

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
PSC STAFF STUDY
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TEST YEAR ENDED DECEMBER 31, 2002

Customer Classification (1)	Cost of Service		Revenues, Present Rates		Revenues, Proposed Rates		Proposed Increase	
	Amount (Schedule B) (2)	Percent (3)	Amount (4)	Percent (5)	Amount (6)	Percent (7)	Amount (8)	Percent Increase (9)
Residential	\$ 5,972,651	87.2%	\$ 7,312,573	85.5%	\$ 5,972,651	87.2%	\$ (1,339,922)	-18.3%
Commercial	663,045	9.7%	959,209	11.2%	663,045	9.6%	(296,164)	-30.9%
Industrial	2,933	0.0%	4,132	0.0%	2,933	0.0%	(1,199)	-29.0%
Public Authority	97,479	1.4%	159,641	1.9%	97,479	1.4%	(62,162)	-38.9%
Sales for Resale	-	0.0%	-	0.0%	-	0.0%	-	
Private Fire Service	114,876	1.7%	117,006	1.4%	114,875	1.7%	(2,131)	-1.8%
Public Fire Service	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Total Sales	6,850,984	<u>100.0%</u>	8,552,561	<u>100.0%</u>	6,850,983	<u>99.9%</u>	(1,701,578)	-19.9%
Other Revenues	149,175		149,175		149,175		-	0.0%
Total	<u>\$ 7,000,159</u>		<u>\$ 8,701,736</u>		<u>\$ 7,000,158</u>		<u>\$ (1,701,578)</u>	-19.6%
True-Up Estimate	\$397,866				\$397,866		\$397,866	
Total w/ True-up	<u>7,398,025</u>				<u>\$ 7,398,024</u>		<u>\$ (1,303,712)</u>	-15.0%

Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

Missouri Public Service Commission
 Company: Missouri-American Water Company
 District: St. Charles

Case No. WR-2003-0500
 STAFF - ST CHARLES
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Line #	Class/ Description	Present Pro Forma Rates		Proposed Pro Forma Rates		Dollar Change	Percentage Change
		Sales ('000 Gal)	Total Revenue	Sales ('000 Gal)	Total Revenue		
1							
2	Monthly Billing:						
3							
4	Residential	2,645,435	\$7,312,573	2,645,435	\$5,972,651	(\$1,339,922)	-18.32%
5	Commercial	438,108	959,209	438,108	663,045	(296,164)	-30.88%
6	Industrial	2,429	4,132	2,429	2,933	(1,199)	-29.02%
7	Other Public Authority	62,684	159,641	62,684	97,479	(62,162)	-38.94%
8	Other Water Utilities	0	0	0	0	0	0.00%
9	Miscellaneous	0	0	0	0	0	0.00%
10	Private Fire	0	117,006	0	114,875	(2,131)	-1.82%
11	Public Fire	0	0	0	0	0	0.00%
12	Total	<u>3,148,656</u>	<u>8,552,561</u>	<u>3,148,656</u>	<u>6,850,983</u>	<u>(\$1,701,578)</u>	<u>-19.90%</u>
13							
14							
15	Miscellaneous Revenues:						
16							
17	Reconnect Charges		8,935		8,935	0	0.00%
18	Returned Check Charge		2,086		2,086	0	0.00%
19	Application Fee		64,720		64,720	0	0.00%
20	Miscellaneous Other Revenue		28,105		5,786	(22,319)	-79.41%
21	Rents from Water Property		16,300		16,300	0	0.00%
22	Miscellaneous Unmetered Sales		29,029		29,029		
23							
24			<u>\$8,701,736</u>		<u>\$6,977,839</u>	<u>(1,723,897)</u>	<u>-19.81%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

Missouri Public Service Commission
 Company: Missouri-American Water Company
 District: St. Charles

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Line #	Class/ Description	Present Pro Forma Rates				Proposed Pro Forma Rates				Dollar Change	Percentage Change
		Customer Meter Billings	Sales (^{'000} Gal)	Current Rate	Total Revenue	Customer Meter Billings	Sales (^{'000} Gal)	Proposed Rate	Total Revenue		
1											
2	Residential:										
3	<u>Minimum Charge:</u>										
4	5/8" Monthly	313,829		\$7.08	\$2,221,909	313,829		\$ 5.83	\$1,828,800	(\$393,109)	-17.69%
5	3/4" Monthly	12		9.06	109	12		\$ 6.09	73	(36)	-33.03%
6	1" Monthly	8,478		12.84	108,858	8,478		\$ 6.71	56,848	(52,010)	-47.78%
7	1-1/2" Monthly	188		22.33	4,198	188		\$ 8.92	1,677	(2,521)	-60.05%
8	2" Monthly	53		33.71	1,787	53		\$ 10.34	548	(1,239)	-69.33%
9	3" Monthly	0		60.24	0	0		\$ 24.23	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 33.43	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 52.21	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 112.69	0	0	0.00%
13	10" Monthly	0		520.92	0	0		0.00	0	0	0.00%
14	12" Monthly	0		859.27	0	0		0.00	0	0	0.00%
15											
16											
17	<u>Volumetric Charges:</u>										
18	First Block		2,620,877	\$1.8898	4,952,933		2,620,877	\$1.5441	4,046,786	(906,147)	-18.30%
19	Second Block		16,670	1.0587	17,649		16,670	1.5441	25,739	8,090	45.84%
20	Third Block		2,959	0.8170	2,418		2,959	1.5441	4,569	2,151	88.96%
21	Fourth Block		4,929	0.5502	2,712		4,929	1.5441	7,611	4,899	180.64%
22											
23											
24	Total		<u>2,645,435</u>		<u>\$7,312,573</u>		<u>2,645,435</u>		<u>\$5,972,651</u>	<u>(\$1,339,922)</u>	<u>-18.32%</u>

Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

Missouri Public Service Commission
 Company: Missouri-American Water Company
 District: St. Charles

Case No. WR-2003-0500

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Line #	Class/ Description	Present Pro Forma Rates				Proposed Pro Forma Rates				Dollar Change	Percentage Change
		Customer Meter Billings	Sales (^{'000} Gal)	Current Rate	Total Revenue	Customer Meter Billings	Sales (^{'000} Gal)	Proposed Rate	Total Revenue		
1											
2	Commercial:										
3	<u>Minimum Charge:</u>										
4	5/8" Monthly	4,626		\$7.08	\$32,752	4,626		\$ 5.83	\$26,957	(\$5,795)	-17.69%
5	3/4" Monthly	4		9.06	36	4		\$ 6.09	24	(12)	-33.33%
6	1" Monthly	2,452		12.84	31,484	2,452		\$ 6.71	16,442	(15,042)	-47.78%
7	1-1/2" Monthly	2,156		22.33	48,143	2,156		\$ 8.92	19,232	(28,911)	-60.05%
8	2" Monthly	1,915		33.71	64,555	1,915		\$ 10.34	19,808	(44,747)	-69.32%
9	3" Monthly	89		60.24	5,361	89		\$ 24.23	2,157	(3,204)	-59.76%
10	4" Monthly	101		98.15	9,913	101		\$ 33.43	3,377	(6,536)	-65.93%
11	6" Monthly	32		192.93	6,174	32		\$ 52.21	1,671	(4,503)	-72.93%
12	8" Monthly	13		306.65	3,986	13		\$ 112.69	1,465	(2,521)	-63.25%
13	10" Monthly	0		520.92	0	0		0.00	0	0	0.00%
14	12" Monthly	0		859.27	0	0		0.00	0	0	0.00%
15											
16											
17	<u>Volumetric Charges:</u>										
18	First Block		304,927	\$1.9952	608,390		304,927	\$1.3054	398,056	(210,334)	-34.57%
19	Second Block		131,452	1.1177	146,924		131,452	1.3054	171,599	24,675	16.79%
20	Third Block		1,729	0.8625	1,491		1,729	1.3054	2,257	766	51.37%
21	Fourth Block		0	0.5809	0		0	1.3054	0	0	0.00%
22											
23											
24	Total		<u>438,108</u>		<u>\$959,209</u>		<u>438,108</u>		<u>\$663,045</u>	<u>(\$296,164)</u>	<u>-30.88%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

Missouri Public Service Commission
 Company: Missouri-American Water Company
 District: St. Charles

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Line #	Class/ Description	Present Pro Forma Rates				Proposed Pro Forma Rates				Dollar Change	Percentage Change
		Customer Meter Billings	Sales (^{'000} Gal)	Current Rate	Total Revenue	Customer Meter Billings	Sales (^{'000} Gal)	Proposed Rate	Total Revenue		
1											
2	Industrial:										
3	<u>Minimum Charge:</u>										
4	5/8" Monthly	0		\$7.08	\$0	0		\$ 5.83	\$0	\$0	0.00%
5	3/4" Monthly	0		9.06	0	0		\$ 6.09	0	0	0.00%
6	1" Monthly	0		12.84	0	0		\$ 6.71	0	0	0.00%
7	1-1/2" Monthly	0		22.33	0	0		\$ 8.92	0	0	0.00%
8	2" Monthly	19		33.71	640	19		\$ 10.34	197	(443)	-69.22%
9	3" Monthly	0		60.24	0	0		\$ 24.23	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 33.43	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 52.21	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 112.69	0	0	0.00%
13	10" Monthly	0		520.92	0	0		0.00	0	0	0.00%
14	12" Monthly	0		859.27	0	0		0.00	0	0	0.00%
15											
16											
17	<u>Volumetric Charges:</u>										
18	First Block		1,171	\$1.8612	2,180		1,171	\$1.1262	1,319	(861)	-39.50%
19	Second Block		1,258	1.0427	1,312		1,258	1.1262	1,417	105	8.00%
20	Third Block		0	0.8044	0		0	1.1262	0	0	0.00%
21	Fourth Block		0	0.5419	0		0	1.1262	0	0	0.00%
22											
23											
24	Total		<u>2,429</u>		<u>\$4,132</u>		<u>2,429</u>		<u>\$2,933</u>	<u>(\$1,199)</u>	<u>-29.02%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

Missouri Public Service Commission
 Company: Missouri-American Water Company
 District: St. Charles

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Line #	Class/ Description	Present Pro Forma Rates				Proposed Pro Forma Rates				Dollar Change	Percentage Change
		Customer Meter Billings	Sales (⁰⁰⁰ Gal)	Current Rate	Total Revenue	Customer Meter Billings	Sales (⁰⁰⁰ Gal)	Proposed Rate	Total Revenue		
1											
2	Other Public Authority:										
3	<u>Minimum Charge:</u>										
4	5/8" Monthly	57		\$7.08	\$404	57		\$ 5.83	\$332	(\$72)	-17.82%
5	3/4" Monthly	0		9.06	0	0		\$ 6.09	0	0	0.00%
6	1" Monthly	39		12.84	501	39		\$ 6.71	262	(239)	-47.70%
7	1-1/2" Monthly	60		22.33	1,340	60		\$ 8.92	535	(805)	-60.07%
8	2" Monthly	247		33.71	8,326	247		\$ 10.34	2,555	(5,771)	-69.31%
9	3" Monthly	168		60.24	10,120	168		\$ 24.23	4,071	(6,049)	-59.77%
10	4" Monthly	121		98.15	11,876	121		\$ 33.43	4,045	(7,831)	-65.94%
11	6" Monthly	63		192.93	12,155	63		\$ 52.21	3,289	(8,866)	-72.94%
12	8" Monthly	0		306.65	0	0		\$ 112.69	0	0	0.00%
13	10" Monthly	0		520.92	0	0		0.00	0	0	0.00%
14	12" Monthly	0		859.27	0	0		0.00	0	0	0.00%
15											
16											
17	<u>Volumetric Charges:</u>										
18	First Block		30,031	\$2.3919	71,831		30,031	\$1.3144	39,472	(32,359)	-45.05%
19	Second Block		30,483	1.3399	40,844		30,483	1.3144	40,066	(778)	-1.90%
20	Third Block		2,170	1.0341	2,244		2,170	1.3144	2,852	608	27.09%
21	Fourth Block		0	0.6963	0		0	1.3144	0	0	0.00%
22											
23											
24	Total		<u>62,684</u>		<u>\$159,641</u>		<u>62,684</u>		<u>\$97,479</u>	<u>(\$62,162)</u>	<u>-38.94%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

Missouri Public Service Commission
 Company: Missouri-American Water Company
 District: St. Charles

