

MISSOURI-AMERICAN WATER COMPANY
WARRENSBURG 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	\$ 1,183,820	55.1%	\$ 1,252,537	50.7%	\$ 1,183,820	55.1%	\$ (68,717)	-5.5%
Commercial	337,793	15.7%	469,810	19.0%	337,793	15.7%	(132,017)	-28.1%
Industrial	57,765	2.7%	77,275	3.1%	57,765	2.7%	(19,510)	-25.2%
Public Authority	373,221	17.4%	408,331	16.5%	373,221	17.4%	(35,110)	-8.6%
Sales for Resale	162,029	7.5%	209,255	8.5%	162,029	7.5%	(47,226)	-22.6%
Private Fire Service	32,191	1.5%	53,457	2.2%	32,191	1.5%	(21,266)	-39.8%
Public Fire Service	-	0.0%	-	0.0%	-	0.0%	-	-
Total Sales	2,146,818	<u>99.9%</u>	2,470,665	<u>100.0%</u>	2,146,819	<u>99.9%</u>	(323,846)	-13.1%
Other Revenues	<u>54,043</u>		<u>54,043</u>		<u>54,043</u>		-	0.0%
Total	<u>\$ 2,200,861</u>		<u>\$ 2,524,708</u>		<u>\$ 2,200,862</u>		<u>\$ (323,846)</u>	-12.8%
True-Up Estimate	\$58,788				\$58,788		\$58,788	
Total w/ True-up	<u>2,259,649</u>				<u>\$ 2,259,650</u>		<u>\$ (265,058)</u>	-10.5%

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: Warrensburg

Case No. WR-2003-0500
STAFF - WARRENSBURG
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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	367,222	\$1,252,537	367,222	\$1,183,820	(\$68,717)	-5.49%
5	Commercial	175,729	469,810	175,729	337,793	(132,017)	-28.10%
6	Industrial	43,860	77,275	43,860	57,765	(19,510)	-25.25%
7	Other Public Authority	229,879	408,331	229,879	373,221	(35,110)	-8.60%
8	Other Water Utilities	111,348	209,255	111,348	162,029	(47,226)	-22.57%
9	Miscellaneous	0	0	0	0	0	0.00%
10	Private Fire	0	53,457	0	32,191	(21,266)	-39.78%
11							
12	Total	<u>928,038</u>	<u>2,470,665</u>	<u>928,038</u>	<u>2,146,819</u>	<u>(\$323,846)</u>	<u>-13.11%</u>
13							
14							
15	Miscellaneous Revenues:						
16							
17	Reconnect Charges		4,248		4,248	0	0.00%
18	Returned Check Charge		1,043		1,043	0	0.00%
19	Application Fee		47,380		47,380	0	0.00%
20	Miscellaneous Other Revenue		1,372		(60)	(1,432)	-104.36%
21	Rents from Water Property		0		0	0	0.00%
22							
23							
24			<u>\$2,524,708</u>		<u>\$2,199,430</u>	<u>(325,278)</u>	<u>-12.88%</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: Warrensburg

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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	66,212		\$7.08	\$468,781	66,212		\$ 7.93	\$525,046	\$56,265	12.00%
5	3/4" Monthly	12		9.06	109	12		\$ 8.33	100	(9)	-8.26%
6	1" Monthly	148		12.84	1,900	148		\$ 9.35	1,384	(516)	-27.16%
7	1-1/2" Monthly	0		22.33	0	0		\$ 12.93	0	0	0.00%
8	2" Monthly	0		33.71	0	0		\$ 15.32	0	0	0.00%
9	3" Monthly	0		60.24	0	0		\$ 36.92	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 51.10	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 80.50	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 174.47	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		366,757	\$2.1300	781,192		366,757	\$1.7899	656,458	(124,734)	-15.97%
19	Second Block		465	1.1932	555		465	1.7899	832	277	49.91%
20	Third Block		0	0.9208	0		0	1.7899	0	0	0.00%
21	Fourth Block		0	0.6201	0		0	1.7899	0	0	0.00%
22											
23											
24	Total		<u>367,222</u>		<u>\$1,252,537</u>		<u>367,222</u>		<u>\$1,183,820</u>	<u>(\$68,717)</u>	<u>-5.49%</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: Warrensburg

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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	4,904		\$7.08	\$34,720	4,904		\$ 7.93	\$38,888	\$4,168	12.00%
5	3/4" Monthly	60		9.06	544	60		\$ 8.33	500	(44)	-8.09%
6	1" Monthly	931		12.84	11,954	931		\$ 9.35	8,706	(3,248)	-27.17%
7	1-1/2" Monthly	313		22.33	6,989	313		\$ 12.93	4,047	(2,942)	-42.09%
8	2" Monthly	776		33.71	26,159	776		\$ 15.32	11,885	(14,274)	-54.57%
9	3" Monthly	23		60.24	1,386	23		\$ 36.92	849	(537)	-38.74%
10	4" Monthly	0		98.15	0	0		\$ 51.10	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 80.50	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 174.47	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		127,797	\$2.5093	320,681		127,797	\$1.5531	198,477	(122,204)	-38.11%
19	Second Block		47,930	1.4057	67,375		47,930	1.5531	74,438	7,063	10.48%
20	Third Block		2	1.0848	2		2	1.5531	3	1	50.00%
21	Fourth Block		0	0.7305	0		0	1.5531	0	0	0.00%
22											
23											
24	Total		<u>175,729</u>		<u>\$469,810</u>		<u>175,729</u>		<u>\$337,793</u>	<u>(\$132,017)</u>	<u>-28.10%</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: Warrensburg

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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		\$ 7.93	\$0	\$0	0.00%
5	3/4" Monthly	0		9.06	0	0		\$ 8.33	0	0	0.00%
6	1" Monthly	36		12.84	462	36		\$ 9.35	337	(125)	-27.06%
7	1-1/2" Monthly	12		22.33	268	12		\$ 12.93	155	(113)	-42.16%
8	2" Monthly	75		33.71	2,528	75		\$ 15.32	1,149	(1,379)	-54.55%
9	3" Monthly	12		60.24	723	12		\$ 36.92	443	(280)	-38.73%
10	4" Monthly	24		98.15	2,356	24		\$ 51.10	1,226	(1,130)	-47.96%
11	6" Monthly	0		192.93	0	0		\$ 80.50	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 174.47	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		8,140	\$2.5200	20,512		8,140	\$1.2416	10,106	(10,406)	-50.73%
19	Second Block		35,720	1.4117	50,426		35,720	1.2416	44,349	(6,077)	-12.05%
20	Third Block		0	1.0895	0		0	1.2416	0	0	0.00%
21	Fourth Block		0	0.7336	0		0	1.2416	0	0	0.00%
22											
23											
24	Total		<u>43,860</u>		<u>\$77,275</u>		<u>43,860</u>		<u>\$57,765</u>	<u>(\$19,510)</u>	<u>-25.25%</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: Warrensburg

