific plant accounts for individual Company divisions. Staff submitted data requests to the Company on November 7, 2011, to inquire into the reasons for these apparent deficiencies. Staff has not received Company responses to these requests because they were not yet due when this report was filed. Staff reviewed MAWC's accumulated depreciation reserves as follows:

1. Staff revisited the Company depreciation study submitted for the prior rate case (Case No. WR-2008-0131) to compare overall Company book reserves versus theoretical reserves. This depreciation study used Company records through December 31, 2008. Staff used an estimation process to update the theoretical reserves for comparison to Company book reserves at December 31, 2010.

2. Staff reviewed depreciation reserves by plant account, comparing the accumulated depreciation to plant in service. This was conducted for each Company division (all 26 Staff EMS accounting runs).

The comparison of overall book reserve to theoretical (calculated) reserve is shown in the following table. The plant in service and reserves shown in this table will not match the Company or the Staff accounting runs because this table represents only depreciable accounts. Accounts such as land and land rights (which may have separate amortizations) are not included.

Method	Dec. 31 2008		Dec. 31 2010	
	Plant	Reserves	Plant	Reserves
Company book:	\$1,357,332,031	\$329,975,805	\$1,517,452,141	\$376,851,741
Company Calculated Reserves:		\$314,914,117		NA
PSC Staff Calculated Reserves:		\$310,851,485		\$371,549,571
Book Reserves as % of Plant	24.3%		24.8%	

This table shows excess accumulated depreciation reserves of \$5 to 20 million, or approximately 1% of current plant in service.

Theoretical reserves are computed using current depreciation rate estimates and applying these rates to the known life history of current plant in service for each account. The life history for each account is normally only updated for a depreciation study, and thus the theoretical reserves are normally only available for the date the depreciation study is conducted. For the evaluation shown above, plant history of additions and retirements through December 31, 2008 was used. Staff used an estimation process to update theoretical reserves through December 31, 2010.



## **Aggregated Depreciation Rates**

In any plant account, the average service life is just that, an average. No one item in the account is expected to actually match that life, yet all items in the account are assigned the same depreciation rate. This is also true regardless of the item's physical location, that is, the equipment in an account in any one facility or district is not expected to actually match that life exactly. In recognition of this, it is neither necessary nor appropriate to split out depreciation requirements for the Parkville facility, when in the aggregate; the Company has more than adequate retirement reserves.