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Line #	Class/ Description	Present Pro Forma Rates				Proposed Pro Forma Rates				Dollar Change	Percentage Change
		Customer Meter Billings	Sales (^{'000} Gal)	Current Rate	Total Revenue	Customer Meter Billings	Sales (^{'000} Gal)	Proposed Rate	Total Revenue		
1											
2	Other Water Utilities:										
3	<u>Minimum Charge:</u>										
4	5/8" Monthly	0		\$7.08	\$0	0		\$ 5.83	\$0	\$0	0.00%
5	3/4" Monthly	0		9.06	0	0		\$ 6.09	0	0	0.00%
6	1" Monthly	0		12.84	0	0		\$ 6.71	0	0	0.00%
7	1-1/2" Monthly	0		22.33	0	0		\$ 8.92	0	0	0.00%
8	2" Monthly	0		33.71	0	0		\$ 10.34	0	0	0.00%
9	3" Monthly	0		60.24	0	0		\$ 24.23	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 33.43	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 52.21	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 112.69	0	0	0.00%
13	10" Monthly	0		520.92	0	0		0.00	0	0	0.00%
14	12" Monthly	0		859.27	0	0		0.00	0	0	0.00%
15											
16											
17	<u>Volumetric Charges:</u>										
18	First Block		0	\$1.9548	0		0	\$0.0000	0	0	0.00%
19	Second Block		0	1.0951	0		0	0.0000	0	0	0.00%
20	Third Block		0	0.8451	0		0	0.0000	0	0	0.00%
21	Fourth Block		0	0.5691	0		0	0.0000	0	0	0.00%
22											
23											
24	Total		<u>0</u>		<u>\$0</u>		<u>0</u>		<u>\$0</u>	<u>\$0</u>	<u>0.00%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

Missouri Public Service Commission
Company: Missouri-American Water Company
District: St. Charles

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Line #	Class/ Description	Present Pro Forma Rates				Proposed Pro Forma Rates				Dollar Change	Percentage Change
		Customer Meter Billings	Sales (^{'000} Gal)	Current Rate	Total Revenue	Customer Meter Billings	Sales (^{'000} Gal)	Proposed Rate	Total Revenue		
1											
2	Miscellaneous:										
3	<u>Minimum Charge:</u>										
4	5/8" Monthly	0		\$7.08	\$0	0		\$ 5.83	\$0	\$0	0.00%
5	3/4" Monthly	0		9.06	0	0		\$ 6.09	0	0	0.00%
6	1" Monthly	0		12.84	0	0		\$ 6.71	0	0	0.00%
7	1-1/2" Monthly	0		22.33	0	0		\$ 8.92	0	0	0.00%
8	2" Monthly	0		33.71	0	0		\$ 10.34	0	0	0.00%
9	3" Monthly	0		60.24	0	0		\$ 24.23	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 33.43	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 52.21	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 112.69	0	0	0.00%
13	10" Monthly	0		520.92	0	0		0.00	0	0	0.00%
14	12" Monthly	0		859.27	0	0		0.00	0	0	0.00%
15											
16											
17	<u>Volumetric Charges:</u>										
18	First Block		0	\$0.0000	0		0	\$0.0000	0	0	0.00%
19	Second Block		0	0.0000	0		0	0.0000	0	0	0.00%
20	Third Block		0	0.0000	0		0	0.0000	0	0	0.00%
21	Fourth Block		0	0.0000	0		0	0.0000	0	0	0.00%
22											
23											
24	Total		<u>0</u>		<u>\$0</u>		<u>0</u>		<u>\$0</u>	<u>\$0</u>	<u>0.00%</u>

Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

Missouri Public Service Commission
 Company: Missouri-American Water Company
 District: St. Charles

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Line #	Connection Size	Number of Connections	Present Rates		Proposed Rates		Dollar Change	Percentage Change
			Annual Rate	Total Revenue	Annual Rate	Total Revenue		
1								
2	Private Fire Service:							
3								
4	Private Fire Hydrant	18	\$822.12	\$14,798	807.16	\$14,529	(\$269)	-1.82%
5								
6	2"	13	117.84	1,532	115.70	1,504	(28)	-1.83%
7								
8	3"	0	202.44	0	198.76	0	0	0.00%
9								
10	4"	16	321.24	5,140	315.39	5,046	(94)	-1.83%
11								
12	6"	57	658.80	37,552	646.81	36,868	(684)	-1.82%
13								
14	8"	45	1,133.64	51,014	1,113.01	50,085	(929)	-1.82%
15								
16	10"	4	1,742.40	6,970	1,710.69	6,843	(127)	-1.82%
17								
18	12"	0	2,484.36	0	2,439.14	0	0	0.00%
19								
20								
21								
22	Total	<u>153</u>		<u>\$117,006</u>		<u>\$114,875</u>	<u>(\$2,131)</u>	<u>-1.82%</u>
23								
24								
25								
26	Public Fire Protection:							
27								
28	Public Fire Hydrants	<u>2,762</u>	0.00	<u>0</u>	0.00	<u>0</u>	<u>0</u>	<u>0.00%</u>
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MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY										
Account (1)	Factor Ref. (2)	Cost of Service (3)	Residential (4)	Commercial (5)	Industrial (6)	Public Authorities (7)	Sales for Resale (8)	Fire Protection		
								Private (9)	Public (10)	
OPERATION AND MAINTENANCE EXPENSES										
SOURCE OF SUPPLY EXPENSES										
Super & Eng Oper SS	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0.0
Labor & Exp Oper SS	2	0	0	0	0	0	0	0	0	0.0
Labor & Exp Oper SS	2	(134)	(115)	(16)	(0)	(2)	0	(0)	(0)	0.0
Purchased Water	1	526,058	439,679	72,806	421	10,416	0	421	2,315	0.0
TOTAL SS EXPENSE - OPERATION		525,924	439,564	72,790	421	10,414	0	421	2,314	0.0
Misc Exp Oper SS	2	(18)	(15)	(2)	(0)	(0)	0	(0)	(0)	0.0
Misc Exp Oper SS	2	6	5	1	0	0	0	0	0	0.0
Rents Oper SS	2	0	0	0	0	0	0	0	0	0.0
Super & Eng Maint SS	2	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint SS	2	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint SS	2	157	135	19	0	3	0	0	0	0.0
Collect & Impound Maint SS	2	0	0	0	0	0	0	0	0	0.0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0	0	0.0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0	0	0.0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0	0	0.0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0	0	0.0
Infit Gall & Tunnels Maint SS	2	0	0	0	0	0	0	0	0	0.0
Supply Mains Maint SS	2	0	0	0	0	0	0	0	0	0.0
Misc Plant Maint SS	2	0	0	0	0	0	0	0	0	0.0
Misc Plant Maint SS	2	18,097	15,520	2,206	11	317	0	7	36	0.0
TOTAL SS EXPENSE - MAINTENANCE		18,242	15,644	2,224	11	319	0	7	36	0.0
TOTAL SS EXPENSE		544,166	455,208	75,014	432	10,733	0	428	2,351	0.0
POWER AND PUMPING EXPENSES										
Super & Eng Oper P	6	0	0	0	0	0	0	0	0	0.0
Fuel for Power Prod	1	0	0	0	0	0	0	0	0	0.0
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0	0	0.0
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0	0	0.0
Purch Fuel/Power for Pump	1	62,383	52,140	8,634	50	1,235	0	50	274	0.0
Labor & Exp Oper Pump	6	23,459	19,194	2,698	14	389	0	178	985	0.0
Labor & Exp Oper Pump	6	3	2	0	0	0	0	0	0	0.0
Expenses Transferred	6	0	0	0	0	0	0	0	0	0.0
Misc Exp Oper P	6	2	2	0	0	0	0	0	0	0.0
Rents Oper P	6	226	185	26	0	4	0	2	9	0.0
TOTAL PUMPING EXPENSE - OPERATION		86,073	71,523	11,358	64	1,628	0	230	1,269	0.0

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY										
Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Protection		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Private (9)	Public (10)	
Super & Eng Maint P	6	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint P	6	2,083	1,704	240	1	35	0	16	87	0.0
Power Prod Equip Maint P	6	6,344	5,191	730	4	105	0	48	266	0.0
Pump Equip Maint P	6	6,006	4,914	891	4	100	0	46	252	0.0
Pump Equip Maint P	6	0	0	0	0	0	0	0	0	0.0
TOTAL PUMPING EXPENSES - MAINTENANCE		14,433	11,809	1,660	9	240	0	110	606	0.0
TOTAL PUMPING EXPENSES		100,506	83,332	13,018	73	1,868	0	340	1,876	0.0
WATER TREATMENT										0.0
Super & Eng Oper WT	2	0	0	0	0	0	0	0	0	0.0
Chemicals	1	(4,642)	(3,880)	(642)	(4)	(92)	0	(4)	(20)	0.0
Labor & Exp Oper WT	2	0	0	0	0	0	0	0	0	0.0
Labor & Exp Oper WT	2	(1)	(1)	(0)	(0)	(0)	0	(0)	(0)	0.0
Misc Exp Oper WT	2	0	0	0	0	0	0	0	0	0.0
Misc Exp Oper WT	1	(5)	(4)	(1)	(0)	(0)	0	(0)	(0)	0.0
Misc Exp Oper WT	2	(1)	(1)	(0)	(0)	(0)	0	(0)	(0)	0.0
Rents Oper WT	2	0	0	0	0	0	0	0	0	0.0
TOTAL WT EXPENSE - OPERATION		(4,649)	(3,886)	(643)	(4)	(92)	0	(4)	(20)	0.0
Super & Eng Maint WT	2	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint WT	2	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint WT	2	0	0	0	0	0	0	0	0	0.0
WT Equip Maint WT	2	0	0	0	0	0	0	0	0	0.0
WT Equip Maint WT	2	1	1	0	0	0	0	0	0	0.0
TOTAL WT EXPENSE - MAINTENANCE		1	1	0	0	0	0	0	0	0.0
TOTAL WT EXPENSE		(4,648)	(3,885)	(643)	(4)	(92)	0	(4)	(20)	0.0
TRANSMISSION AND DISTRIBUTION EXPENSES										0.0
Super & Eng Oper TD	11	163	118	14	0	2	0	5	25	0.0
Storage Facility Exp	5	121	78	10	0	1	0	5	26	0.0
Storage Facility Exp	5	5,220	3,367	444	2	64	0	205	1,137	0.0
TD Lines Exp	7	33,850	23,235	3,067	14	440	0	1,087	6,008	0.0
TD Lines Exp	7	208,358	143,017	18,877	83	2,709	0	6,688	36,984	0.0
Meter Expense	9	69	61	6	0	2	0	0	0	0.0
Meter Expense	9	0	0	0	0	0	0	0	0	0.0
Customer Install Exp	10	43,850	40,662	1,951	4	224	0	1,009	0	0.0
Customer Install Exp	10	0	0	0	0	0	0	0	0	0.0
Misc Exp Oper TD	11	25,424	18,351	2,125	10	300	0	788	3,852	0.0

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY									
Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Protection	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Private	Public
Misc Exp Oper TD	11	0	0	0	0	0	0	0	0
Misc Exp Oper TD	11	2,294	1,656	192	1	27	0	71	348
Rents Oper TD	11	1	1	0	0	0	0	0	0
TOTAL T & D EXPENSE OPERATION		319,350	230,545	26,687	115	3,769	0	9,855	48,380
Super & Eng Maint TD	12	4	3	0	0	0	0	0	1
Struct & Improve Maint TD	12	0	0	0	0	0	0	0	0
Struct & Improve Maint TD	12	0	0	0	0	0	0	0	0
Dist Res Stand Maint TD	5	0	0	0	0	0	0	0	0
TD Main Maint TD	7	36,851	25,295	3,339	15	479	0	1,183	6,541
TD Main Maint TD	7	0	0	0	0	0	0	0	0
Fire Main Maint TD	8	0	0	0	0	0	0	0	0
Services Maint TD	10	22,522	20,885	1,002	2	115	0	518	0
Services Maint TD	10	0	0	0	0	0	0	0	0
Meters Maint TD	9	5,827	5,147	504	1	175	0	0	0
Meters Maint TD	9	0	0	0	0	0	0	0	0
Hydrants Maint TD	8	8,722	0	0	0	0	0	0	8,722
Hydrants Maint TD	8	0	0	0	0	0	0	0	0
Misc Plant Maint TD	12	12,861	8,931	842	3	134	0	296	2,658
Mat and Sup Maint TD	12	88,626	61,542	5,805	18	922	0	2,038	18,301
Misc Maint TD	12	0	0	0	0	0	0	0	0
Amort Def Maint TD	5	0	0	0	0	0	0	0	0
TOTAL T & D EXPENSE - MAINTENANCE		175,413	121,802	11,493	38	1,824	0	4,035	36,221
TOTAL T & D EXPENSE		494,763	352,347	38,179	153	5,593	0	13,890	84,601
CUSTOMER ACCOUNTS									
Supervision CA	13	21,943	21,030	742	2	48	0	121	0
Meter Reading Exp CA	14	92,934	89,551	3,160	9	214	0	0	0
Meter Reading Exp CA	14	36	35	1	0	0	0	0	0
Meter Reading Exp CA	14	0	0	0	0	0	0	0	0
Cust Rec & Collection CA	13	83,054	79,599	2,807	8	183	0	457	0
Cust Rec & Collection CA	13	100,213	96,044	3,387	10	220	0	551	0
Uncollectible Accts	13	28,420	27,238	961	3	63	0	156	0
Misc Cust Accts Exp CA	13	9,064	8,687	306	1	20	0	50	0
Misc Cust Accts Exp CA	13	378	362	13	0	1	0	2	0
Misc Cust Accts Exp CA	13	9,253	8,868	313	1	20	0	51	0
Cust Serv & Info Exp CA	13	206,497	197,907	6,980	21	454	0	1,136	0
TOTAL CUSTOMER ACCOUNTING EXPENSE		551,792	529,321	18,669	55	1,223	0	2,524	0
ADMINISTRATIVE AND GENERAL EXPENSES									
Salaries AG	15	173,696	146,235	9,988	35	1,216	0	2,640	13,583
Other Supplies & Exp AG	15	7	6	0	0	0	0	0	1
Other Supplies & Exp AG	15	48,003	40,414	2,760	10	336	0	730	3,754
Other Supplies & Exp AG	15	2,762	2,325	159	1	19	0	42	216
Mgmt Fees-Corporate/Shared Service Center	15	157,143	132,299	9,036	31	1,100	0	2,389	12,289
Mgmt Fees-Call Center	13	84,711	81,187	2,863	8	186	0	466	0
Mgmt Fees-Belleville Lab	2	23,763	20,379	2,897	14	416	0	10	48
Mgmt Fees- Financial ITS	15	8,245	6,941	474	2	58	0	125	645
Mgmt Fees- Customer Billings ITS	13	46,547	44,611	1,573	5	102	0	256	0
Mgmt Fees-Other ITS	15	524	441	30	0	4	0	8	41
Outside Services AG	15	32,581	27,430	1,873	7	228	0	495	2,548