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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	869		\$7.08	\$6,149	869		\$ 7.93	\$6,887	\$738	12.00%
5	3/4" Monthly	15		9.06	136	15		\$ 8.33	125	(11)	-8.09%
6	1" Monthly	44		12.84	565	44		\$ 9.35	411	(154)	-27.26%
7	1-1/2" Monthly	60		22.33	1,340	60		\$ 12.93	776	(564)	-42.09%
8	2" Monthly	418		33.71	14,091	418		\$ 15.32	6,402	(7,689)	-54.57%
9	3" Monthly	82		60.24	4,940	82		\$ 36.92	3,027	(1,913)	-38.72%
10	4" Monthly	146		98.15	14,330	146		\$ 51.10	7,461	(6,869)	-47.93%
11	6" Monthly	0		192.93	0	0		\$ 80.50	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 174.47	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		43,233	\$2.8432	122,920		43,233	\$1.5144	65,473	(57,447)	-46.74%
19	Second Block		114,541	1.5928	182,441		114,541	1.5144	173,462	(8,979)	-4.92%
20	Third Block		4,327	1.2292	5,319		4,327	1.5144	6,553	1,234	23.20%
21	Fourth Block		67,778	0.8277	56,100		67,778	1.5144	102,644	46,544	82.97%
22											
23											
24	Total		<u>229,879</u>		<u>\$408,331</u>		<u>229,879</u>		<u>\$373,221</u>	<u>(\$35,110)</u>	<u>-8.60%</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: Warrensburg

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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		\$ 7.93	\$0	\$0	0.00%
5	3/4" Monthly	0		9.06	0	0		\$ 8.33	0	0	0.00%
6	1" Monthly	0		12.84	0	0		\$ 9.35	0	0	0.00%
7	1-1/2" Monthly	0		22.33	0	0		\$ 12.93	0	0	0.00%
8	2" Monthly	24		33.71	809	24		\$ 15.32	368	(441)	-54.51%
9	3" Monthly	0		60.24	0	0		\$ 36.92	0	0	0.00%
10	4" Monthly	12		98.15	1,178	12		\$ 51.10	613	(565)	-47.96%
11	6" Monthly	0		192.93	0	0		\$ 80.50	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 174.47	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		1,227	\$4.6680	5,725		1,227	\$1.4464	1,774	(3,951)	-69.01%
19	Second Block		22,797	2.6151	59,616		22,797	1.4464	32,972	(26,644)	-44.69%
20	Third Block		36,000	2.0048	72,173		36,000	1.4464	52,069	(20,104)	-27.86%
21	Fourth Block		51,324	1.3591	69,754		51,324	1.4464	74,233	4,479	6.42%
22											
23											
24	Total		<u>111,348</u>		<u>\$209,255</u>		<u>111,348</u>		<u>\$162,029</u>	<u>(\$47,226)</u>	<u>-22.57%</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
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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		\$ 7.93	\$0	\$0	0.00%
5	3/4" Monthly	0		9.06	0	0		\$ 8.33	0	0	0.00%
6	1" Monthly	0		12.84	0	0		\$ 9.35	0	0	0.00%
7	1-1/2" Monthly	0		22.33	0	0		\$ 12.93	0	0	0.00%
8	2" Monthly	0		33.71	0	0		\$ 15.32	0	0	0.00%
9	3" Monthly	0		60.24	0	0		\$ 36.92	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 51.10	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 80.50	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 174.47	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>
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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: Warrensburg

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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	6	\$968.28	\$5,810	583.08	\$3,498	(\$2,312)	-39.79%
5								
6	2"	2	138.84	278	83.61	167	(111)	-39.93%
7								
8	3"	0	238.44	0	143.58	0	0	0.00%
9								
10	4"	15	378.36	5,675	227.84	3,418	(2,257)	-39.77%
11								
12	6"	27	775.92	20,950	467.24	12,616	(8,334)	-39.78%
13								
14	8"	14	1,335.12	18,692	803.98	11,256	(7,436)	-39.78%
15								
16	10"	1	2,052.12	2,052	1,235.74	1,236	(816)	-39.77%
17								
18	12"	0	2,925.96	0	1,761.95	0	0	0.00%
19								
20								
21								
22	Total	<u>65</u>		<u>\$53,457</u>		<u>\$32,191</u>	<u>(\$21,266)</u>	<u>-39.78%</u>
23								
24								
25								
26	Public Fire Protection:							
27								
28	Public Fire Hydrants	<u>634</u>	0.00	<u>0</u>	0.00	<u>0</u>	<u>0</u>	<u>0.00%</u>
29								

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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	4,713	1,977	849	188	1,110	575	2	13	0.0
Labor & Exp Oper SS	2	2,427	1,018	437	97	572	296	1	7	0.0
Purchased Water	1	0	0	0	0	0	0	0	0	0.0
TOTAL SS EXPENSE - OPERATION		7,140	2,995	1,286	284	1,681	871	3	20	0.0
Misc Exp Oper SS	2	52,526	22,029	9,460	2,091	12,370	6,408	21	147	0.0
Misc Exp Oper SS	2	370	155	67	15	87	45	0	1	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	36	15	6	1	8	4	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	33	14	6	1	8	4	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	91	38	16	4	21	11	0	0	0.0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0	0	0.0
Infiltr 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	3,942	1,653	710	157	928	481	2	11	0.0
TOTAL SS EXPENSE - MAINTENANCE		56,998	23,905	10,265	2,269	13,423	6,954	23	160	0.0
TOTAL SS EXPENSE		64,138	26,899	11,551	2,553	15,104	7,825	26	180	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	960	402	172	38	225	117	1	5	0.0
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0	0	0.0
Purch Fuel/Power for Pump	1	18,345	7,222	3,456	862	4,520	2,190	11	83	0.0
Labor & Exp Oper Pump	6	525	220	94	21	123	64	0	3	0.0
Labor & Exp Oper Pump	6	26	11	5	1	6	3	0	0	0.0
Expenses Transferred	6	0	0	0	0	0	0	0	0	0.0
Misc Exp Oper P	6	46	19	8	2	11	6	0	0	0.0
Rents Oper P	6	51	21	9	2	12	6	0	0	0.0
TOTAL PUMPING EXPENSE - OPERATION		19,953	7,895	3,745	926	4,898	2,386	12	91	0.0