**Missouri-American Water Company  
Case No. WR-2011-0337**

**Usage Per Customer- Residential (Gallons)**

**BRUNSWICK**

per day 106.00  
per month 3224.17  
per year 38690.00

**MEXICO**

per day 134.75  
per month 4098.65  
per year 49183.75

**PLATTE CO**

per day 226.25  
per month 6881.77  
per year 82581.25

**WARRENSBURG**

per day 149.75  
per month 4554.90  
per year 54658.75

**JEFFERSON CITY**

per day 146.5  
per month 4456.04  
per year 53472.50

**ST. CHARLES**

per day 239.25  
per month 7277.19  
per year 87326.25

**WARREN CO**

per day 184.25  
per month 5604.27  
per year 67251.25

**ST. JOSEPH**

per day 155.75  
per month 4737.40  
per year 56848.75

**JOPLIN**

per day 171.25  
per month 5208.85  
per year 62506.25

**ST. LOUIS-QUARTERLY**

per day 234.5  
per month 7132.71  
per year 85592.50

**Missouri American Water Company (MAWC)  
Staff's Corporate Allocation Factors**

MAWC District			Total Customers				Total Number of Bills	
			Monthly	Quarterly	Total	Factor		Factor
MAWC WATER	Brunswick	BRU	472	0	472	0.100%	5,664	0.189%
	Jefferson City	JFC	12,578	0	12,578	2.672%	150,936	5.038%
	Joplin	JOP	28,407	0	28,407	6.035%	340,884	11.378%
	Mexico	MEX	5,716	0	5,716	1.214%	68,592	2.289%
	Parkville Water	PKW	6,864	0	6,864	1.458%	82,368	2.749%
	St. Joseph	SJO	37,339	0	37,339	7.933%	448,068	14.956%
	St. Louis Metro	SLM	32,692	331,545	364,237	77.383%	1,718,484	57.360%
	Warrensburg	WAR	8,228	0	8,228	1.748%	98,736	3.296%
	Warren County Water	WCW	442	0	442	0.094%	5,304	0.177%
MAWC SEWER	Cedar Hill	CDH	632	0	632	0.134%	7,584	0.253%
	Parkville Sewer	PKS	105	0	105	0.022%	1,260	0.042%
	Warren County Sewer	WCS	419	0	419	0.089%	5,028	0.168%
OTHER ACQUIRED WATER	Roark Water	RW	690	0	690	0.147%	8,280	0.276%
	Loma Linda	LL	334	0	334	0.071%	4,008	0.134%
OTHER SEWER	Roark Sewer	RWW	636	0	636	0.135%	7,632	0.255%
AQUA WATER	Maplewood - Lake Carmel	MWLC	437	0	437	0.093%	5,244	0.175%
	Rankin Acres	RA	86	0	86	0.018%	1,032	0.034%
	Riverside Estates	RE	284	0	284	0.060%	3,408	0.114%
	Spring Valley	SV	104	0	104	0.022%	1,248	0.042%
	Ozark Mountain	OMT	389	0	389	0.083%	4,668	0.156%
	Lakewood Manor	LWM	36	0	36	0.008%	432	0.014%
	Lake Taneycomo	LT	99	0	99	0.021%	1,188	0.040%
	White Branch	WB	146	0	146	0.031%	1,752	0.058%
AQUA SEWER	Jefferson City Sewer	JCWW	1,604	0	1,604	0.341%	19,248	0.642%
	Ozark Meadows	OMWW	24	0	24	0.005%	288	0.010%
	Maplewood Sewer	MPWW	386	0	386	0.082%	4,632	0.155%
Total			<u>139,149</u>	<u>331,545</u>	<u>470,694</u>	100.000%	<u>2,995,968</u>	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			Other Revenues Source of Supply - All accounts Pumping - All accounts Call Centers - All accounts Account 903.2, Contract & Order Labor Account 907, Service & Information			Account 902, Meter Reading Account 903.3, Collecting Expense Account 903.5, Billing & Accounting Expense Account 903.6, Billing & Accounting Labor Account 904 Uncollectible Accounts		

**Missouri American Water Company (MAWC)  
Staff's Corporate Allocation Factors**

MAWC District			Corporate Customer Accounting Composite				Length of Mains (feet)	
			Labor	Non-Labor	Total	Factor		Factor
MAWC WATER	Brunswick	BRU	3,603	3,903	7,506	2.634%	75,618	0.229%
	Jefferson City	JFC	991	16,693	17,684	6.206%	828,852	2.505%
	Joplin	JOP	19,586	5,668	25,254	8.863%	2,560,457	7.738%
	Mexico	MEX	0	5,640	5,640	1.979%	477,467	1.443%
	Parkville Water	PKW	0	2,834	2,834	0.995%	480,332	1.452%
	St. Joseph	SJO	37,890	19,192	57,082	20.034%	3,265,307	9.868%
	St. Louis Metro	SLM	32,729	59,131	91,860	32.240%	24,394,687	73.721%
	Warrensburg	WAR	7,296	11,028	18,324	6.431%	557,803	1.686%
	Warren County Water	WCW	0	0	0	0.000%	61,473	0.186%
MAWC SEWER	Cedar Hill	CDH	194	2,353	2,547	0.894%	0	0.000%
	Parkville Sewer	PKS	0	0	0	0.000%	0	0.000%
	Warren County Sewer	WCS	0	0	0	0.000%	0	0.000%
OTHER ACQUIRED WATER	Roark Water	RW	0	0	0	0.000%	43,817	0.132%
	Loma Linda	LL	0	0	0	0.000%	75,932	0.229%
OTHER SEWER	Roark Sewer	RWW	0	0	0	0.000%	0	0.000%
AQUA WATER	Maplewood - Lake Carmel	MWLC	6,082	496	6,578	2.309%	34,450	0.104%
	Rankin Acres	RA	3,092	90	3,182	1.117%	9,308	0.028%
	Riverside Estates	RE	3,811	361	4,172	1.464%	33,464	0.101%
	Spring Valley	SV	4,632	135	4,767	1.673%	9,965	0.030%
	Ozark Mountain	OMT	5,137	451	5,588	1.961%	134,907	0.408%
	Lakewood Manor	LWM	3,066	45	3,111	1.092%	9,145	0.028%
	Lake Taneycomo	LT	3,294	143	3,437	1.206%	11,900	0.036%
	White Branch	WB	3,523	180	3,703	1.300%	25,568	0.077%
AQUA SEWER	Jefferson City Sewer	JCWW	13,659	2,198	15,857	5.565%	0	0.000%
	Ozark Meadows	OMWW	2,636	166	2,802	0.983%	0	0.000%
	Maplewood Sewer	MPWW	2,531	469	3,000	1.053%	0	0.000%
Total			<u>153,752</u>	<u>131,176</u>	<u>284,928</u>	100.000%	<u>33,090,452</u>	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			Account 901, Supervision Account 905, Miscellaneous			All Transmission & Distribution Expense		