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY										
Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Protection		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Private (9)	Public (10)	
Outside Services AG	15	0	0	0	0	0	0	0	0	0.0
Property Insurance	15	0	0	0	0	0	0	0	0	0.0
Ins Gen Liab Oper AG	15	0	0	0	0	0	0	0	0	0.0
Ins Work Comp AG	16	16,032	13,662	901	3	111	0	223	1,132	0.0
Ins Other Oper AG	15	30,113	25,352	1,731	6	211	0	458	2,355	0.0
Property Insurance	15	23,024	19,384	1,324	5	161	0	350	1,800	0.0
Injuries & Damages	16	1,498	1,277	84	0	10	0	21	106	0.0
Employee Pension & Benefits	16	218,279	186,017	12,267	44	1,506	0	3,034	15,410	0.0
Employee Pension & Benefits	16	0	0	0	0	0	0	0	0	0.0
Employee Pension & Benefits	16	0	0	0	0	0	0	0	0	0.0
Reg Commision Exp	15	5,562	4,683	320	1	39	0	85	435	0.0
Rents AG	15	26,963	22,700	1,550	5	189	0	410	2,109	0.0
	15	0	0	0	0	0	0	0	0	0.0
Misc Exp AG	15	(18,956)	(15,959)	(1,090)	(4)	(133)	0	(288)	(1,482)	0.0
Research & Development	15	0	0	0	0	0	0	0	0	0.0
TOTAL A & G OPERATIONS		880,497	759,384	48,742	172	5,759	0	11,452	54,988	0.0
General Plant Maint AG	15	0	0	0	0	0	0	0	0	0.0
General Plant Maint AG	15	8,148	6,860	469	2	57	0	124	637	0.0
TOTAL A & G EXPENSE - MAINTENANCE		8,148	6,860	469	2	57	0	124	637	0.0
TOTAL A & G EXPENSE		888,645	766,244	49,210	174	5,816	0	11,576	55,625	0.0
										0.0
Total Operation & Maintenance Expenses		2,575,224	2,182,567	193,447	883	25,141	0	28,754	144,432	0.0
										0.0

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY										
Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Protection		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Private	Public	(10)
DEPRECIATION EXPENSE										
Struct & Imp P	6	11,166	9,136	1,284	7	185	0	85	469	0.0
Struct & Imp WT	2	0	0	0	0	0	0	0	0	0.0
Struct & Imp TD	7	9,652	6,625	874	4	125	0	310	1,713	0.0
Struct & Imp Offices	15	7,898	6,649	454	2	55	0	120	618	0.0
Struct & Imp Store,Shop,Gar	15	0	0	0	0	0	0	0	0	0.0
Struct & Imp Misc	15	18	15	1	0	0	0	0	1	0.0
Collect & Impounding	1	0	0	0	0	0	0	0	0	0.0
Lake, River & Other intakes	2	0	0	0	0	0	0	0	0	0.0
Wells & Springs	2	0	0	0	0	0	0	0	0	0.0
Supply Mains	2	0	0	0	0	0	0	0	0	0.0
Power Generation Equip Othe	6	6,765	5,535	778	4	112	0	51	284	0.0
Pump Equip Electric	6	35,778	29,274	4,114	21	594	0	272	1,503	0.0
Pump Equip Other	7	152	104	14	0	2	0	5	27	0.0
WT Equip Non-Media	2	301	258	37	0	5	0	0	1	0.0
Dist Reservoirs & Standpipe	5	29,269	18,881	2,491	12	357	0	1,150	6,378	0.0
Elevated Tanks & Standpipes	5	2,648	1,708	225	1	32	0	104	577	0.0
Ground Level Facilities	5	0	0	0	0	0	0	0	0	0.0
TD Mains Not Classified by	7	219,599	150,733	19,896	88	2,855	0	7,049	38,979	0.0
TD Mains 4 & Less "	4	6,191	4,250	561	2	80	0	199	1,099	0.0
TD Mains 6 to 8" "	4	70,071	48,097	6,348	28	911	0	2,249	12,438	0.0
TD Mains 10 to 16" "	3	158,986	124,581	17,727	79	2,544	0	2,146	11,908	0.0
TD Mains 18 & Grtr "	3	65,614	51,415	7,316	33	1,050	0	886	4,914	0.0
Fire Mains	8	2,963	0	0	0	0	0	0	2,963	0.0
Services	10	104,931	97,303	4,669	10	535	0	2,413	0	0.0
Meters Bronze Case	9	18,408	16,260	1,592	4	552	0	0	0	0.0
Meters Plastic Case	9	0	0	0	0	0	0	0	0	0.0
Meters Other	9	7,885	6,965	682	2	237	0	0	0	0.0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0	0	0.0
Meter Installations	9	64,261	56,762	5,559	13	1,928	0	0	0	0.0
Meter Installation Other	9	0	0	0	0	0	0	0	0	0.0
Hydrants	8	48,406	0	0	0	0	0	0	48,406	0.0
Utility Plant Acquisition Adjustment	17	0	0	0	0	0	0	0	0	0.0
Other P/E WT Res Hand Equip	2	0	0	0	0	0	0	0	0	0.0
Other P/E TD	7	52	36	5	0	1	0	2	9	0.0
Other P/E CPS	15	0	0	0	0	0	0	0	0	0.0
Office Furniture & Equip	15	262	221	15	0	2	0	4	20	0.0
Comp & Periph Equip	15	4,824	4,061	277	1	34	0	73	377	0.0
Computer Software	15	1,640	1,381	94	0	11	0	25	128	0.0
Comp Software Personal	15	0	0	0	0	0	0	0	0	0.0
Data Handling Equipment	15	0	0	0	0	0	0	0	0	0.0
Other Office Equipment	15	0	0	0	0	0	0	0	0	0.0
Trans Equip Lt Duty Trks	15	22,207	18,696	1,277	4	155	0	338	1,737	0.0
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0	0.0
Trans Equip Autos	15	1,140	960	66	0	8	0	17	89	0.0
Trans Equip Other	15	0	0	0	0	0	0	0	0	0.0
Stores Equipment	15	21	18	1	0	0	0	0	2	0.0
Tools,Shop,Garage Equip	15	4,172	3,512	240	1	29	0	63	326	0.0
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0	0.0
Laboratory Equipment	2	175	150	21	0	3	0	0	0	0.0
Laboratory Equip Other	2	0	0	0	0	0	0	0	0	0.0
Power Operated Equipment	15	9,244	7,783	532	2	65	0	141	723	0.0
Comm Equip Non-Telephone	15	993	836	57	0	7	0	15	78	0.0

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY									
Account	Factor	Cost of	Residential	Commercial	Industrial	Public	Sales for	Fire Protection	
(1)	Ref.	Service	(4)	(5)	(6)	Authorities	Resale	Private	Public
	(2)	(3)				(7)	(8)	(9)	(10)
Comm Equip Telephone	15	333	280	19	0	2	0	5	26
Misc Equipment	16	2,971	2,532	167	1	20	0	41	210
Other Tangible Property	15	40,707	34,271	2,341	8	285	0	619	3,183
Total Depreciation Expense		959,703	709,287	79,735	328	12,784	0	10,384	139,186
Amort-Other UP,Dep CIAC, CORemoval	18	(76,372)	(54,896)	(6,912)	(31)	(1,069)	0	(1,505)	(11,960)
Taxes Other Than Income									
Utility Reg Assessment Fee	19	51,693	39,824	4,316	21	636	0	848	6,048
Property Taxes	18	681,188	489,638	61,648	272	9,537	0	13,419	106,674
FUTA	16	819	698	46	0	6	0	11	58
FICA	16	45,765	39,001	2,572	9	316	0	636	3,231
SUTA	16	(7)	(6)	(0)	(0)	(0)	0	(0)	(0)
Other Taxes & Licenses	15	18,919	15,928	1,088	4	132	0	288	1,479
Gross Receipts Tax	19	0	0	0	0	0	0	0	0
Total Taxes, Other Than Income		798,377	585,083	69,669	306	10,626	0	15,202	117,490
Income Taxes	18	590,935	424,764	53,480	236	8,273	0	11,641	92,540
Utility Income Available for Return	18	2,152,292	1,547,067	194,782	861	30,132	0	42,400	337,049
Total Cost of Service		7,000,159	5,393,873	584,202	2,584	85,887	0	114,876	818,737
Less: Other Water Revenues	19	149,175	149,175						
Revenue Contribution	19	0	0	0	0	0	0	0	0
Total Other Water Revenues		149,175	149,175	0	0	0	0	0	0
Total Cost of Service Related to Sales of Water		\$ 6,850,984	\$ 5,244,698	\$ 584,202	\$ 2,584	\$ 85,887	\$ -	\$ 114,876	\$ 818,737
Reallocation of Public Fire	20		727,954	78,843	349	11,591	0	0	(818,737)
Total		\$ 6,850,984	\$ 5,972,651	\$ 663,045	\$ 2,933	\$ 97,479	\$ -	\$ 114,876	\$ -
		\$ 149,175	\$ 149,175						
		\$ 7,000,159	\$ 6,121,826						
		\$ (727)							
		\$ 6,999,433							

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY										
Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Protection		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Private	Public	(10)
RATE BASE										0.0
Organization	17	\$ 4,234	\$ 3,047	\$ 382	\$ 2	\$ 59	\$ -	\$ 83	\$ 661	0.0
Franchises	17	12,572	9,047	1,135	5	175	0	248	1,962	0.0
Land & Ld Rights SS	2	5,372	4,607	655	3	94	0	2	11	0.0
Land & Ld Rights P	6	1,193	976	137	1	20	0	9	50	0.0
Land & Ld Rights WT	2	5,372	4,607	655	3	94	0	2	11	0.0
Land & Ld Rights TD	7	266,396	182,854	24,135	107	3,463	0	8,551	47,285	0.0
Land & Land Rights AG	15	0	0	0	0	0	0	0	0	0.0
Struct & Imp SS	2	0	0	0	0	0	0	0	0	0.0
Struct & Imp P	6	1,121,645	917,730	128,989	673	18,619	0	8,525	47,109	0.0
Struct & Imp Pumps (STL)	6	0	0	0	0	0	0	0	0	0.0
Struct & Imp Pump Boosters	6	0	0	0	0	0	0	0	0	0.0
Struct & Imp WT	2	0	0	0	0	0	0	0	0	0.0
Struct & Imp WT Nth Plt (ST)	2	0	0	0	0	0	0	0	0	0.0
Struct & Imp WT Ctrl Plt 1	2	0	0	0	0	0	0	0	0	0.0
Struct & Imp WT Ctrl Plt 3	2	0	0	0	0	0	0	0	0	0.0
Struct & Imp WT Sth Plt (ST)	2	0	0	0	0	0	0	0	0	0.0
Struct & Imp WT Meramec (ST)	2	0	0	0	0	0	0	0	0	0.0
Struct & Imp TD	7	261,432	179,447	23,686	105	3,399	0	8,392	46,404	0.0
Struct & Imp TD Spec Cross	7	0	0	0	0	0	0	0	0	0.0
Struct & Imp Offices	15	201,715	169,824	11,599	40	1,412	0	3,066	15,774	0.0
Struct & Imp Leasehold	15	0	0	0	0	0	0	0	0	0.0
Struct & Imp Leasehold	15	0	0	0	0	0	0	0	0	0.0
Struct & Imp Store,Shop,Gar	15	0	0	0	0	0	0	0	0	0.0
Struct & Imp Misc	15	965	812	55	0	7	0	15	75	0.0
Collect & Impounding	1	0	0	0	0	0	0	0	0	0.0
Lake, River & Other Intakes	2	0	0	0	0	0	0	0	0	0.0
Wells & Springs	2	0	0	0	0	0	0	0	0	0.0
Supply Mains	2	0	0	0	0	0	0	0	0	0.0
Supply Mains Nth Plt (STL)	2	0	0	0	0	0	0	0	0	0.0
Supply Mains Ctrl Plt (STL)	2	0	0	0	0	0	0	0	0	0.0
Supply Mains Sth Plt (STL)	2	0	0	0	0	0	0	0	0	0.0
Supply Mains Meramec Plt (S)	2	0	0	0	0	0	0	0	0	0.0
Power Generation Equip Othe	6	218,842	179,057	25,167	131	3,633	0	1,663	9,191	0.0
Boiler Plant Equipment P	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Steam	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Electric	6	1,500,581	1,227,775	172,567	900	24,910	0	11,404	63,024	0.0
Pump Equip Elec Pre46 (STL)	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Elec Post46 (STL)	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Elec Boosters Po	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Diesel	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Diesel Stratman	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Diesel Ctrl Plt	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Hydraulic	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Other	6	825	675	95	0	14	0	6	35	0.0
WT Equip Non-Media	2	13,411	11,501	1,635	8	235	0	5	27	0.0
WT Equip Non-Med North (STL)	2	0	0	0	0	0	0	0	0	0.0
WT Equip Non Media Ctrl 1 &	2	0	0	0	0	0	0	0	0	0.0
WT Equip Non Media Ctrl 3 (	2	0	0	0	0	0	0	0	0	0.0
WT Equip Non Media Sth (STL)	2	0	0	0	0	0	0	0	0	0.0
WT Equip Non Media Mor (STL)	2	0	0	0	0	0	0	0	0	0.0
WT Equip Filter Media	2	0	0	0	0	0	0	0	0	0.0
Dist Reservoirs & Standpipe	5	1,043,277	673,018	88,783	417	12,728	0	41,001	227,330	0.0