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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)	
Super & Eng Maint P	6	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint P	6	48	20	9	2	11	6	0	0	0.0
Power Prod Equip Maint P	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Maint P	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Maint P	6	0	0	0	0	0	0	0	0	0.0
TOTAL PUMPING EXPENSES - MAINTENANCE		48	20	9	2	11	6	0	0	0.0
TOTAL PUMPING EXPENSES		20,001	7,915	3,753	928	4,909	2,392	12	91	0.0
WATER TREATMENT										0.0
Super & Eng Oper WT	2	0	0	0	0	0	0	0	0	0.0
Chemicals	1	24,527	9,656	4,621	1,153	6,043	2,929	15	110	0.0
Labor & Exp Oper WT	2	24,109	10,111	4,342	960	5,678	2,941	10	68	0.0
Labor & Exp Oper WT	2	8,886	3,727	1,600	354	2,093	1,084	4	25	0.0
Misc Exp Oper WT	2	0	0	0	0	0	0	0	0	0.0
Misc Exp Oper WT	1	29,552	11,635	5,568	1,389	7,282	3,529	18	133	0.0
Misc Exp Oper WT	2	3,284	1,377	591	131	773	401	1	9	0.0
Rents Oper WT	2	0	0	0	0	0	0	0	0	0.0
TOTAL WT EXPENSE - OPERATION		90,358	36,506	16,722	3,986	21,869	10,883	47	345	0.0
Super & Eng Maint WT	2	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint WT	2	3,935	1,650	709	157	927	480	2	11	0.0
Struct & Improve Maint WT	2	0	0	0	0	0	0	0	0	0.0
WT Equip Maint WT	2	6,154	2,581	1,108	245	1,449	751	2	17	0.0
WT Equip Maint WT	2	3,256	1,366	586	130	767	397	1	9	0.0
TOTAL WT EXPENSE - MAINTENANCE		13,345	5,597	2,403	531	3,143	1,628	5	37	0.0
TOTAL WT EXPENSE		103,703	42,103	19,126	4,517	25,012	12,511	52	382	0.0
TRANSMISSION AND DISTRIBUTION EXPENSES										0.0
Super & Eng Oper TD	11	0	0	0	0	0	0	0	0	0.0
Storage Facility Exp	5	66	20	8	1	10	6	2	19	0.0
Storage Facility Exp	5	435	132	51	9	66	38	16	123	0.0
TD Lines Exp	7	46,620	15,245	5,851	984	7,646	4,354	1,478	11,063	0.0
TD Lines Exp	7	24,186	7,909	3,035	510	3,967	2,259	767	5,739	0.0
Meter Expense	9	11,259	8,454	1,455	172	1,120	57	0	0	0.0
Meter Expense	9	298	224	39	5	30	2	0	0	0.0
Customer Install Exp	10	12,601	10,358	1,278	49	394	13	509	0	0.0
Customer Install Exp	10	0	0	0	0	0	0	0	0	0.0
Misc Exp Oper TD	11	1,617	717	198	29	224	114	47	287	0.0

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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)	
Misc Exp Oper TD	11	39,977	17,734	4,905	724	5,541	2,818	1,159	7,096	0.0
Misc Exp Oper TD	11	6,556	2,908	804	119	909	462	190	1,164	0.0
Rents Oper TD	11	0	0	0	0	0	0	0	0	0.0
TOTAL T & D EXPENSE OPERATION		143,615	63,701	17,623	2,601	19,906	10,123	4,169	25,491	0.0
Super & Eng Maint TD	12	1	0	0	0	0	0	0	0	0.0
Struct & Improve Maint TD	12	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint TD	12	0	0	0	0	0	0	0	0	0.0
Dist Res Stand Maint TD	5	67	20	8	1	10	6	3	19	0.0
TD Main Maint TD	7	2,919	955	366	62	479	273	93	693	0.0
TD Main Maint TD	7	0	0	0	0	0	0	0	0	0.0
Fire Main Maint TD	8	0	0	0	0	0	0	0	0	0.0
Services Maint TD	10	2,862	2,353	290	11	90	3	116	0	0.0
Services Maint TD	10	0	0	0	0	0	0	0	0	0.0
Meters Maint TD	9	33	25	4	1	3	0	0	0	0.0
Meters Maint TD	9	0	0	0	0	0	0	0	0	0.0
Hydrants Maint TD	8	1,438	0	0	0	0	0	0	1,438	0.0
Hydrants Maint TD	8	0	0	0	0	0	0	0	0	0.0
Misc Plant Maint TD	12	100,611	46,080	9,196	1,026	7,999	3,874	2,898	29,539	0.0
Mat and Sup Maint TD	12	0	0	0	0	0	0	0	0	0.0
Misc Maint TD	12	0	0	0	0	0	0	0	0	0.0
Amort Def Maint TD	5	0	0	0	0	0	0	0	0	0.0
TOTAL T & D EXPENSE - MAINTENANCE		107,931	49,433	9,865	1,101	8,580	4,155	3,108	31,689	0.0
TOTAL T & D EXPENSE		251,546	113,134	27,488	3,702	28,487	14,278	7,277	57,180	0.0
CUSTOMER ACCOUNTS										0.0
Supervision CA	13	488	426	45	1	10	0	5	0	0.0
Meter Reading Exp CA	14	34,510	30,455	3,216	72	749	17	0	0	0.0
Meter Reading Exp CA	14	0	0	0	0	0	0	0	0	0.0
Meter Reading Exp CA	14	2,561	2,260	239	5	56	1	0	0	0.0
Cust Rec & Collection CA	13	2,488	2,173	229	5	53	1	26	0	0.0
Cust Rec & Collection CA	13	26,342	23,007	2,429	55	566	13	271	0	0.0
Uncollectible Accts	13	25,351	22,142	2,337	53	545	13	261	0	0.0
Misc Cust Accts Exp CA	13	3,901	3,407	360	8	84	2	40	0	0.0
Misc Cust Accts Exp CA	13	1,467	1,281	135	3	32	1	15	0	0.0
Misc Cust Accts Exp CA	13	6,718	5,868	619	14	144	3	69	0	0.0
Cust Serv & Info Exp CA	13	46,544	40,652	4,291	98	1,001	23	479	0	0.0
TOTAL CUSTOMER ACCOUNTING EXPENSE		150,370	131,671	13,901	316	3,240	75	1,167	0	0.0