**Missouri American Water Company (MAWC)  
Staff's Corporate Allocation Factors**

MAWC District			Labor Composite				Labor Excluding St. Louis, etc.	
			Total	Corp A&G	Difference	Factor		Factor
MAWC WATER	Brunswick	BRU	\$125,225	\$9,315	\$115,910	0.507%	\$115,910	2.097%
	Jefferson City	JFC	\$1,000,919	\$74,457	\$926,462	4.049%	\$0	0.000%
	Joplin	JOP	\$1,726,670	\$128,444	\$1,598,226	6.985%	\$1,598,226	28.914%
	Mexico	MEX	\$367,342	\$27,326	\$340,016	1.486%	\$340,016	6.151%
	Parkville Water	PKW	\$262,528	\$19,529	\$242,999	1.062%	\$242,999	4.396%
	St. Joseph	SJO	\$1,995,510	\$148,443	\$1,847,068	8.072%	\$1,847,068	33.416%
	St. Louis Metro	SLM	\$18,173,516	\$1,351,897	\$16,821,619	73.515%	\$1,058,198	19.144%
	Warrensburg	WAR	\$346,973	\$25,811	\$321,162	1.404%	\$321,162	5.810%
	Warren County Water	WCW	\$58,112	\$4,323	\$53,789	0.235%	\$0	0.000%
MAWC SEWER	Cedar Hill	CDH	\$110,769	\$8,240	\$102,529	0.448%	\$0	0.000%
	Parkville Sewer	PKS	\$4,182	\$311	\$3,871	0.017%	\$3,871	0.070%
	Warren County Sewer	WCS	\$132,109	\$9,827	\$122,282	0.534%	\$0	0.000%
OTHER ACQUIRED WATER	Roark Water	RW	\$0	\$0	\$0	0.000%	\$0	0.000%
	Loma Linda	LL	\$0	\$0	\$0	0.000%	\$0	0.000%
OTHER SEWER	Roark Sewer	RWW	\$0	\$0	\$0	0.000%	\$0	0.000%
AQUA WATER	Maplewood - Lake Carmel	MWLC	\$55,936	\$4,161	\$51,775	0.226%	\$0	0.000%
	Rankin Acres	RA	\$0	\$0	\$0	0.000%	\$0	0.000%
	Riverside Estates	RE	\$41,723	\$3,104	\$38,619	0.169%	\$0	0.000%
	Spring Valley	SV	\$14,646	\$1,089	\$13,556	0.059%	\$0	0.000%
	Ozark Mountain	OMT	\$58,040	\$4,317	\$53,722	0.235%	\$0	0.000%
	Lakewood Manor	LWM	\$5,417	\$403	\$5,014	0.022%	\$0	0.000%
	Lake Taneycomo	LT	\$14,710	\$1,094	\$13,616	0.060%	\$0	0.000%
	White Branch	WB	\$21,806	\$1,622	\$20,184	0.088%	\$0	0.000%
AQUA SEWER	Jefferson City Sewer	JCWW	\$195,324	\$14,530	\$180,794	0.790%	\$0	0.000%
	Ozark Meadows	OMWW	\$3,570	\$266	\$3,305	0.014%	\$0	0.000%
	Maplewood Sewer	MPWW	\$5,798	\$431	\$5,367	0.023%	\$0	0.000%
Total			<u>\$24,720,825</u>	<u>\$1,838,940</u>	<u>\$22,881,886</u>	100.000%	<u>\$5,527,451</u>	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			A&G expenses (except for Call Center adjmt, Bellville Lab & OPEB amort) General Plant (All plant recorded in Corporate district) Accumulated Depreciation Reserve on General Plant Accumulated Amortization Reserve Miscellaneous Non-deductible Expenses Prepayments related to insurance and other				OPEB Asset and Amortization	