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY									
Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Protection	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Private	Public
Elevated Tanks & Standpipes	5	140,395	90,569	11,948	56	1,713	0	5,518	30,592
Ground Level Facilities	5	0	0	0	0	0	0	0	0
TD Mains Not Classified by	7	11,347,666	7,789,038	1,028,099	4,539	147,520	0	364,260	2,014,211
TD Mains 4 & Less	4	472,771	324,510	42,833	189	6,146	0	15,176	83,917
TD Mains 6 to 8"	4	5,348,419	3,671,155	484,567	2,139	69,529	0	171,684	949,344
TD Mains 10 to 16"	3	12,141,525	9,514,099	1,353,780	6,071	194,264	0	163,911	909,400
TD Mains 18 & Grtr	3	5,010,835	3,926,490	558,708	2,505	80,173	0	67,646	375,312
TD Mains AC 4 (STL)	4	0	0	0	0	0	0	0	0
TD Mains CI <10 1900-28 (S"	4	0	0	0	0	0	0	0	0
TD Mains CI <10 1929-56 (S"	4	0	0	0	0	0	0	0	0
TD Mains CI <10 1957-93 (S"	4	0	0	0	0	0	0	0	0
TD Mains CI 12 (STL)	3	0	0	0	0	0	0	0	0
TD Mains CI 16 (STL)	3	0	0	0	0	0	0	0	0
TD Mains DI 6-8 (STL)	4	0	0	0	0	0	0	0	0
TD Mains DI 12 (STL)	3	0	0	0	0	0	0	0	0
TD Mains DI 16 & >(STL)	3	0	0	0	0	0	0	0	0
TD Mains Galve 1 (STL)	4	0	0	0	0	0	0	0	0
TD Mains LJ 20 (STL)	3	0	0	0	0	0	0	0	0
Fire Mains	8	201,812	0	0	0	0	0	0	201,812
Services	10	3,498,015	3,243,709	155,662	350	17,840	0	80,454	0
Meters Bronze Case	9	734,555	648,832	63,539	147	22,037	0	0	0
Meters Plastic Case	9	0	0	0	0	0	0	0	0
Meters Other	9	8,697	7,682	752	2	261	0	0	0
Meters Other-Rem Rdr Units	9	0	0	0	0	0	0	0	0
Meter Installations	9	2,609,414	2,304,895	225,714	522	78,282	0	0	0
Meter Installation Other	9	(388,359)	(343,038)	(33,593)	(78)	(11,651)	0	0	0
Hydrants	8	2,541,659	0	0	0	0	0	0	2,541,659
Other P/E Intangible	15	0	0	0	0	0	0	0	0
Other P/E WT Res Hand Equip	2	0	0	0	0	0	0	0	0
Other P/E TD	7	2,940	2,018	266	1	38	0	94	522
Other P/E CPS	15	(307,356)	(258,763)	(17,673)	(61)	(2,151)	0	(4,672)	(24,035)
Office Furniture & Equip	15	14,112	11,881	811	3	99	0	215	1,104
Comp & Periph Equip	15	23,014	19,375	1,323	5	161	0	350	1,800
Computer Software	15	106,692	89,824	6,135	21	747	0	1,822	8,343
Comp Software Personal	15	106,503	89,665	6,124	21	746	0	1,619	8,329
Data Handling Equipment	15	0	0	0	0	0	0	0	0
Other Office Equipment	15	221	186	13	0	2	0	3	17
Trans Equip Lt Duty Trks	15	101,141	85,151	5,816	20	708	0	1,537	7,909
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0
Trans Equip Autos	15	4,021	3,385	231	1	28	0	61	314
Trans Equip Other	15	812	684	47	0	6	0	12	63
Stores Equipment	15	66	56	4	0	0	0	1	5
Tools,Shop,Garage Equip	15	53,782	45,279	3,092	11	376	0	817	4,206
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0
Laboratory Equipment	2	(229)	(196)	(28)	(0)	(4)	0	(0)	(0)
Laboratory Equip Other	2	0	0	0	0	0	0	0	0
Power Operated Equipment	15	74,852	63,018	4,304	15	524	0	1,138	5,853
Comm Equip Non-Telephone	15	19,686	16,574	1,132	4	138	0	299	1,539
Comm Equip Telephone	15	(9,018)	(7,592)	(519)	(2)	(63)	0	(137)	(705)
Misc Equipment	15	78,136	65,783	4,493	16	547	0	1,188	6,110
Other Tangible Property	17	795,683	572,573	71,850	318	11,060	0	15,675	124,206
Total Utility Plant in Service		49,390,294	35,541,819	4,459,105	19,211	687,936	0	971,445	7,710,778

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY									
Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Protection Private	Public
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Other Rate Base Items									
Add:									
Other Utility Plant Adjustments	17	0	0	0	0	0	0	0	0
Cash Working Capital	15	(264,691)	(222,843)	(15,220)	(53)	(1,853)	0	(4,023)	(20,699)
Materials and Supplies	15	126,581	106,569	7,278	25	886	0	1,924	9,899
Prepayments	15	34	29	2	0	0	0	1	3
OPEB's Contributed to External Fund	16	144,899	123,483	8,143	29	1,000	0	2,014	10,230
Premature Retirement	17	0	0	0	0	0	0	0	0
Regulatory Deferrals	17	0	0	0	0	0	0	0	0
Less:									
Accumulated Deferred ITC (3%)	17	(15,776,643)	(11,352,872)	(1,424,631)	(6,311)	(219,295)	0	(310,800)	(2,462,734)
Deferred Income Taxes	17	(1,878,250)	(1,351,589)	(169,606)	(751)	(26,108)	0	(37,002)	(293,195)
Pensions	16	(183,690)	(156,541)	(10,323)	(37)	(1,267)	0	(2,553)	(12,969)
Total Other Rate Base Elements		(17,831,760)	(12,853,765)	(1,604,356)	(7,097)	(246,637)	0	(350,439)	(2,769,465)
Total Original Cost Measure of Value		\$ 31,558,534	\$ 22,688,055	\$ 2,854,749	\$ 12,114	\$ 441,298	\$ -	\$ 621,005	\$ 4,941,313

T&D OP BASIS FOR FACTOR 11	291,468	210,420	24,356	103	3,440	0	8,993	44,156	0.0
FACTOR 11		0.7218	0.0836	0.0004	0.0118	0.0000	0.0309	0.1515	1.0000
T&D Mnt BASIS FOR FACTOR 12	73,922	51,326	4,845	18	769	0	1,701	15,263	0.0
FACTOR 12		0.6944	0.0655	0.0002	0.0104	0.0000	0.0230	0.2065	1.0000
A&G BASIS FOR FACTOR 15	1,102,785	928,389	63,440	242	7,766	0	16,711	86,238	0.0
FACTOR 15		0.8419	0.0575	0.0002	0.0070	0.0000	0.0152	0.0782	1.0000
LABOR BASIS FOR FACTOR 16	608,847	518,869	34,221	127	4,181	0	8,443	43,005	0.0
FACTOR 16		0.8522	0.0562	0.0002	0.0069	0.0000	0.0139	0.0706	1.0000
UPIS BASIS FOR FACTOR 17	48,577,805	34,957,152	4,385,738	18,886	676,642	0	955,438	7,583,948	0.0
FACTOR 17		0.7196	0.0903	0.0004	0.0139	0.0000	0.0197	0.1561	1.0000
RATE BASE BASIS FOR FACTOR 18	31,558,534	22,688,055	2,854,749	12,114	441,298	0	621,005	4,941,313	0.0
FACTOR 18		0.7188	0.0905	0.0004	0.0140	0.0000	0.0197	0.1566	1.0000
TOTAL COS BASIS FOR FACTOR 19	6,942,904	5,349,366	579,565	2,562	85,212	0	113,944	812,254	0.0
FACTOR 19		0.7704	0.0835	0.0004	0.0123	0.0000	0.0164	0.1170	1.0000
COS w/o Fire Factor 20	6,066,546	5,393,873	584,202	2,584	85,887	0			6,066,546
FACTOR 20		0.8891	0.0963	0.0004	0.0142	0.0000			1.0000

Table of Factors - Table Name "FACTORS"

	2 Residential	4 Commercial	6 Industrial	8 Public	10 Resale	12 Private Fire	14 Public Fire	20 Total
1	0.8358	0.1384	0.0008	0.0198	-	0.0008	0.0044	1.0000
2	0.8576	0.1219	0.0006	0.0175	-	0.0004	0.0020	1.0000
3	0.7836	0.1115	0.0005	0.0160	-	0.0135	0.0749	1.0000
4	0.6864	0.0906	0.0004	0.0130	-	0.0321	0.1775	1.0000
5	0.6451	0.0851	0.0004	0.0122	-	0.0393	0.2179	1.0000
6	0.8182	0.1150	0.0006	0.0166	-	0.0076	0.0420	1.0000
7	0.6864	0.0906	0.0004	0.0130	-	0.0321	0.1775	1.0000
8	-	-	-	-	-	-	1.0000	1.0000

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY										
Account	Factor Ref.	Cost of Service	Residential	Commercial	Industrial	Public Authorities	Sales for Resale	Fire Protection		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	Private (9)	Public (10)	
			9	0.8833	0.0865	0.0002	0.0300	-	-	1.0000
			10	0.9273	0.0445	0.0001	0.0051	-	0.0230	1.0000
			11	0.7218	0.0836	0.0004	0.0118	-	0.0309	1.0000
			12	0.6944	0.0655	0.0002	0.0104	-	0.0230	1.0000
			13	0.9584	0.0338	0.0001	0.0022	-	0.0055	1.0000
			14	0.9636	0.0340	0.0001	0.0023	-	-	1.0000
			15	0.8419	0.0575	0.0002	0.0070	-	0.0152	1.0000
			16	0.8522	0.0562	0.0002	0.0069	-	0.0139	1.0000
			17	0.7196	0.0903	0.0004	0.0139	-	0.0197	1.0000
			18	0.7188	0.0905	0.0004	0.0140	-	0.0197	1.0000
			19	0.7704	0.0835	0.0004	0.0123	-	0.0164	1.0000
			20	0.8891	0.0963	0.0004	0.0142	-	-	1.0000

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

		Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
OPERATION AND MAINTENANCE EXPENSES								
SOURCE OF SUPPLY EXPENSES								
Super & Eng Oper SS	2	0	0	0	0	0	0	0
Labor & Exp Oper SS	2	0	0	0	0	0	0	0
Labor & Exp Oper SS	2	(134)	(60)	(74)	0	0	0	(0)
Purchased Water	1	526,058	523,322	0	0	0	0	2,736
TOTAL SS EXPENSE - OPERATION		525,924	523,263	(74)	0	0	0	2,735
MAINTENANCE EXPENSES								
Misc Exp Oper SS	2	(18)	(8)	(10)	0	0	0	(0)
Misc Exp Oper SS	2	6	3	3	0	0	0	0
Rents Oper SS	2	0	0	0	0	0	0	0
Super & Eng Maint SS	2	0	0	0	0	0	0	0
Struct & Improve Maint SS	2	0	0	0	0	0	0	0
Struct & Improve Maint SS	2	157	70	87	0	0	0	0
Collect & Impound Maint SS	2	0	0	0	0	0	0	0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0
Infil Gall & Tunnels Maint SS	2	0	0	0	0	0	0	0
Supply Mains Maint SS	2	0	0	0	0	0	0	0
Misc Plant Maint SS	2	0	0	0	0	0	0	0
Misc Plant Maint SS	2	18,097	8,057	9,997	0	0	0	43
TOTAL SS EXPENSE - MAINTENANCE		18,242	8,121	10,077	0	0	0	44
TOTAL SS EXPENSE		544,166	531,384	10,003	0	0	0	2,779
POWER AND PUMPING EXPENSES								
Super & Eng Oper P	6	0	0	0	0	0	0	0
Fuel for Power Prod	1	0	0	0	0	0	0	0
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0
Purch Fuel/Power for Pump	1	62,383	62,059	0	0	0	0	324
Labor & Exp Oper Pump	6	23,459	9,451	10,474	2,369	0	0	1,165
Labor & Exp Oper Pump	6	3	1	1	0	0	0	0
Expenses Transferred	6	0	0	0	0	0	0	0
Misc Exp Oper P	6	2	1	1	0	0	0	0
Rents Oper P	6	226	91	101	23	0	0	11
TOTAL PUMPING EXPENSE - OPERATION		86,073	71,602	10,578	2,392	0	0	1,501