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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)
ADMINISTRATIVE AND GENERAL EXPENSES										
Salaries AG	15	55,027	31,184	6,614	913	6,268	3,026	902	6,119	0.0
Other Supplies & Exp AG	15	2,430	1,377	292	40	277	134	40	270	0.0
Other Supplies & Exp AG	15	27,398	15,526	3,293	455	3,121	1,507	449	3,047	0.0
Other Supplies & Exp AG	15	5,223	2,960	628	87	595	287	86	581	0.0
Mgmt Fees-Corporate/Shared Service Center	15	55,906	31,682	6,720	928	6,368	3,075	917	6,217	0.0
Mgmt Fees-Call Center	13	30,137	26,322	2,779	63	648	15	310	0	0.0
Mgmt Fees-Belleville Lab	2	31,416	13,176	5,658	1,250	7,398	3,833	13	88	0.0
Mgmt Fees- Financial ITS	15	2,933	1,662	353	49	334	161	48	326	0.0
Mgmt Fees- Customer Billings ITS	13	16,560	14,464	1,527	35	356	8	171	0	0.0
Mgmt Fees-Other ITS	15	186	105	22	3	21	10	3	21	0.0
Outside Services AG	15	14,467	8,198	1,739	240	1,648	796	237	1,609	0.0
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	8,191	4,642	985	136	933	451	134	911	0.0
Ins Work Comp AG	16	5,703	3,038	655	89	624	301	110	886	0.0
Ins Other Oper AG	15	10,713	6,071	1,288	178	1,220	589	176	1,191	0.0
Property Insurance	15	0	0	0	0	0	0	0	0	0.0
Injuries & Damages	16	162	86	19	3	18	9	3	25	0.0
Employee Pension & Benefits	16	81,629	43,484	9,379	1,273	8,930	4,302	1,575	12,685	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	1,979	1,121	238	33	225	109	32	220	0.0
Rents AG	15	8,454	4,791	1,016	140	963	465	139	940	0.0
Goodwill Advertising Exp	15	0	0	0	0	0	0	0	0	0.0
Misc Exp AG	15	(4,882)	(2,767)	(587)	(81)	(556)	(269)	(80)	(543)	0.0
Research & Development	15	0	0	0	0	0	0	0	0	0.0
TOTAL A & G OPERATIONS		353,632	207,123	42,617	5,835	39,390	18,808	5,266	34,593	0.0
General Plant Maint AG	15	136	77	16	2	15	7	2	15	0.0
General Plant Maint AG	15	3,442	1,951	414	57	392	189	56	383	0.0
TOTAL A & G EXPENSE - MAINTENANCE		3,578	2,028	430	59	408	197	59	398	0.0
TOTAL A & G EXPENSE		357,210	209,151	43,047	5,894	39,798	19,005	5,324	34,991	0.0
Total Operation & Maintenance Expenses		946,968	530,873	118,867	17,909	116,550	56,086	13,859	92,824	0.0

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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 SS	2	528	221	95	21	124	64	0	1	0.0
Struct & Imp P	6	732	306	131	29	172	89	1	4	0.0
Struct & Imp WT	2	8,732	3,662	1,573	348	2,056	1,065	3	24	0.0
Struct & Imp TD	7	1,518	496	191	32	249	142	48	360	0.0
Struct & Imp Offices	15	3,342	1,894	402	55	381	184	55	372	0.0
Struct & Imp Store,Shop,Gar	15	0	0	0	0	0	0	0	0	0.0
Struct & Imp Misc	15	0	0	0	0	0	0	0	0	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	16,051	6,732	2,891	639	3,780	1,958	6	45	0.0
Supply Mains	2	3,197	1,341	576	127	753	390	1	9	0.0
Power Generation Equip Othe	6	144	60	26	6	34	18	0	1	0.0
Pump Equip Electric	6	5,206	2,178	934	206	1,222	633	4	28	0.0
Pump Equip Diesel	6	0	0	0	0	0	0	0	0	0.0
Pump Equip Other	6	342	143	81	14	80	42	0	2	0.0
WT Equip Non-Media	2	63,509	26,636	11,438	2,528	14,956	7,748	25	178	0.0
Dist Reservoirs & Standpipe	5	9,804	2,977	1,142	193	1,494	849	371	2,777	0.0
Elevated Tanks & Standpipes	5	1,069	325	125	21	163	93	40	303	0.0
Ground Level Facilities	5	0	0	0	0	0	0	0	0	0.0
TD Mains Not Classified by	7	40,679	13,302	5,105	858	6,671	3,799	1,290	9,653	0.0
TD Mains 4 & Less "	4	779	255	98	16	128	73	25	185	0.0
TD Mains 6 to 8" "	4	15,044	4,919	1,888	317	2,467	1,405	477	3,570	0.0
TD Mains 10 to 16" "	3	10,317	4,100	1,760	388	2,302	1,193	68	507	0.0
TD Mains 18 & Grtr "	3	0	0	0	0	0	0	0	0	0.0
Fire Mains	8	1,203	0	0	0	0	0	0	1,203	0.0
Services	10	30,910	25,408	3,134	121	967	31	1,249	0	0.0
Meters Bronze Case	9	6,805	5,110	879	104	677	35	0	0	0.0
Meters Plastic Case	9	0	0	0	0	0	0	0	0	0.0
Meters Other	9	4,994	3,750	645	76	497	25	0	0	0.0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0	0	0.0
Meter Installations	9	14,827	11,134	1,916	227	1,475	76	0	0	0.0
Meter Installation Other	9	0	0	0	0	0	0	0	0	0.0
Hydrants	8	9,250	0	0	0	0	0	0	9,250	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	0	0	0	0	0	0	0	0	0.0
Other P/E CPS	15	0	0	0	0	0	0	0	0	0.0
Office Furniture & Equip	15	76	43	9	1	9	4	1	8	0.0
Comp & Periph Equip	15	1,224	694	147	20	139	67	20	136	0.0
Computer Software	15	0	0	0	0	0	0	0	0	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	9,737	5,518	1,170	162	1,109	536	160	1,083	0.0
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0	0.0
Trans Equip Autos	15	406	230	49	7	46	22	7	45	0.0
Trans Equip Other	15	0	0	0	0	0	0	0	0	0.0
Stores Equipment	15	0	0	0	0	0	0	0	0	0.0
Tools,Shop,Garage Equip	15	588	322	68	9	65	31	9	63	0.0
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0	0.0
Laboratory Equipment	2	1,796	753	323	71	423	219	1	5	0.0
Laboratory Equip Other	2	0	0	0	0	0	0	0	0	0.0