**Missouri American Water Company (MAWC)  
Staff's Corporate Allocation Factors**

MAWC District			Water Revenue		Sewer Revenue	
			<i>(Source: Staff's Annualized Revenues as of December 31, 2010)</i>		<i>(Source: Staff's Annualized Revenues as of December 31, 2010)</i>	
				Factor		Factor
MAWC WATER	Brunswick	BRU	\$384,280	0.163%	\$0	0.000%
	Jefferson City	JFC	\$5,850,705	2.483%	\$0	0.000%
	Joplin	JOP	\$18,224,033	7.733%	\$0	0.000%
	Mexico	MEX	\$3,559,325	1.510%	\$0	0.000%
	Parkville Water	PKW	\$5,307,847	2.252%	\$0	0.000%
	St. Joseph	SJO	\$20,928,031	8.881%	\$0	0.000%
	St. Louis Metro	SLM	\$176,149,467	74.750%	\$0	0.000%
	Warrensburg	WAR	\$3,781,621	1.605%	\$0	0.000%
	Warren County Water	WCW	\$339,483	0.144%	\$0	0.000%
MAWC SEWER	Cedar Hill	CDH	\$0	0.000%	\$479,979	20.879%
	Parkville Sewer	PKS	\$0	0.000%	\$82,177	3.575%
	Warren County Sewer	WCS	\$0	0.000%	\$270,205	11.754%
OTHER ACQUIRED WATER	Roark Water	RW	\$262,860	0.112%	\$0	0.000%
	Loma Linda	LL	\$111,385	0.047%	\$0	0.000%
OTHER SEWER	Roark Sewer	RWW	\$0	0.000%	\$294,926	12.830%
AQUA WATER	Maplewood - Lake Carmel	MWLC	\$153,203	0.065%	\$0	0.000%
	Rankin Acres	RA	\$52,703	0.022%	\$0	0.000%
	Riverside Estates	RE	\$116,199	0.049%	\$0	0.000%
	Spring Valley	SV	\$64,489	0.027%	\$0	0.000%
	Ozark Mountain	OMT	\$196,526	0.083%	\$0	0.000%
	Lakewood Manor	LWM	\$23,384	0.010%	\$0	0.000%
	Lake Taneycomo	LT	\$59,746	0.025%	\$0	0.000%
	White Branch	WB	\$85,456	0.036%	\$0	0.000%
AQUA SEWER	Jefferson City Sewer	JCWW	\$0	0.000%	\$1,022,979	44.500%
	Ozark Meadows	OMWW	\$0	0.000%	\$14,209	0.618%
	Maplewood Sewer	MPWW	\$0	0.000%	\$134,336	5.844%
Total			<u>\$235,650,743</u>	100.000%	<u>\$2,298,811</u>	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			PSC Assessment for Water Operations		PSC Assessment for Sewer Operations	

**Missouri American Water Company (MAWC)  
Staff's Corporate Allocation Factors**

MAWC District			Net Plant		Net Normalized Timing Difference		Net Book to Net Tax Basis Plant Difference	
			<i>(Source: Staff's December 31, 2010 Net Plant)</i>		<i>(Source: Staff's December 31, 2010 Net Normalized Timing Difference)</i>		<i>(Source: Staff's Net Book to Net Tax Basis as of December 31, 2010)</i>	
			Factor		Factor		Factor	
MAWC WATER	Brunswick	BRU	\$2,446,148	0.211%	\$18,588	0.056%	\$295,785	0.215%
	Jefferson City	JFC	\$22,066,871	1.903%	\$625,782	1.872%	\$2,570,840	1.865%
	Joplin	JOP	\$110,113,019	9.498%	\$1,204,828	3.604%	\$11,762,770	8.535%
	Mexico	MEX	\$19,466,644	1.679%	\$421,069	1.259%	\$2,087,377	1.515%
	Parkville Water	PKW	\$34,364,721	2.964%	\$713,807	2.135%	\$3,709,458	2.692%
	St. Joseph	SJO	\$99,652,121	8.596%	\$3,955,080	11.830%	\$11,548,355	8.379%
	St. Louis Metro	SLM	\$832,882,810	71.840%	\$24,791,440	74.152%	\$102,719,629	74.532%
	Warrensburg	WAR	\$19,982,589	1.724%	\$603,119	1.804%	\$2,274,255	1.650%
	Warren County Water	WCW	\$1,415,676	0.122%	\$37,594	0.112%	\$154,780	0.112%
MAWC SEWER	Cedar Hill	CDH	\$3,040,201	0.262%	\$173,265	0.518%	\$323,952	0.235%
	Parkville Sewer	PKS	\$45,402	0.004%	\$2,276	0.007%	\$7,267	0.005%
	Warren County Sewer	WCS	\$3,176,335	0.274%	\$33,400	0.100%	\$364,921	0.265%
OTHER ACQUIRED WATER	Roark Water	RW	\$1,507,610	0.130%	\$102,991	0.308%	\$0	0.000%
	Loma Linda	LL	\$441,383	0.038%	\$33,488	0.100%	\$0	0.000%
OTHER SEWER	Roark Sewer	RWW	\$3,409,252	0.294%	\$205,422	0.614%	\$0	0.000%
AQUA WATER	Maplewood - Lake Carmel	MWLC	\$441,349	0.038%	\$42,299	0.127%	\$0	0.000%
	Rankin Acres	RA	\$41,386	0.004%	\$10,922	0.033%	\$0	0.000%
	Riverside Estates	RE	\$336,711	0.029%	\$28,092	0.084%	\$0	0.000%
	Spring Valley	SV	\$51,386	0.004%	\$6,085	0.018%	\$0	0.000%
	Ozark Mountain	OMT	\$708,381	0.061%	\$70,602	0.211%	\$0	0.000%
	Lakewood Manor	LWM	\$107,907	0.009%	\$7,144	0.021%	\$0	0.000%
	Lake Taneycomo	LT	\$140,715	0.012%	\$11,739	0.035%	\$0	0.000%
	White Branch	WB	\$239,490	0.021%	\$15,195	0.045%	\$0	0.000%
AQUA SEWER	Jefferson City Sewer	JCWW	\$2,789,139	0.241%	\$261,713	0.783%	\$0	0.000%
	Ozark Meadows	OMWW	\$99,438	0.009%	\$4,113	0.012%	\$0	0.000%
	Maplewood Sewer	MPWW	\$384,196	0.033%	\$53,426	0.160%	\$0	0.000%
<b>Total</b>			<b>\$1,159,350,880</b>	<b>100.000%</b>	<b>\$33,433,479</b>	<b>100.000%</b>	<b>\$137,819,389</b>	<b>100.000%</b>
Staff applied the Allocation Factor to the following Corporate Accounts:			State Franchise Tax Prepaid Taxes (if any)	Annualized DIT based on each district's normalized timing differences	Deferred Income Tax Balances			