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Super & Eng Maint P	6	0	0	0	0	0	0	0	0
Struct & Improve Maint P	6	2,083	839	930	210	0	0	0	103
Power Prod Equip Maint P	6	6,344	2,556	2,833	641	0	0	0	315
Pump Equip Maint P	6	6,006	2,420	2,682	606	0	0	0	298
Pump Equip Maint P	6	0	0	0	0	0	0	0	0
TOTAL PUMPING EXPENSES - MAINTENANCE		14,433	5,814	6,444	1,457	0	0	0	717
TOTAL PUMPING EXPENSES		100,506	77,417	17,022	3,849	0	0	0	2,218
WATER TREATMENT									
Super & Eng Oper WT	2	0	0	0	0	0	0	0	0
Chemicals	1	(4,642)	(4,618)	0	0	0	0	0	(24)
Labor & Exp Oper WT	2	0	0	0	0	0	0	0	0
Labor & Exp Oper WT	2	(1)	(0)	(1)	0	0	0	0	(0)
Misc Exp Oper WT	2	0	0	0	0	0	0	0	0
Misc Exp Oper WT	1	(5)	(5)	0	0	0	0	0	(0)
Misc Exp Oper WT	2	(1)	(0)	(1)	0	0	0	0	(0)
Rents Oper WT	2	0	0	0	0	0	0	0	0
TOTAL WT EXPENSE - OPERATION		(4,649)	(4,624)	(1)	0	0	0	0	(24)
Super & Eng Maint WT	2	0	0	0	0	0	0	0	0
Struct & Improve Maint WT	2	0	0	0	0	0	0	0	0
Struct & Improve Maint WT	2	0	0	0	0	0	0	0	0
WT Equip Maint WT	2	0	0	0	0	0	0	0	0
WT Equip Maint WT	2	1	0	1	0	0	0	0	0
TOTAL WT EXPENSE - MAINTENANCE		1	0	1	0	0	0	0	0
TOTAL WT EXPENSE		(4,648)	(4,623)	(1)	0	0	0	0	(24)
TRANSMISSION AND DISTRIBUTION EXPENSES									
Super & Eng Oper TD	11	163	33	0	77	0	24	0	30
Storage Facility Exp	5	121	27	0	63	0	0	0	31
Storage Facility Exp	5	5,220	1,157	0	2,721	0	0	0	1,343
TD Lines Exp	7	33,850	7,985	0	18,770	0	0	0	7,095
TD Lines Exp	7	208,358	49,152	0	115,535	0	0	0	43,672
Meter Expense	9	69	0	0	0	69	0	0	0
Meter Expense	9	0	0	0	0	0	0	0	0
Customer Install Exp	10	43,850	0	0	0	0	42,841	0	1,009
Customer Install Exp	10	0	0	0	0	0	0	0	0
Misc Exp Oper TD	11	25,424	5,087	0	11,959	5	3,737	0	4,635

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Misc Exp Oper TD	11	0	0	0	0	0	0	0	0
Misc Exp Oper TD	11	2,294	459	0	1,079	0	337	0	418
Rents Oper TD	11	1	0	0	0	0	0	0	0
TOTAL T & D EXPENSE OPERATION		319,350	63,900	0	150,204	75	46,940	0	58,232
Super & Eng Maint TD	12	4	0	0	1	0	1	0	1
Struct & Improve Maint TD	12	0	0	0	0	0	0	0	0
Struct & Improve Maint TD	12	0	0	0	0	0	0	0	0
Dist Res Stand Maint TD	5	0	0	0	0	0	0	0	0
TD Main Maint TD	7	36,851	8,693	0	20,434	0	0	0	7,724
TD Main Maint TD	7	0	0	0	0	0	0	0	0
Fire Main Maint TD	8	0	0	0	0	0	0	0	0
Services Maint TD	10	22,522	0	0	0	0	22,004	0	518
Services Maint TD	10	0	0	0	0	0	0	0	0
Meters Maint TD	9	5,827	0	0	0	5,827	0	0	0
Meters Maint TD	9	0	0	0	0	0	0	0	0
Hydrants Maint TD	8	8,722	0	0	0	0	0	0	8,722
Hydrants Maint TD	8	0	0	0	0	0	0	0	0
Misc Plant Maint TD	12	12,861	1,512	0	3,555	1,013	3,829	0	2,952
Mat and Sup Maint TD	12	88,626	10,422	0	24,496	6,984	26,384	0	20,340
Misc Maint TD	12	0	0	0	0	0	0	0	0
Amort Def Maint TD	5	0	0	0	0	0	0	0	0
TOTAL T & D EXPENSE - MAINTENANCE		175,413	20,628	0	48,486	13,824	52,218	0	40,256
TOTAL T & D EXPENSE		494,763	84,528	0	198,690	13,899	99,158	0	98,488
CUSTOMER ACCOUNTS									
Supervision CA	13	21,943	0	0	0	0	0	21,822	121
Meter Reading Exp CA	14	92,934	0	0	0	0	0	92,934	0
Meter Reading Exp CA	14	36	0	0	0	0	0	36	0
Meter Reading Exp CA	14	0	0	0	0	0	0	0	0
Cust Rec & Collection CA	13	83,054	0	0	0	0	0	82,597	457
Cust Rec & Collection CA	13	100,213	0	0	0	0	0	99,662	551
Uncollectible Accts	13	28,420	0	0	0	0	0	28,264	156
Misc Cust Accts Exp CA	13	9,064	0	0	0	0	0	9,014	50
Misc Cust Accts Exp CA	13	378	0	0	0	0	0	376	2
Misc Cust Accts Exp CA	13	9,253	0	0	0	0	0	9,202	51
Cust Serv & Info Exp CA	13	206,497	0	0	0	0	0	205,361	1,136
TOTAL CUSTOMER ACCOUNTING EXPENSE		551,792	0	0	0	0	0	549,268	2,524
ADMINISTRATIVE AND GENERAL EXPENSES									
Salaries AG	15	173,696	17,005	4,256	31,908	2,189	15,615	86,501	16,223
Other Supplies & Exp AG	15	7	1	0	1	0	1	3	1
Other Supplies & Exp AG	15	48,003	4,699	1,176	8,818	605	4,315	23,905	4,483
Other Supplies & Exp AG	15	2,762	270	68	507	35	248	1,375	258
Mgmt Fees-Coporate/Shared Service Center	15	157,143	15,384	3,850	28,867	1,980	14,127	78,257	14,677
Mgmt Fees-Call Center	13	84,711	0	0	0	0	0	84,245	466
Mgmt Fees-Belleville Lab	2	23,763	10,579	13,127	0	0	0	0	57
Mgmt Fees- Financial ITS	15	8,245	807	202	1,515	104	741	4,106	770
Mgmt Fees- Customer Billings ITS	13	46,547	0	0	0	0	0	46,291	256
Mgmt Fees-Other ITS	15	524	51	13	96	7	47	261	49
Outside Services AG	15	32,581	3,190	798	5,985	411	2,929	16,225	3,043

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

		Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Outside Services AG	15	0	0	0	0	0	0	0
Property Insurance	15	0	0	0	0	0	0	0
Ins Gen Liab Oper AG	15	0	0	0	0	0	0	0
Ins Work Comp AG	16	16,032	1,464	558	2,386	240	2,318	1,355
Ins Other Oper AG	15	30,113	2,948	738	5,532	379	2,707	14,996
Property Insurance	15	23,024	2,254	564	4,230	290	2,070	11,466
Injuries & Damages	16	1,498	137	52	223	22	217	721
Employee Pension & Benefits	16	218,279	19,929	7,596	32,480	3,274	31,563	104,992
Employee Pension & Benefits	16	0	0	0	0	0	0	0
Employee Pension & Benefits	16	0	0	0	0	0	0	0
Reg Commision Exp	15	5,562	545	136	1,022	70	500	2,770
Rents AG	15	26,963	2,640	661	4,953	340	2,424	13,428
Goodwill Advertising Exp	15	0	0	0	0	0	0	0
Misc Exp AG	15	(18,956)	(1,856)	(464)	(3,482)	(239)	(1,704)	(9,440)
Research & Development	15	0	0	0	0	0	0	0
TOTAL A & G OPERATIONS		880,497	80,047	33,330	125,040	9,707	78,119	487,814
General Plant Maint AG	15	0	0	0	0	0	0	0
General Plant Maint AG	15	8,148	798	200	1,497	103	733	4,058
TOTAL A & G EXPENSE - MAINTENANCE		8,148	798	200	1,497	103	733	4,058
TOTAL A & G EXPENSE		888,645	80,845	33,529	126,537	9,810	78,852	491,872
Total Operation & Maintenance Expenses		2,575,224	769,550	60,554	329,076	23,709	178,010	1,041,141

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
DEPRECIATION EXPENSE									
Struct & Imp P	6	11,166	4,498	4,986	1,127	0	0	0	555
Struct & Imp WT	2	0	0	0	0	0	0	0	0
Struct & Imp TD	7	9,652	2,277	0	5,352	0	0	0	2,023
Struct & Imp Offices	15	7,898	773	194	1,451	100	710	3,933	738
Struct & Imp Store,Shop,Gar	15	0	0	0	0	0	0	0	0
Struct & Imp Misc	15	18	2	0	3	0	2	9	2
Collect & Impounding	1	0	0	0	0	0	0	0	0
Lake, River & Other Intakes	2	0	0	0	0	0	0	0	0
Wells & Springs	2	0	0	0	0	0	0	0	0
Supply Mains	2	0	0	0	0	0	0	0	0
Power Generation Equip Othe	6	6,765	2,725	3,021	683	0	0	0	336
Pump Equip Electric	6	35,778	14,413	15,975	3,613	0	0	0	1,777
Pump Equip Other	7	152	36	0	84	0	0	0	32
WT Equip Non-Media	2	301	134	168	0	0	0	0	1
Dist Reservoirs & Standpipe	5	29,269	6,486	0	15,255	0	0	0	7,528
Elevated Tanks & Standpipes	5	2,648	587	0	1,380	0	0	0	681
Ground Level Facilities	5	0	0	0	0	0	0	0	0
TD Mains Not Classified by	7	219,599	51,803	0	121,768	0	0	0	46,028
TD Mains 4 & Less "	4	6,191	1,460	0	3,433	0	0	0	1,298
TD Mains 6 to 8" "	4	70,071	16,530	0	38,854	0	0	0	14,687
TD Mains 10 to 16" "	3	158,986	64,691	80,240	0	0	0	0	14,054
TD Mains 18 & Grtr "	3	65,614	26,698	33,115	0	0	0	0	5,800
Fire Mains	8	2,963	0	0	0	0	0	0	2,963
Services	10	104,931	0	0	0	0	102,518	0	2,413
Meters Bronze Case	9	18,408	0	0	0	18,408	0	0	0
Meters Plastic Case	9	0	0	0	0	0	0	0	0
Meters Other	9	7,885	0	0	0	7,885	0	0	0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0	0
Meter Installations	9	64,261	0	0	0	64,261	0	0	0
Meter Installation Other	9	0	0	0	0	0	0	0	0
Hydrants	8	48,406	0	0	0	0	0	0	48,406
Utility Plant Acquisition Adjustment	17	0	0	0	0	0	0	0	0
Other P/E WT Res Hand Equip	2	0	0	0	0	0	0	0	0
Other P/E TD	7	52	12	0	29	0	0	0	11
Other P/E CPS	15	0	0	0	0	0	0	0	0
Office Furniture & Equip	15	262	26	6	48	3	24	130	24
Comp & Periph Equip	15	4,824	472	118	886	61	434	2,402	451
Computer Software	15	1,640	161	40	301	21	147	817	153
Comp Software Personal	15	0	0	0	0	0	0	0	0
Data Handling Equipment	15	0	0	0	0	0	0	0	0
Other Office Equipment	15	0	0	0	0	0	0	0	0
Trans Equip Lt Duty Trks	15	22,207	2,174	544	4,079	280	1,996	11,059	2,074
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0
Trans Equip Autos	15	1,140	112	28	209	14	102	568	106
Trans Equip Other	15	0	0	0	0	0	0	0	0
Stores Equipment	15	21	2	1	4	0	2	10	2
Tools,Shop,Garage Equip	15	4,172	408	102	766	53	375	2,078	390
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0
Laboratory Equipment	2	175	78	97	0	0	0	0	0
Laboratory Equip Other	2	0	0	0	0	0	0	0	0
Power Operated Equipment	15	9,244	905	226	1,698	116	831	4,604	863
Comm Equip Non-Telephone	15	993	97	24	182	13	89	495	93