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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)	
Power Operated Equipment	15	2,521	1,429	303	42	287	139	41	280	0.0
Comm Equip Non-Telephone	15	593	336	71	10	68	33	10	66	0.0
Comm Equip Telephone	15	97	55	12	2	11	5	2	11	0.0
Misc Equipment	15	1,272	721	153	21	145	70	21	141	0.0
Other Tangible Property	15	320	181	38	5	36	18	5	36	0.0
Total Depreciation Expense		<u>267,592</u>	<u>125,232</u>	<u>37,354</u>	<u>6,677</u>	<u>42,987</u>	<u>21,055</u>	<u>3,940</u>	<u>30,347</u>	
Amort-Other UP, DepCiac, Cost of Removal	18	(17,591)	(7,592)	(2,507)	(470)	(3,019)	(1,530)	(255)	(2,218)	
Taxes Other Than Income										
Utility Reg Assessment Fee	19	14,998	7,394	2,017	345	2,230	1,104	219	1,689	
Property Taxes	18	184,106	79,460	26,235	4,916	31,593	16,017	2,670	23,216	
FUTA	16	314	167	36	5	34	17	6	49	0.0
FICA	16	16,242	8,652	1,866	253	1,777	856	313	2,524	0.0
SUTA	16	0	0	0	0	0	0	0	0	0.0
Other Taxes & Licenses	15	4,739	2,686	570	79	540	261	78	527	0.0
Gross Receipts Tax	19	0	0	0	0	0	0	0	0	0.0
Total Taxes, Other Than Income		<u>220,399</u>	<u>98,359</u>	<u>30,724</u>	<u>5,598</u>	<u>36,174</u>	<u>18,254</u>	<u>3,286</u>	<u>28,004</u>	0.0
Income Taxes	18	171,668	74,092	24,463	4,584	29,458	14,935	2,489	21,647	0.0
Utility Income Available for Return	18	<u>611,825</u>	<u>264,064</u>	<u>87,185</u>	<u>16,336</u>	<u>104,989</u>	<u>53,229</u>	<u>8,871</u>	<u>77,151</u>	0.0
Total Cost of Service		<u>2,200,861</u>	<u>1,085,027</u>	<u>296,086</u>	<u>50,633</u>	<u>327,140</u>	<u>162,029</u>	<u>32,191</u>	<u>247,756</u>	0.0
Less: Other Water Revenues	19	(54,043)	(54,043)							0.0
Revenue Contribution	19	0	0	0	0	0	0	0	0	0.0
Total Other Water Revenues		<u>(54,043)</u>	<u>(54,043)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	0.0
Total Cost of Service Related to Sales of Water		<u>\$ 2,146,818</u>	<u>\$ 1,030,984</u>	<u>\$ 296,086</u>	<u>\$ 50,633</u>	<u>\$ 327,140</u>	<u>\$ 162,029</u>	<u>\$ 32,191</u>	<u>\$ 247,756</u>	0.0

MISSOURI-AMERICAN WATER COMPANY
WARRENSBURG 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)
Reallocation of Public Fire	20		152,836	41,707	7,132	46,081	0	0	(247,756)
Total		<u>\$ 2,146,818</u>	<u>\$ 1,183,820</u>	<u>\$ 337,793</u>	<u>\$ 57,765</u>	<u>\$ 373,221</u>	<u>\$ 162,029</u>	<u>\$ 32,191</u>	<u>\$ -</u>
		\$ 54,043	\$ 54,043						
		<u>\$ 2,200,861</u>	<u>\$ 1,237,863</u>						

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MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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	\$ 1,506	\$ 650	\$ 215	\$ 40	\$ 258	\$ 131	\$ 22	\$ 190	0.0
Franchises	17	5,083	2,195	724	136	871	442	74	641	0.0
Land & Ld Rights SS	2	9,981	4,186	1,798	397	2,351	1,218	4	28	0.0
Land & Ld Rights P	6	0	0	0	0	0	0	0	0	0.0
Land & Ld Rights WT	2	511	214	92	20	120	62	0	1	0.0
Land & Ld Rights TD	7	37,348	12,213	4,687	788	6,125	3,488	1,184	8,863	0.0
Land & Land Rights AG	15	2,222	1,259	267	37	253	122	36	247	0.0
Struct & Imp SS	2	25,215	10,575	4,541	1,004	5,938	3,076	10	71	0.0
Struct & Imp P	6	55,695	23,303	9,997	2,206	13,072	6,773	45	301	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	712,249	298,717	128,276	28,348	167,735	86,894	285	1,994	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 WT TD	7	81,202	26,553	10,191	1,713	13,317	7,584	2,574	19,269	0.0
Struct & Imp TD Spec Cross	7	0	0	0	0	0	0	0	0	0.0
Struct & Imp Offices	15	90,726	51,414	10,905	1,506	10,334	4,990	1,488	10,089	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	0	0	0	0	0	0	0	0	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	730,474	306,361	131,558	29,073	172,027	89,118	292	2,045	0.0
Supply Mains	2	145,412	60,986	26,189	5,787	34,245	17,740	58	407	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	5,271	2,205	946	209	1,237	641	4	28	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	429,935	179,885	77,173	17,025	100,906	52,280	344	2,322	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	7,163	2,997	1,286	284	1,681	871	6	39	0.0
WT Equip Non-Media	2	2,992,315	1,254,977	538,916	119,094	704,690	365,062	1,197	8,378	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 Mer (STL	2	0	0	0	0	0	0	0	0	0.0
WT Equip Filter Media	2	(2,411)	(1,011)	(434)	(96)	(568)	(294)	(1)	(7)	0.0
Dist Reservoirs & Standpipe	5	366,304	111,247	42,674	7,216	55,825	31,722	13,846	103,774	0.0

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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)
Elevated Tanks & Standpipes	5	56,890	17,217	6,604	1,117	8,640	4,909	2,143	16,060	0.0
Ground Level Facilities	5	0	0	0	0	0	0	0	0	0.0
TD Mains Not Classified by	7	2,028,015	663,161	254,516	42,791	332,594	189,417	64,288	481,248	0.0
TD Mains 4 & Less "	4	59,472	19,447	7,464	1,255	9,753	5,555	1,885	14,113	0.0
TD Mains 6 to 8" "	4	1,148,053	375,413	144,081	24,224	188,281	107,228	36,393	272,433	0.0
TD Mains 10 to 16" "	3	787,924	313,121	134,420	29,626	175,786	91,084	5,200	38,687	0.0
TD Mains 18 & Grtr "	3	0	0	0	0	0	0	0	0	0.0
TD Mains AC 4 (STL) "	4	0	0	0	0	0	0	0	0	0.0
TD Mains CI <10 1900-28 (S"	4	0	0	0	0	0	0	0	0	0.0
TD Mains CI <10 1929-56 (S"	4	0	0	0	0	0	0	0	0	0.0
TD Mains CI <10 1957-93 (S"	4	0	0	0	0	0	0	0	0	0.0
TD Mains CI 12 (STL) "	3	0	0	0	0	0	0	0	0	0.0
TD Mains CI 16 (STL) "	3	0	0	0	0	0	0	0	0	0.0
TD Mains DI 6-8 (STL) "	4	0	0	0	0	0	0	0	0	0.0
TD Mains DI 12 (STL) "	3	0	0	0	0	0	0	0	0	0.0
TD Mains DI 16 & >(STL) "	3	0	0	0	0	0	0	0	0	0.0
TD Mains Galve 1 (STL) "	4	0	0	0	0	0	0	0	0	0.0
TD Mains LJ 20 (STL) "	3	0	0	0	0	0	0	0	0	0.0
Fire Mains	8	82,633	0	0	0	0	0	0	82,633	0.0
Services	10	1,187,164	975,849	120,378	4,630	37,158	1,187	47,961	0	0.0
Meters Bronze Case	9	271,731	204,043	35,108	4,157	27,037	1,386	0	0	0.0
Meters Plastic Case	9	0	0	0	0	0	0	0	0	0.0
Meters Other	9	(15,846)	(11,899)	-(2,047)	(242)	(1,577)	(81)	0	0	0.0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0	0	0.0
Meter Installations	9	538,114	404,070	69,524	8,233	53,542	2,744	0	0	0.0
Meter Installation Other	9	0	0	0	0	0	0	0	0	0.0
Hydrants	8	501,846	0	0	0	0	0	0	501,846	0.0
Other P/E Intangible	15	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	0	0	0	0	0	0	0	0	0.0
Other P/E CPS	15	(274)	(155)	(33)	(5)	(31)	(15)	(4)	(30)	0.0
Office Furniture & Equip	15	7,721	4,375	928	128	879	425	127	859	0.0
Comp & Periph Equip	15	4,895	2,774	588	81	558	269	80	544	0.0
Computer Software	15	34,053	19,298	4,093	565	3,879	1,873	558	3,787	0.0
Comp Software Personal	15	955	541	115	16	109	53	16	106	0.0
Data Handling Equipment	15	0	0	0	0	0	0	0	0	0.0
Other Office Equipment	15	79	45	9	1	9	4	1	9	0.0
Trans Equip Lt Duty Trks	15	72,940	41,335	8,767	1,211	8,308	4,012	1,196	8,111	0.0
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0	0.0
Trans Equip Autos	15	1,430	810	172	24	163	79	23	159	0.0
Trans Equip Other	15	(34,338)	(19,459)	(4,127)	(570)	(3,911)	(1,889)	(563)	(3,818)	0.0
Stores Equipment	15	0	0	0	0	0	0	0	0	0.0
Tools,Shop,Garage Equip	15	7,213	4,088	867	120	822	397	118	802	0.0
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0	0.0
Laboratory Equipment	2	51,442	21,575	9,265	2,047	12,115	6,276	21	144	0.0
Laboratory Equip Other	2	0	0	0	0	0	0	0	0	0.0
Power Operated Equipment	15	22,142	12,548	2,661	368	2,522	1,218	363	2,462	0.0
Comm Equip Non-Telephone	15	11,857	6,719	1,425	197	1,351	652	194	1,318	0.0
Comm Equip Telephone	15	(2,207)	(1,251)	(265)	(37)	(251)	(121)	(36)	(245)	0.0
Misc Equipment	15	33,001	18,702	3,967	548	3,759	1,815	541	3,670	0.0
Other Tangible Property	17	6,257	2,702	892	167	1,072	544	91	790	0.0
Total Utility Plant in Service		12,559,163	5,423,995	1,789,374	335,439	2,152,981	1,090,941	182,066	1,584,368	0.0