**Missouri American Water Company (MAWC)  
Staff's Corporate Allocation Factors**

MAWC District			ITC Amoritzation (Bases: Direct assigned ITC balances)		Water Test Analyses Performed	
			<i>(Source: Staff's ITC Amoritzation at December 31, 2010)</i>		<i>(Source: Test Year Number of Analyses performed by Belleville Lab by district)</i>	
				Factor		Factor
MAWC WATER	Brunswick	BRU	\$0	0.000%	219	6.600%
	Jefferson City	JFC	\$0	0.000%	337	10.157%
	Joplin	JOP	\$6,856	28.201%	337	10.157%
	Mexico	MEX	\$0	0.000%	241	7.263%
	Parkville Water	PKW	\$768	3.159%	341	10.277%
	St. Joseph	SJO	\$16,687	68.640%	310	9.343%
	St. Louis Metro	SLM	\$0	0.000%	1,160	34.961%
	Warrensburg	WAR	\$0	0.000%	307	9.253%
	Warren County Water	WCW	\$0	0.000%	66	1.989%
MAWC SEWER	Cedar Hill	CDH	\$0	0.000%	0	0.000%
	Parkville Sewer	PKS	\$0	0.000%	0	0.000%
	Warren County Sewer	WCS	\$0	0.000%	0	0.000%
OTHER ACQUIRED WATER	Roark Water	RW	\$0	0.000%	0	0.000%
	Loma Linda	LL	\$0	0.000%	0	0.000%
OTHER SEWER	Roark Sewer	RWW	\$0	0.000%	0	0.000%
AQUA WATER	Maplewood - Lake Carmel	MWLC	\$0	0.000%	0	0.000%
	Rankin Acres	RA	\$0	0.000%	0	0.000%
	Riverside Estates	RE	\$0	0.000%	0	0.000%
	Spring Valley	SV	\$0	0.000%	0	0.000%
	Ozark Mountain	OMT	\$0	0.000%	0	0.000%
	Lakewood Manor	LWM	\$0	0.000%	0	0.000%
	Lake Taneycomo	LT	\$0	0.000%	0	0.000%
	White Branch	WB	\$0	0.000%	0	0.000%
AQUA SEWER	Jefferson City Sewer	JCWW	\$0	0.000%	0	0.000%
	Ozark Meadows	OMWW	\$0	0.000%	0	0.000%
	Maplewood Sewer	MPWW	\$0	0.000%	0	0.000%
Total			<u>\$24,311</u>	100.000%	<u>3,318</u>	100.000%
Staff applied the Allocation Factor to the following Corporate Accounts:			Corporate recorded ITC amortization		Belleville Lab costs/expense	