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Comm Equip Telephone	15	333	33	8	61	4	30	166	31
Misc Equipment	16	2,971	271	103	442	45	430	1,429	251
Other Tangible Property	15	40,707	3,985	997	7,478	513	3,660	20,272	3,802
Total Depreciation Expense		959,703	201,851	139,993	209,189	91,776	111,349	47,972	157,573
Amort-Other UP	18	(76,372)	(19,895)	(15,725)	(17,008)	(4,689)	(5,430)	(160)	(13,464)
Taxes Other Than Income									
Utility Reg Assessment Fee	19	51,693	13,761	6,643	9,630	2,399	3,986	8,379	6,896
Property Taxes	18	681,188	177,449	140,257	151,701	41,825	48,432	1,430	120,093
FUTA	16	819	75	29	122	12	118	394	69
FICA	16	45,785	4,178	1,593	6,810	686	6,618	22,013	3,867
SUTA	16	(7)	(1)	(0)	(1)	(0)	(1)	(3)	(1)
Other Taxes & Licenses	15	18,919	1,852	464	3,475	238	1,701	9,422	1,767
Gross Receipts Tax	19	0	0	0	0	0	0	0	0
Total Taxes, Other Than Income		798,377	197,315	148,984	171,737	45,161	60,854	41,635	132,692
Income Taxes	18	590,935	153,939	121,674	131,601	36,283	42,015	1,241	104,182
Utility Income Available for Return	18	2,152,292	560,672	443,157	479,315	132,151	153,028	4,520	379,449
Total Cost of Service		7,000,159	1,863,432	898,635	1,303,911	324,390	539,826	1,136,348	933,617
Less: Other Water Revenues	19	149,175	39,710	19,169	27,791	6,922	11,501	24,181	19,900
Billing and Collecting Services	19	0	0	0	0	0	0	0	0
Total Other Water Revenues		149,175	39,710	19,169	27,791	6,922	11,501	24,181	19,900
Total Cost of Service Related to Sales of Water		6,850,984	1,823,722	879,466	1,276,120	317,469	528,325	1,112,166	913,717
Reallocation of Public Fire	20		375,226	180,952	262,559				818,737
Total		\$ 6,850,984	\$ 2,198,948	\$ 1,060,418	\$ 1,538,679	\$ 317,469	\$ 528,325	\$ 1,112,166	\$ 1,732,454
						31,054	28,483	336,558	
						10.22	18.56		
						0.85	1.55	3.30	
								5.70	

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
RATE BASE									
Organization	17	4,234	1,100	867	942	259	301	20	744
Franchises	17	12,572	3,267	2,575	2,796	768	895	60	2,210
Land & Ld Rights SS	2	5,372	2,392	2,967	0	0	0	0	13
Land & Ld Rights P	6	1,193	481	533	120	0	0	0	59
Land & Ld Rights WT	2	5,372	2,392	2,967	0	0	0	0	13
Land & Ld Rights TD	7	268,396	62,843	0	147,717	0	0	0	55,837
Land & Land Rights AG	15	0	0	0	0	0	0	0	0
Struct & Imp SS	2	0	0	0	0	0	0	0	0
Struct & Imp P	6	1,121,645	451,863	500,814	113,257	0	0	0	55,710
Struct & Imp Pumps (STL)	6	0	0	0	0	0	0	0	0
Struct & Imp Pump Boosters	6	0	0	0	0	0	0	0	0
Struct & Imp WT	2	0	0	0	0	0	0	0	0
Struct & Imp WT Nth Plt (ST)	2	0	0	0	0	0	0	0	0
Struct & Imp WT Ctrl Plt 1	2	0	0	0	0	0	0	0	0
Struct & Imp WT Ctrl Plt 3	2	0	0	0	0	0	0	0	0
Struct & Imp WT Sth Plt (ST)	2	0	0	0	0	0	0	0	0
Struct & Imp WT Meramec (ST)	2	0	0	0	0	0	0	0	0
Struct & Imp TD	7	261,432	61,672	0	144,964	0	0	0	54,796
Struct & Imp TD Spec Cross	7	0	0	0	0	0	0	0	0
Struct & Imp Offices	15	201,715	19,748	4,942	37,055	2,542	18,134	100,454	18,840
Struct & Imp Leasehold	15	0	0	0	0	0	0	0	0
Struct & Imp Leasehold	15	0	0	0	0	0	0	0	0
Struct & Imp Store,Shop,Gar	15	0	0	0	0	0	0	0	0
Struct & Imp Misc	15	965	94	24	177	12	87	481	90
Collect & Impounding	1	0	0	0	0	0	0	0	0
Lake, River & Other Intakes	2	0	0	0	0	0	0	0	0
Wells & Springs	2	0	0	0	0	0	0	0	0
Supply Mains	2	0	0	0	0	0	0	0	0
Supply Mains Nth Plt (STL)	2	0	0	0	0	0	0	0	0
Supply Mains Ctrl Plt (STL)	2	0	0	0	0	0	0	0	0
Supply Mains Sth Plt (STL)	2	0	0	0	0	0	0	0	0
Supply Mains Meramec Plt (S)	2	0	0	0	0	0	0	0	0
Power Generation Equip Othe	6	218,842	88,162	97,713	22,097	0	0	0	10,869
Boiler Plant Equipment P	6	0	0	0	0	0	0	0	0
Pump Equip Steam	6	0	0	0	0	0	0	0	0
Pump Equip Electric	6	1,500,581	604,520	670,009	151,520	0	0	0	74,531
Pump Equip Elec Pre46 (STL)	6	0	0	0	0	0	0	0	0
Pump Equip Elec Post46 (STL)	6	0	0	0	0	0	0	0	0
Pump Equip Elec Boosters Po	6	0	0	0	0	0	0	0	0
Pump Equip Diesel	6	0	0	0	0	0	0	0	0
Pump Equip Diesel Stratmanh	6	0	0	0	0	0	0	0	0
Pump Equip Diesel Ctrl Plt	6	0	0	0	0	0	0	0	0
Pump Equip Hydraulic	6	0	0	0	0	0	0	0	0
Pump Equip Other	6	825	332	368	83	0	0	0	41
WT Equip Non-Media	2	13,411	5,971	7,408	0	0	0	0	32
WT Equip Non-Med North (STL)	2	0	0	0	0	0	0	0	0
WT Equip Non Media Ctrl 1 &	2	0	0	0	0	0	0	0	0
WT Equip Non Media Ctrl 3 (	2	0	0	0	0	0	0	0	0
WT Equip Non Media Sth (STL)	2	0	0	0	0	0	0	0	0
WT Equip Non Media Mer (STL)	2	0	0	0	0	0	0	0	0
WT Equip Filter Media	2	0	0	0	0	0	0	0	0
Dist Reservoirs & Standpipe	5	1,043,277	231,190	0	543,756	0	0	0	268,331

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Elevated Tanks & Standpipes	5	140,395	31,112	0	73,174	0	0	0	36,110
Ground Level Facilities	5	0	0	0	0	0	0	0	0
TD Mains Not Classified by	7	11,347,666	2,676,914	0	6,292,281	0	0	0	2,378,471
TD Mains 4 & Less "	4	472,771	111,527	0	262,152	0	0	0	99,093
TD Mains 6 to 8" "	4	5,348,419	1,261,692	0	2,965,698	0	0	0	1,121,029
TD Mains 10 to 16" "	3	12,141,525	4,940,387	6,127,828	0	0	0	0	1,073,311
TD Mains 18 & Grtr "	3	5,010,835	2,038,909	2,528,968	0	0	0	0	442,958
TD Mains AC 4 (STL) "	4	0	0	0	0	0	0	0	0
TD Mains CI <10 1900-28 (S"	4	0	0	0	0	0	0	0	0
TD Mains CI <10 1929-56 (S"	4	0	0	0	0	0	0	0	0
TD Mains CI <10 1957-83 (S"	4	0	0	0	0	0	0	0	0
TD Mains CI 12 (STL) "	3	0	0	0	0	0	0	0	0
TD Mains CI 16 (STL) "	3	0	0	0	0	0	0	0	0
TD Mains DI 6-8 (STL) "	4	0	0	0	0	0	0	0	0
TD Mains DI 12 (STL) "	3	0	0	0	0	0	0	0	0
TD Mains DI 16 & >(STL) "	3	0	0	0	0	0	0	0	0
TD Mains Galve 1 (STL) "	4	0	0	0	0	0	0	0	0
TD Mains LJ 20 (STL) "	3	0	0	0	0	0	0	0	0
Fire Mains	8	201,812	0	0	0	0	0	0	201,812
Services	10	3,498,015	0	0	0	0	3,417,561	0	80,454
Meters Bronze Case	9	734,555	0	0	0	734,555	0	0	0
Meters Plastic Case	9	0	0	0	0	0	0	0	0
Meters Other	9	8,697	0	0	0	8,697	0	0	0
Meters Other-Rem Rdr Units	9	0	0	0	0	0	0	0	0
Meter Installations	9	2,609,414	0	0	0	2,609,414	0	0	0
Meter Installation Other	9	(388,359)	0	0	0	(388,359)	0	0	0
Hydrants	8	2,541,659	0	0	0	0	0	0	2,541,659
Other P/E Intangible	15	0	0	0	0	0	0	0	0
Other P/E WT Res Hand Equip	2	0	0	0	0	0	0	0	0
Other P/E TD	7	2,940	694	0	1,630	0	0	0	616
Other P/E CPS	15	(307,356)	(30,090)	(7,530)	(56,461)	(3,873)	(27,631)	(153,063)	(28,707)
Office Furniture & Equip	15	14,112	1,382	346	2,592	178	1,269	7,028	1,318
Comp & Periph Equip	15	23,014	2,253	564	4,228	290	2,069	11,461	2,150
Computer Software	15	106,692	10,445	2,614	19,599	1,344	9,592	53,133	9,965
Comp Software Personal	15	106,503	10,427	2,609	19,565	1,342	9,575	53,038	9,947
Data Handling Equipment	15	0	0	0	0	0	0	0	0
Other Office Equipment	15	221	22	5	41	3	20	110	21
Trans Equip Lt Duty Trks	15	101,141	9,902	2,478	18,580	1,274	9,093	50,368	9,447
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0
Trans Equip Autos	15	4,021	394	99	739	51	361	2,002	376
Trans Equip Other	15	812	79	20	149	10	73	404	76
Stores Equipment	15	66	6	2	12	1	6	33	6
Tools,Shop,Garage Equip	15	53,782	5,265	1,318	9,880	678	4,835	26,783	5,023
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0
Laboratory Equipment	2	(229)	(102)	(126)	0	0	0	0	(1)
Laboratory Equip Other	2	0	0	0	0	0	0	0	0
Power Operated Equipment	15	74,852	7,328	1,834	13,750	943	6,729	37,276	6,991
Comm Equip Non-Telephone	15	19,686	1,927	482	3,616	248	1,770	9,804	1,839
Comm Equip Telephone	15	(9,018)	(883)	(221)	(1,657)	(114)	(811)	(4,491)	(842)
Misc Equipment	15	78,136	7,650	1,914	14,354	985	7,024	38,912	7,298
Other Tangible Property	17	795,683	206,798	162,956	176,960	48,616	56,653	3,819	139,881
Total Utility Plant in Service		49,390,294	12,830,063	10,117,347	10,985,366	3,019,864	3,517,604	237,633	8,682,416

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

		Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Other Rate Base Items								
Add:								
Other Utility Plant Adjustments	17	0	0	0	0	0	0	0
Cash Working Capital	15	(264,691)	(25,913)	(6,485)	(48,624)	(3,335)	(23,796)	(131,816)
Materials and Supplies	15	128,581	12,392	3,101	23,253	1,595	11,380	63,037
Prepayments	15	34	3	1	6	0	3	17
OPEB's Contributed to External Fund	16	144,899	13,229	5,042	21,561	2,173	20,952	69,696
Premature Retirement	17	0	0	0	0	0	0	0
Regulatory Deferrals	17	0	0	0	0	0	0	0
Less:								
Accumulated Deferred ITC (3%)	17	(15,776,643)	(4,100,350)	(3,231,056)	(3,508,725)	(963,953)	(1,123,297)	(75,728)
Deferred Income Taxes	17	(1,878,250)	(488,157)	(384,666)	(417,723)	(114,761)	(133,731)	(9,016)
Pensions	16	(183,690)	(16,771)	(6,392)	(27,333)	(2,755)	(26,562)	(88,355)
Total Other Rate Base Elements		(17,831,760)	(4,605,566)	(3,620,455)	(3,957,585)	(1,081,036)	(1,275,051)	(172,164)
Total Original Cost Measure of Value		\$ 31,558,534	\$ 8,224,497	\$ 6,496,893	\$ 7,027,782	\$ 1,938,828	\$ 2,242,553	\$ 65,469
								\$ 5,562,512