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG 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)
Other Rate Base Items										
Add:										
Other Utility Plant Adjustments	17	0	0	0	0	0	0	0	0	0.0
Cash Working Capital	15	(59,948)	(33,973)	(7,206)	(995)	(6,828)	(3,297)	(983)	(6,666)	0.0
Materials and Supplies	15	45,040	25,524	5,414	748	5,130	2,477	739	5,008	0.0
Prepayments	15	12	7	1	0	1	1	0	1	0.0
OPEB's Contributed to External Fund	16	51,549	27,460	5,923	804	5,639	2,717	995	8,011	0.0
Premature Retirement	17	0	0	0	0	0	0	0	0	0.0
Regulatory Deferrals	17	0	0	0	0	0	0	0	0	0.0
Less:										
Accumulated Deferred ITC (3%)	17	(2,836,985)	(1,225,010)	(404,270)	(75,747)	(486,259)	(246,534)	(41,136)	(358,028)	0.0
Deferred Income Taxes	17	(722,434)	(311,947)	(102,947)	(19,289)	(123,825)	(62,780)	(10,475)	(91,171)	0.0
Pensions	16	(65,350)	(34,812)	(7,509)	(1,019)	(7,149)	(3,444)	(1,261)	(10,155)	0.0
Total Other Rate Base Elements		(3,588,116)	(1,552,750)	(510,593)	(95,499)	(613,291)	(310,860)	(52,122)	(453,000)	0.0
Total Original Cost Measure of Value		\$ 8,971,047	\$ 3,871,244	\$ 1,278,780	\$ 239,940	\$ 1,539,690	\$ 780,080	\$ 129,944	\$ 1,131,368	0.0

T&D OP BASIS FOR FACTOR 11	95,465	42,342	11,715	1,730	13,233	6,728	2,773	16,944	0.0
FACTOR 11		0.4436	0.1227	0.0181	0.1386	0.0705	0.0290	0.1775	1.0000
T&D Mnt BASIS FOR FACTOR 12	7,319	3,352	669	75	582	281	211	2,150	0.0
FACTOR 12		0.4580	0.0914	0.0102	0.0795	0.0385	0.0288	0.2936	1.0000
A&G BASIS FOR FACTOR 15	517,334	293,209	62,175	8,611	58,907	28,433	8,491	57,508	0.0
FACTOR 15		0.5667	0.1202	0.0166	0.1139	0.0550	0.0164	0.1112	1.0000
LABOR BASIS FOR FACTOR 16	317,212	168,962	36,440	4,953	34,707	16,702	6,137	49,310	0.0
FACTOR 16		0.5327	0.1149	0.0156	0.1094	0.0527	0.0193	0.1554	1.0000
UPIS BASIS FOR FACTOR 17	12,546,317	5,418,448	1,787,543	335,096	2,150,779	1,089,824	181,880	1,582,746	0.0
FACTOR 17		0.4318	0.1425	0.0267	0.1714	0.0869	0.0145	0.1262	1.0000
RATE BASE BASIS FOR FACTOR 18	8,971,047	3,871,244	1,278,780	239,940	1,539,690	780,080	129,944	1,131,368	0.0
FACTOR 18		0.4316	0.1425	0.0267	0.1716	0.0870	0.0145	0.1261	1.0000
TOTAL COS BASIS FOR FACTOR 19	2,183,884	1,076,511	293,831	50,255	324,684	160,816	31,939	245,847	0.0
FACTOR 19		0.4930	0.1345	0.0230	0.1487	0.0736	0.0146	0.1126	1.0000
COS w/o Fire Factor 20	1,758,886	1,085,027	296,086	50,633	327,140	0			1,758,886
FACTOR 20		0.6169	0.1683	0.0288	0.1860	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	0.3937	0.1884	0.0470	0.2464	0.1194	0.0006	0.0045	1.0000
2	0.4194	0.1801	0.0398	0.2355	0.1220	0.0004	0.0028	1.0000
3	0.3974	0.1706	0.0376	0.2231	0.1156	0.0066	0.0491	1.0000
4	0.3270	0.1255	0.0211	0.1640	0.0934	0.0317	0.2373	1.0000
5	0.3037	0.1165	0.0197	0.1524	0.0866	0.0378	0.2833	1.0000
6	0.4184	0.1795	0.0396	0.2347	0.1216	0.0008	0.0054	1.0000
7	0.3270	0.1255	0.0211	0.1640	0.0934	0.0317	0.2373	1.0000
8	-	-	-	-	-	-	1.0000	1.0000

MISSOURI-AMERICAN WATER COMPANY
WARRENSBURG 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)	
		9	0.7509	0.1292	0.0153	0.0995	0.0051	-	-	1.0000
		10	0.8220	0.1014	0.0039	0.0313	0.0010	0.0404	-	1.0000
		11	0.4436	0.1227	0.0181	0.1386	0.0705	0.0290	0.1775	1.0000
		12	0.4580	0.0914	0.0102	0.0795	0.0385	0.0288	0.2936	1.0000
		13	0.8734	0.0922	0.0021	0.0215	0.0005	0.0103	-	1.0000
		14	0.8825	0.0932	0.0021	0.0217	0.0005	-	-	1.0000
		15	0.5667	0.1202	0.0166	0.1139	0.0550	0.0164	0.1112	1.0000
		16	0.5327	0.1149	0.0156	0.1094	0.0527	0.0193	0.1554	1.0000
		17	0.4318	0.1425	0.0267	0.1714	0.0869	0.0145	0.1262	1.0000
		18	0.4316	0.1425	0.0267	0.1716	0.0870	0.0145	0.1261	1.0000
		19	0.4930	0.1345	0.0230	0.1487	0.0736	0.0146	0.1126	1.0000
		20	0.6169	0.1683	0.0288	0.1860	-	-	-	1.0000

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

		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	4,713	2,931	1,767	0	0	0	15
Labor & Exp Oper SS	2	2,427	1,509	910	0	0	0	8
Purchased Water	1	0	0	0	0	0	0	0
TOTAL SS EXPENSE - OPERATION		7,140	4,440	2,678	0	0	0	23
Misc Exp Oper SS	2	52,526	32,661	19,697	0	0	0	168
Misc Exp Oper SS	2	370	230	139	0	0	0	1
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	36	22	14	0	0	0	0
Collect & Impound Maint SS	2	0	0	0	0	0	0	0
Lake, River & Oth Maint SS	2	33	21	12	0	0	0	0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0
Wells & Springs Maint SS	2	91	57	34	0	0	0	0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0
Infiltr 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	3,942	2,451	1,478	0	0	0	13
TOTAL SS EXPENSE - MAINTENANCE		56,998	35,441	21,374	0	0	0	182
TOTAL SS EXPENSE		64,138	39,881	24,052	0	0	0	205
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	960	593	356	5	0	0	6
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0
Purch Fuel/Power for Pump	1	18,345	18,251	0	0	0	0	94
Labor & Exp Oper Pump	6	525	324	195	3	0	0	3
Labor & Exp Oper Pump	6	26	16	10	0	0	0	0
Expenses Transferred	6	0	0	0	0	0	0	0
Misc Exp Oper P	6	46	28	17	0	0	0	0
Rents Oper P	6	51	32	19	0	0	0	0
TOTAL PUMPING EXPENSE - OPERATION		19,953	19,245	596	9	0	0	104

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

			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	48	30	18	0	0	0	0	0
Power Prod Equip Maint P	6	0	0	0	0	0	0	0	0
Pump Equip Maint P	6	0	0	0	0	0	0	0	0
Pump Equip Maint P	6	0	0	0	0	0	0	0	0
TOTAL PUMPING EXPENSES - MAINTENANCE		48	30	18	0	0	0	0	0
TOTAL PUMPING EXPENSES		20,001	19,274	614	9	0	0	0	104
WATER TREATMENT									
Super & Eng Oper WT	2	0	0	0	0	0	0	0	0
Chemicals	1	24,527	24,402	0	0	0	0	0	125
Labor & Exp Oper WT	2	24,109	14,991	9,041	0	0	0	0	77
Labor & Exp Oper WT	2	8,886	5,525	3,332	0	0	0	0	28
Misc Exp Oper WT	2	0	0	0	0	0	0	0	0
Misc Exp Oper WT	1	29,552	29,401	0	0	0	0	0	151
Misc Exp Oper WT	2	3,284	2,042	1,232	0	0	0	0	11
Rents Oper WT	2	0	0	0	0	0	0	0	0
TOTAL WT EXPENSE - OPERATION		90,358	76,361	13,605	0	0	0	0	392
Super & Eng Maint WT	2	0	0	0	0	0	0	0	0
Struct & Improve Maint WT	2	3,935	2,447	1,476	0	0	0	0	13
Struct & Improve Maint WT	2	0	0	0	0	0	0	0	0
WT Equip Maint WT	2	6,154	3,827	2,308	0	0	0	0	20
WT Equip Maint WT	2	3,256	2,025	1,221	0	0	0	0	10
TOTAL WT EXPENSE - MAINTENANCE		13,345	8,298	5,004	0	0	0	0	43
TOTAL WT EXPENSE		103,703	84,659	18,609	0	0	0	0	435
TRANSMISSION AND DISTRIBUTION EXPENSES									
Super & Eng Oper TD	11	0	0	0	0	0	0	0	0
Storage Facility Exp	5	66	15	0	30	0	0	0	21
Storage Facility Exp	5	435	101	0	194	0	0	0	140
TD Lines Exp	7	46,620	11,636	0	22,443	0	0	0	12,541
TD Lines Exp	7	24,186	6,037	0	11,643	0	0	0	6,506
Meter Expense	9	11,259	0	0	0	11,259	0	0	0
Meter Expense	9	298	0	0	0	298	0	0	0
Customer Install Exp	10	12,601	0	0	0	0	12,092	0	509
Customer Install Exp	10	0	0	0	0	0	0	0	0
Misc Exp Oper TD	11	1,617	301	0	581	196	205	0	334

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

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Misc Exp Oper TD	11	39,977	7,448	0	14,368	4,841	5,065	0	8,255
Misc Exp Oper TD	11	6,556	1,221	0	2,356	794	831	0	1,354
Rents Oper TD	11	0	0	0	0	0	0	0	0
TOTAL T & D EXPENSE OPERATION		143,615	26,760	0	51,615	17,388	18,193	0	29,660
Super & Eng Maint TD	12	1	0	0	0	0	0	0	0
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	67	16	0	30	0	0	0	22
TD Main Maint TD	7	2,919	729	0	1,405	0	0	0	785
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	2,862	0	0	0	0	2,746	0	116
Services Maint TD	10	0	0	0	0	0	0	0	0
Meters Maint TD	9	33	0	0	0	33	0	0	0
Meters Maint TD	9	0	0	0	0	0	0	0	0
Hydrants Maint TD	8	1,438	0	0	0	0	0	0	1,438
Hydrants Maint TD	8	0	0	0	0	0	0	0	0
Misc Plant Maint TD	12	100,611	10,232	0	19,730	453	37,759	0	32,437
Mat and Sup Maint TD	12	0	0	0	0	0	0	0	0
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		107,931	10,976	0	21,165	486	40,506	0	34,798
TOTAL T & D EXPENSE		251,546	37,736	0	72,780	17,874	58,699	0	64,457
CUSTOMER ACCOUNTS									
Supervision CA	13	488	0	0	0	0	0	483	5
Meter Reading Exp CA	14	34,510	0	0	0	0	0	34,510	0
Meter Reading Exp CA	14	0	0	0	0	0	0	0	0
Meter Reading Exp CA	14	2,561	0	0	0	0	0	2,561	0
Cust Rec & Collection CA	13	2,488	0	0	0	0	0	2,462	26
Cust Rec & Collection CA	13	26,342	0	0	0	0	0	26,071	271
Uncollectible Accts	13	25,351	0	0	0	0	0	25,090	261
Misc Cust Accts Exp CA	13	3,901	0	0	0	0	0	3,861	40
Misc Cust Accts Exp CA	13	1,467	0	0	0	0	0	1,452	15
Misc Cust Accts Exp CA	13	6,718	0	0	0	0	0	6,649	69
Cust Serv & Info Exp CA	13	46,544	0	0	0	0	0	46,065	479
TOTAL CUSTOMER ACCOUNTING EXPENSE		150,370	0	0	0	0	0	149,203	1,167