T&D OP BASIS FOR FACTOR 11	291,468	58,320	0	137,088	69	42,841	0	53,149
FACTOR 11		0.2001	0.0000	0.4704	0.0002	0.1470	0.0000	0.1823
T&D Mnt BASIS FOR FACTOR 12	73,922	8,693	0	20,434	5,827	22,004	0	16,964
FACTOR 12		0.1176	0.0000	0.2764	0.0788	0.2977	0.0000	0.2295
A&G BASIS FOR FACTOR 15	1,102,785	107,947	27,024	202,539	13,899	99,158	549,268	102,949
FACTOR 15		0.0979	0.0245	0.1837	0.0126	0.0899	0.4981	0.0934
LABOR BASIS FOR FACTOR 16	608,847	55,608	21,174	90,593	9,103	88,052	292,868	51,448
FACTOR 16		0.0913	0.0348	0.1488	0.0150	0.1446	0.4810	0.0845
UPIS BASIS FOR FACTOR 17	48,577,805	12,618,897	9,950,950	10,804,669	2,970,221	3,459,755	233,733	8,539,581
FACTOR 17		0.2599	0.2048	0.2224	0.0611	0.0712	0.0048	0.1758
RATE BASE BASIS FOR FACTOR 18	31,558,534	8,224,497	6,496,893	7,027,782	1,938,828	2,242,553	65,469	5,562,512
FACTOR 18		0.2605	0.2059	0.2227	0.0614	0.0711	0.0021	0.1763
TOTAL COS BASIS FOR FACTOR 19	6,942,904	1,849,127	891,856	1,293,259	321,922	535,340	1,125,198	926,202
FACTOR 19		0.2662	0.1285	0.1863	0.0464	0.0771	0.1621	0.1334
CQS w/o Fire Factor 20	4,065,978	1,863,432	898,635	1,303,911				
FACTOR 20		0.4583	0.2210	0.3207				

	2	4	6	8	10	12	14
	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
1	0.9948	-	-	-	-	-	0.0052
2	0.4452	0.5524	-	-	-	-	0.0024
3	0.4069	0.5047	-	-	-	-	0.0884
4	0.2359	-	0.5545	-	-	-	0.2096
5	0.2216	-	0.5212	-	-	-	0.2572
6	0.4029	0.4465	0.1010	-	-	-	0.0497
7	0.2359	-	0.5545	-	-	-	0.2096
8	-	-	-	-	-	-	1.0000

MISSOURI-AMERICAN WATER COMPANY
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COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
9	-	-	-	1.0000	-	-	-
10	-	-	-	-	0.9770	-	0.0230
11	0.2001	-	0.4704	0.0002	0.1470	-	0.1823
12	0.1176	-	0.2764	0.0788	0.2977	-	0.2295
13	-	-	-	-	-	0.9945	0.0055
14	-	-	-	-	-	1.0000	-
15	0.0979	0.0245	0.1837	0.0126	0.0899	0.4980	0.0934
16	0.0913	0.0348	0.1488	0.0150	0.1446	0.4810	0.0845
17	0.2599	0.2048	0.2224	0.0611	0.0712	0.0048	0.1758
18	0.2605	0.2059	0.2227	0.0614	0.0711	0.0021	0.1763
19	0.2662	0.1285	0.1863	0.0464	0.0771	0.1621	0.1334
20	0.4583	0.2210	0.3207				

**MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
PSC STAFF STUDY**

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1.

ALLOCATION OF COSTS THAT VARY WITH THE AMT OF WATER CONSUMED.

Factors are based on the pro forma test year average daily consumption for each customer classification.

Customer Classification (1)	Average Daily Consumption, Thousand Gallons (2)	Allocation Factor (3)
Residential	7,247.77	0.8358
Commercial	1,200.30	0.1384
Industrial	6.65	0.0008
Other Public Authority	171.74	0.0198
Sales for Resale	0.00	0.0000
Private Fire Protection	6.88	0.0008
Public Fire Protection	38.12	0.0044
Total	8,671.46	1.0000

FACTOR 2.

**ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND
MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.**

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors derived from maximum day extra capacity demand for each customer classification, as follows:

Customer Classification (1)	Average Daily Consumption		Maximum Day Extra Capacity		Allocation Factor (6)=(3)+(5)
	Allocation Factor 1 (2)	Weighted Factor (3)=(2)x 0.4476	Allocation Factor (4)	Weighted Factor (5)=(4)x 0.5524	
Residential	0.8358	0.3740	0.8753	0.4835	0.8576
Commercial	0.1384	0.0619	0.1087	0.0600	0.1219
Industrial	0.0008	0.0004	0.0004	0.0002	0.0006
Other Public Authority	0.0198	0.0089	0.0156	0.0086	0.0175
Sales for Resale	0.0000	0.0000	0.0000	0.0000	0.0000
Private Fire Protection	0.0008	0.0004			0.0004
Public Fire Protection	0.0044	0.0020			0.0020
Total	1.0000	0.4476	1.0000	0.5523	1.0000

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and 5 weightings are presented on the following page.

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

**FACTOR 2. MAX DAY CLASS ALLOCATION AND MAX DAY TO AVERAGE DAY
MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.**

Customer Classification	Average Daily Consumption, Thousand Gal.	Maximum Day Extra Capacity		
		Factor*	Rate of Flow, Thousand Gal. Per Day	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	7,248	1.00	7,248	0.8753
Commercial	1,200	0.75	900	0.1087
Industrial	7	0.50	3	0.0004
Other Public Authority	172	0.75	129	0.0156
Sales for Resale	0	0.90	0	0.0000
Total	8,626		8,280	1.0000

The weighting of the factors is based on the maximum day ratio of 2.23, based on a review of maximum day ratios experienced during the period 1994 through 2002 (see Schedule D).

	Maximum Day Ratio	Weight
Average Day	1.00	0.4476
Maximum Day Extra Capacity	1.23	0.5524
Total	2.23	1.0000

* Ratio of maximum day to average day minus 1.0.

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3.

**ALLOCATION OF COSTS ASSOC. WITH FACILITIES SERVING BASE, MAX DAY EXTRA CAPACITY
AND FIRE PROTECTION FUNCTIONS.**

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

Customer Classification	Average Daily Consumption		Maximum Day Extra Capacity		Fire Protection		Allocation Factor
	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	
(1)	(2)	(3)=(2) X 0.4090	(4)	(5)=(4) X 0.5047	(6)	(7)=(6) X 0.0863	(8)=(3)+(5)+(7)
Residential	0.8358	0.3419	0.8753	0.4417			0.7836
Commercial	0.1384	0.0566	0.1087	0.0549			0.1115
Industrial	0.0008	0.0003	0.0004	0.0002			0.0005
Other Public Authority	0.0198	0.0081	0.0156	0.0079			0.0160
Sales for Resale	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire Protection	0.0008	0.0003			0.1529	0.0132	0.0135
Public Fire Protection	0.0044	0.0018			0.8471	0.0731	0.0749
Total	1.0000	0.4090	1.0000	0.5047	1.0000	0.0863	1.0000

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3.

**ALLOCATION OF COSTS ASSOC. WITH FACILITIES SERVING BASE, MAX DAY EXTRA CAPACITY
AND FIRE PROTECTION FUNCTIONS.**

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 3.34 and the average daily system sendout for 2002 of 9.10 MGD. The system demand for fire protection is 8,000 Gallons per minute for 4 hours.

	<u>Ratio</u>	<u>Rate of Flow, (GPD)</u>	<u>Weight</u>
Average Day	1.00	9,100,000	0.4090
Maximum Day Extra Capacity	<u>1.23</u>	<u>11,229,400</u>	<u>0.5047</u>
Subtotal	<u>2.23</u>	20,329,400	0.9137
Fire Protection		<u>1,920,000</u>	<u>0.0863</u>
Total		<u>22,249,400</u>	<u>1.0000</u>

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule E).

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4.

ALLOCATION OF COSTS ASSOC. WITH FACILITIES SERVING BASE AND MAX HOUR EXTRA CAPACITY FUNCT'S.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

Customer Classification	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		Allocation Factor
	Thousand Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	
(1)	(2)	(3)	(4)=(3) X 0.2371	(5)	(6)=(5) X 0.5545	(7)	(8)=(7) X 0.2084	(9)=(4)+(6)+(8)
Residential	302.0	0.8358	0.1982	0.8806	0.4882			0.6864
Commercial	50.0	0.1384	0.0328	0.1042	0.0578			0.0906
Industrial	0.3	0.0008	0.0002	0.0003	0.0002			0.0004
Other Public Authority	7.2	0.0198	0.0047	0.0149	0.0083			0.0130
Sales for Resale	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire Protection	0.3	0.0008	0.0002			0.1529	0.0319	0.0321
Public Fire Protection	1.6	0.0044	0.0010			0.8471	0.1765	0.1775
Total	361.3	1.0000	0.2371	1.0000	0.5545	1.0000	0.2084	1.0000

The maximum hour extra capacity factors in column 5 are determined as follows:

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4.

ALLOCATION OF COSTS ASSOC. WITH FACILITIES SERVING BASE AND MAX HOUR EXTRA CAPACITY FUNCT'S.

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 3.34 and the average daily system sendout for 2002 of 9,100 MGD. The system demand for fire protection is 8,000 gallons per minute.

	Ratio	Rate of Flow, (GPM)	Weight
Average Hour	1.00	9,100	0.2371
Maximum Hour			
Extra Capacity	2.34	21,287	0.5545
Subtotal	3.34	30,387	0.7916
Fire Protection		8,000	0.2084
Total		38,387	1.0000

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

Customer Classification	Average Hourly Consumption Thousand Gal.	Maximum Hour Extra Capacity		
		Factor*	1,000 Gallons Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	302.0	3.5	1,057.0	0.8806
Commercial	50.0	2.5	125.0	0.1042
Industrial	0.3	1.2	0.3	0.0003
Other Public Authority	7.2	2.5	17.9	0.0149
Sales for Resale	0.0	3.2	0.0	0.0000
Total	359.4		1,200.2	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands (see Schedule E).

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5.

ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

Customer Classification	Average Hourly Consumption			Maximum Hour Extra Capacity		Fire Protection		Allocation Factor
	Thousand Gallons	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	Allocation Factor	Weighted Factor	
(1)	(2)	(3)	(4)=(3) X 0.2228	(5)	(6)=(5) X 0.5212	(7)	(8)=(7) X 0.2560	(9)=(4)+(6)+(8)
Residential	302.0	0.8358	0.1862	0.8806	0.4589			0.6451
Commercial	50.0	0.1384	0.0308	0.1042	0.0543			0.0851
Industrial	0.3	0.0008	0.0002	0.0003	0.0002			0.0004
Other Public Authority	7.2	0.0198	0.0044	0.0149	0.0078			0.0122
Sales for Resale	0.0	0.0000	0.0000	0.0000	0.0000			0.0000
Private Fire Protection	0.3	0.0008	0.0002			0.1529	0.0391	0.0393
Public Fire Protection	1.6	0.0044	0.0010			0.8471	0.2169	0.2179
Total	361.3	1.0000	0.2228	1.0000	0.5212	1.0000	0.2560	1.0000

The weighting of the factors is based on the ratio of the capacity required for a 4 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. Continued

ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.

The weighting of the factors is based on the ratio of the capacity required for a 4 hour demand of fire flow, as related to total storage capacity.

$$\text{Fire Protection Weight} = \frac{8,000 \text{ GPM} \times 60 \text{ Min.} \times 4 \text{ Hrs.}}{7,500,000 \text{ Gallons}} = 0.2560$$

$$\text{General Service Weight} = 1.0000 - 0.2560 = 0.7440$$

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

	<u>Maximum Hour Ratio</u>	<u>Percent</u>	<u>Weight</u>
Average Hour	1.00	29.95	0.2228
Extra Capacity Maximum Hour	<u>2.34</u>	<u>70.05</u>	<u>0.5212</u>
Total	3.34	100.00	<u><u>0.7440</u></u>

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 6.

ALLOCATION OF COSTS ASSOCIATED WITH POWER AND PUMPING FACILITIES.

Factors are based on the weighting of the maximum daily consumption, Factor 2, the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

Customer Classification	Maximum Daily Consumption		Maximum Daily Consumption		Maximum Hourly Consumption		Allocation
	Allocation Factor 2	Weighted Factor	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	
(1)	(2)	(3)=(2)X 0.7065	(4)	(5)=(4)X 0.1114	(6)	(7)=(6)X 0.1821	(8)=(3)+ (5)+(7)
Residential	0.8576	0.6059	0.7836	0.0873	0.6864	0.1250	0.8182
Commercial	0.1219	0.0861	0.1115	0.0124	0.0906	0.0165	0.1150
Industrial	0.0006	0.0004	0.0005	0.0001	0.0004	0.0001	0.0006
Other Public Authority	0.0175	0.0124	0.0160	0.0018	0.0130	0.0024	0.0166
Sales for Resale	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Private Fire Protection	0.0004	0.0003	0.0135	0.0015	0.0321	0.0058	0.0076
Public Fire Protection	0.0020	0.0014	0.0749	0.0083	0.1775	0.0323	0.0420
Total	1.0000	0.7065	1.0000	0.1114	1.0000	0.1821	1.0000

The weighting of the factors is based on the horsepower of pumps associated with maximum day facilities, maximum day and fire facilities, and maximum hour facilities, as follows:

	Horsepower of Pumps	Weight
Associated with Maximum Day	1,300	0.7065
Associated with Maximum Day and Fire	205	0.1114
Associated with Maximum Hour	335	0.1821
Total	1,840	1.0000

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 7.

ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

Customer Classification	Maximum Daily Consumption		Maximum Hourly Consumption		Allocation Factor
	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	
	(2)	(3)=(2)X 0.0000	(4)	(5)=(4)X 1.0000	
Residential	0.7836	0.0000	0.6864	0.6864	0.6864
Commercial	0.1115	0.0000	0.0906	0.0906	0.0906
Industrial	0.0005	0.0000	0.0004	0.0004	0.0004
Other Public Authority	0.0160	0.0000	0.0130	0.0130	0.0130
Sales for Resale	0.0000	0.0000	0.0000	0.0000	0.0000
Private Fire Protection	0.0135	0.0000	0.0321	0.0321	0.0321
Public Fire Protection	0.0749	0.0000	0.1775	0.1775	0.1775
Total	<u>1.0000</u>	<u>0.0000</u>	<u>1.0000</u>	<u>1.0000</u>	<u>1.0000</u>

The weighting of the factors is based on the total footage of mains, designated as either transmission mains or distribution mains, as follows:

	Total Footage of Mains	Weight
Transmission Mains	410,796	0.0000
Distribution Mains	<u>2,015,020</u>	<u>1.0000</u>
Total	<u>2,425,816</u>	1.0000

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 8.

ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.

Costs are assigned directly to Public Fire Protection.

Customer Classification <u> </u> (1)	Allocation Factor <u> </u> (3)
Public Fire Protection	<u>1.0000</u>
Total	<u><u>1.0000</u></u>

FACTOR 9.

ALLOCATION OF COSTS ASSOCIATED WITH METERS.

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

Customer Classification <u> </u> (1)	5/8" Dollar Equivalents <u> </u> (2)	Allocation Factor <u> </u> (3)
Residential	27,429	0.8833
Commercial	2,687	0.0865
Industrial	7	0.0002
Other Public Authority	932	0.0300
Sales for Resale	0	0.0000
Private Fire	<u>0</u>	<u>0.0000</u>
Total	<u><u>31,054</u></u>	<u><u>1.0000</u></u>

MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 10.

ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

<u>Customer Classification</u> (1)	<u>3/4" Dollar Equivalents</u> (2)	<u>Allocation Factor</u> (3)
Residential	27,014	0.9273
Commercial	1,298	0.0445
Industrial	3	0.0001
Other Public Authority	148	0.0051
Sales for Resale	0	0.0000
Private Fire Protection	669	0.0230
Total	29,132	<u>1.0000</u>

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 11.

**ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION
SUPERVISION AND ENGINEERING AND MISCELLANEOUS EXPENSES.**

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Operating Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 210,420	0.7218
Commercial	24,356	0.0836
Industrial	103	0.0004
Other Public Authority	3,440	0.0118
Sales for Resale	-	0.0000
Private Fire Protection	8,993	0.0309
Public Fire Protection	44,156	0.1515
Total	<u>291,468</u>	<u>1.0000</u>

FACTOR 12.

**ALLOCATION OF TRANS. DISTRIB. MAINTENANCE SUPERVISION
AND ENGINEERING, STRUCTURES AND IMPROVE., AND OTHER EXPENSES.**

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

Customer Classification	Transmission & Distribution Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$ 51,326	0.6944
Commercial	4,845	0.0655
Industrial	18	0.0002
Other Public Authority	769	0.0104
Sales for Resale	-	0.0000
Private Fire Protection	1,701	0.0230
Public Fire Protection	15,263	0.2065
Total	<u>\$73,922</u>	<u>1.0000</u>

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 13.

ALLOCATION OF BILLING AND COLLECTING COSTS.

Factors are based on the total number of customers.

Customer Classification <u>(1)</u>	Total Customers <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	26,880	0.9584
Commercial	949	0.0338
Industrial	2	0.0001
Other Public Authority	63	0.0022
Sales for Resale	0	0.0000
Private Fire Protection	153	0.0055
Public Fire Protection	<u>0</u>	<u>0.0000</u>
Total	<u><u>28,047</u></u>	<u><u>1.0000</u></u>

FACTOR 14.

ALLOCATION OF METER READING COSTS.

Factors are based on the number of metered customers.

Customer Classification <u>(1)</u>	Total Metered Customers <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	26,880	0.9636
Commercial	949	0.0340
Industrial	2	0.0001
Other Public Authority	63	0.0023
Sales for Resale	<u>0</u>	<u>0.0000</u>
Total	<u><u>27,894</u></u>	1.0000

**MISSOURI-AMERICAN WATER COMPANY
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 15.

**ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES AND CASH
WORKING CAPITAL.**

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

<u>Customer Classification</u> (1)	<u>Operation & Maintenance Expenses</u> (2)	<u>Allocation Factor</u> (3)
Residential	\$928,389	0.8419
Commercial	63,440	0.0575
Industrial	242	0.0002
Other Public Authority	7,766	0.0070
Sales for Resale	0	0.0000
Private Fire Protection	16,711	0.0152
Public Fire Protection	86,238	0.0782
Total	<u>\$1,102,785</u>	<u>1.0000</u>

**MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
PSC STAFF STUDY**

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 16.

ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.

Factors are based on the allocation of direct labor expense.

Customer Classification	Direct Labor Expense	Allocation Factor
(1)	(2)	(3)
Residential	\$518,869	0.8522
Commercial	34,221	0.0562
Industrial	127	0.0002
Other Public Authority	4,181	0.0069
Sales for Resale	0	0.0000
Private Fire Protection	8,443	0.0139
Public Fire Protection	43,005	0.0706
Total	<u>\$608,847</u>	<u>1.0000</u>

FACTOR 17.

**ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS,
MISC. INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.**

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

Customer Classification	Original Cost Less Depreciation	Allocation Factor
(1)	(2)	(3)
Residential	\$34,957,152	0.7196
Commercial	4,385,738	0.0903
Industrial	18,886	0.0004
Other Public Authority	676,642	0.0139
Sales for Resale	0	0.0000
Private Fire Protection	955,438	0.0197
Public Fire Protection	7,583,948	0.1561
Total	<u>\$48,577,805</u>	<u>1.0000</u>

**MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT**

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 18.

ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

Customer Classification <u>(1)</u>	Original Cost Measure of Value <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	\$22,688,055	0.7188
Commercial	2,854,749	0.0905
Industrial	12,114	0.0004
Other Public Authority	441,298	0.0140
Sales for Resale	0	0.0000
Private Fire Protection	621,005	0.0197
Public Fire Protection	<u>4,941,313</u>	<u>0.1566</u>
Total	<u><u>\$31,558,534</u></u>	<u><u>1.0000</u></u>

FACTOR 19.

**ALLOCATION OF REG. COMMISSION EXPENSES, ASSESSMENTS AND
OTHER WATER REVENUES.**

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

Customer Classification <u>(1)</u>	Total Cost of Service <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	\$5,349,366	0.7704
Commercial	579,565	0.0835
Industrial	2,562	0.0004
Other Public Authority	85,212	0.0123
Sales for Resale	0	0.0000
Private Fire Protection	113,944	0.0164
Public Fire Protection	<u>812,254</u>	<u>0.1170</u>
Total	<u><u>\$6,942,904</u></u>	<u><u>1.0000</u></u>

MISSOURI-AMERICAN WATER COMPANY
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PSC STAFF STUDY

BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

Meter Size	5/8" Dollar Equivalent	Residential		Commercial		Industrial		Other Public Authority		Sales for Resale		Total	
		Number of Meters	Weighting (4)=(2)X(3)	Number of Meters	Weighting (6)=(2)X(5)	Number of Meters	Weighting (8)=(2)X(7)	Number of Meters	Weighting (10)=(2)X(9)	Number of Meters	Weighting (12)=(2)X(11)	Number of Meters	Weighting (14)
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(9)	(10)=(2)X(9)	(11)	(12)=(2)X(11)	(13)	(14)
5/8	1.0	26,152.42	26,152.42	385.50	385.50	0.00	0.00	4.75	4.75	0.00	0.00	26,542.67	26,542.67
3/4	1.3	1.00	1.30	0.33	0.43	0.00	0.00	0.00	0.00	0.00	0.00	1.33	1.73
1	1.7	706.50	1,201.05	204.33	347.37	0.00	0.00	3.25	5.53	0.00	0.00	914.08	1,553.94
1-1/2	3.5	15.67	54.83	179.67	628.83	0.00	0.00	5.00	17.50	0.00	0.00	200.33	701.17
2	4.3	4.42	18.99	159.58	686.21	1.58	6.81	20.58	88.51	0.00	0.00	186.17	800.52
3	19.0	0.00	0.00	7.42	140.92	0.00	0.00	14.00	266.00	0.00	0.00	21.42	406.92
4	29.3	0.00	0.00	8.42	246.61	0.00	0.00	10.08	295.44	0.00	0.00	18.50	542.05
6	48.4	0.00	0.00	2.67	129.07	0.00	0.00	5.25	254.10	0.00	0.00	7.92	383.17
8	112.9	0.00	0.00	1.08	122.31	0.00	0.00	0.00	0.00	0.00	0.00	1.08	122.31
Total		<u>26,880.00</u>	<u>27,428.59</u>	<u>949.00</u>	<u>2,687.24</u>	<u>1.58</u>	<u>6.81</u>	<u>62.92</u>	<u>931.83</u>	<u>0.00</u>	<u>0.00</u>	<u>27,893.50</u>	<u>31,054.47</u>

MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT

PSC STAFF STUDY

BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

Service Size (1)	3/4" Dollar Equivalent (2)	Residential		Commercial		Industrial		Other Public Authority		Sales for Resale		Private Fire Protection		Total	
		Number of Services (3)	Weighting (4)=(2)X(3)	Number of Services (5)	Weighting (6)=(2)X(5)	Number of Services (7)	Weighting (8)=(2)X(7)	Number of Services (9)	Weighting (10)=(2)X(9)	Number of Services (11)	Weighting (12)=(2)X(11)	Number of Services (13)	Weighting (14)=(2)X(13)	Number of Services (15)	Weighting (16)
3/4	1.00	26,153.42	26,153.42	385.83	385.83	0.00	0.00	4.75	4.75	0.00	0.00	0.00	0.00	26,544.00	26,544.00
1	1.17	706.50	826.61	204.33	239.07	0.00	0.00	3.25	3.80	0.00	0.00	0.00	0.00	914.08	1,069.48
1-1/2	1.58	15.67	24.75	179.67	283.87	0.00	0.00	5.00	7.90	0.00	0.00	0.00	0.00	200.33	316.53
2	2.04	4.42	9.01	159.58	325.55	1.58	3.23	20.58	41.99	0.00	0.00	13.00	26.52	199.17	406.30
3	2.73	0.00	0.00	7.42	20.25	0.00	0.00	14.00	38.22	0.00	0.00	1.00	2.73	22.42	61.20
4	2.88	0.00	0.00	8.42	24.24	0.00	0.00	10.08	29.04	0.00	0.00	16.00	46.08	34.50	99.36
6	4.24	0.00	0.00	2.67	11.31	0.00	0.00	5.25	22.26	0.00	0.00	57.00	241.68	64.92	275.25
8	6.98	0.00	0.00	1.08	7.56	0.00	0.00	0.00	0.00	0.00	0.00	45.00	314.10	46.08	321.66
10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	38.00	4.00	38.00
12	12.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		<u>26,880.00</u>	<u>27,013.79</u>	<u>949.00</u>	<u>1,297.68</u>	<u>1.58</u>	<u>3.23</u>	<u>62.92</u>	<u>147.96</u>	<u>0.00</u>	<u>0.00</u>	<u>136.00</u>	<u>669.11</u>	<u>28,029.50</u>	<u>29,131.77</u>

**MISSOURI-AMERICAN WATER COMPANY
ST. CHARLES DISTRICT
PSC STAFF STUDY**

BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE
TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS

Description (1)	Restrictive Diameters Squared (2)	Quantity (3)	Relative Demand* (4)=(2)x(3)	Allocation Factor (5)
<u>PRIVATE FIRE PROTECTION</u>				
Fire Lines				
2 -inch	4.00	13	52	
3 -inch	9.00	0	0	
4 -inch	16.00	16	256	
6 -inch	36.00	57	2,052	
8 -inch	64.00	45	2,880	
10 -inch	100.00	4	400	
12 -inch	144.00	0	0	
Private Hydrants	32.75	18	590	
Total Private Fire Protection		153	6,230	0.1529
<u>PUBLIC FIRE PROTECTION</u>				
Hydrant	Nozzle Sizes			
6" Valve	2- 2-1/2" & 1- 4.5"	32.75	0	0
6" Valve	2- 2-1/2"	12.50	2,762	34,525
Total Public Fire Protection		2,762	34,525	0.8471
Total Fire Protection		2,915	40,755	1.0000