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
ADMINISTRATIVE AND GENERAL EXPENSES									
Salaries AG	15	55,027	11,649	4,600	7,742	1,898	6,246	15,870	7,021
Other Supplies & Exp AG	15	2,430	514	203	342	84	276	701	310
Other Supplies & Exp AG	15	27,398	5,800	2,290	3,855	945	3,110	7,902	3,496
Other Supplies & Exp AG	15	5,223	1,106	437	735	180	593	1,506	666
Mgmt Fees-Corporate/Shared Service Center	15	55,906	11,835	4,674	7,866	1,929	6,345	16,123	7,134
Mgmt Fees-Call Center	13	30,137	0	0	0	0	0	29,827	310
Mgmt Fees-Belleville Lab	2	31,416	19,534	11,781	0	0	0	0	101
Mgmt Fees- Financial ITS	15	2,933	621	245	413	101	333	846	374
Mgmt Fees- Customer Billings ITS	13	16,560	0	0	0	0	0	16,389	171
Mgmt Fees-Other ITS	15	186	39	16	26	6	21	54	24
Outside Services AG	15	14,467	3,063	1,209	2,036	499	1,642	4,172	1,846
Outside Services AG	15	0	0	0	0	0	0	0	0
Property Insurance	15	0	0	0	0	0	0	0	0
Ins Gen Liab Oper AG	15	8,191	1,734	685	1,152	283	930	2,362	1,045
Ins Work Comp AG	16	5,703	1,075	356	935	249	1,062	1,029	997
Ins Other Oper AG	15	10,713	2,268	896	1,507	370	1,216	3,090	1,367
Property Insurance	15	0	0	0	0	0	0	0	0
Injuries & Damages	16	162	31	10	27	7	30	29	28
Employee Pension & Benefits	16	81,629	15,387	5,102	13,379	3,559	15,207	14,726	14,269
Employee Pension & Benefits	16	0	0	0	0	0	0	0	0
Employee Pension & Benefits	16	0	0	0	0	0	0	0	0
Reg Commission Exp	15	1,979	419	165	278	68	225	571	253
Rents AG	15	8,454	1,790	707	1,189	292	960	2,438	1,079
Goodwill Advertising Exp	15	0	0	0	0	0	0	0	0
Misc Exp AG	15	(4,882)	(1,034)	(408)	(687)	(168)	(554)	(1,408)	(623)
Research & Development	15	0	0	0	0	0	0	0	0
TOTAL A & G OPERATIONS		353,632	75,832	32,968	40,795	10,302	37,641	116,226	39,867
General Plant Maint AG	15	136	29	11	19	5	15	39	17
General Plant Maint AG	15	3,442	729	288	484	119	391	993	439
TOTAL A & G EXPENSE - MAINTENANCE		3,578	757	299	503	123	406	1,032	457
TOTAL A & G EXPENSE		357,210	76,589	33,267	41,299	10,425	38,047	117,258	40,324
Total Operation & Maintenance Expenses		946,968	258,140	76,542	114,088	28,299	96,746	266,461	106,692

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
DEPRECIATION EXPENSE									
Struct & Imp SS	2	528	328	198	0	0	0	0	2
Struct & Imp P	6	732	452	271	4	0	0	0	5
Struct & Imp WT	2	8,732	5,430	3,275	0	0	0	0	28
Struct & Imp TD	7	1,518	379	0	731	0	0	0	408
Struct & Imp Offices	15	3,342	708	279	470	115	379	964	426
Struct & Imp Store,Shop,Gar	15	0	0	0	0	0	0	0	0
Struct & Imp Misc	15	0	0	0	0	0	0	0	0
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	16,051	9,981	6,019	0	0	0	0	51
Supply Mains	2	3,197	1,988	1,199	0	0	0	0	10
Power Generation Equip Othe	6	144	89	53	1	0	0	0	1
Pump Equip Electric	6	5,206	3,216	1,930	28	0	0	0	32
Pump Equip Diesel	6	0	0	0	0	0	0	0	0
Pump Equip Other	6	342	211	127	2	0	0	0	2
WT Equip Non-Media	2	63,509	39,490	23,816	0	0	0	0	203
Dist Reservoirs & Standpipe	5	9,804	2,274	0	4,382	0	0	0	3,148
Elevated Tanks & Standpipes	5	1,069	248	0	478	0	0	0	343
Ground Level Facilities	5	0	0	0	0	0	0	0	0
TD Mains Not Classified by	7	40,679	10,153	0	19,583	0	0	0	10,943
TD Mains 4 & Less "	4	779	194	0	375	0	0	0	210
TD Mains 6 to 8" "	4	15,044	3,755	0	7,242	0	0	0	4,047
TD Mains 10 to 16" "	3	10,317	6,077	3,666	0	0	0	0	575
TD Mains 18 & Grtr "	3	0	0	0	0	0	0	0	0
Fire Mains	8	1,203	0	0	0	0	0	0	1,203
Services	10	30,910	0	0	0	0	29,661	0	1,249
Meters Bronze Case	9	6,805	0	0	0	6,805	0	0	0
Meters Plastic Case	9	0	0	0	0	0	0	0	0
Meters Other	9	4,994	0	0	0	4,994	0	0	0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0	0
Meter Installations	9	14,827	0	0	0	14,827	0	0	0
Meter Installation Other	9	0	0	0	0	0	0	0	0
Hydrants	8	9,250	0	0	0	0	0	0	9,250
Other P/E Intangible	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	0	0	0	0	0	0	0	0
Other P/E CPS	15	0	0	0	0	0	0	0	0
Office Furniture & Equip	15	76	16	6	11	3	9	22	10
Comp & Periph Equip	15	1,224	259	102	172	42	139	353	156
Computer Software	15	0	0	0	0	0	0	0	0
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	9,737	2,061	814	1,370	336	1,105	2,808	1,242
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0
Trans Equip Autos	15	406	86	34	57	14	46	117	52
Trans Equip Other	15	0	0	0	0	0	0	0	0
Stores Equipment	15	0	0	0	0	0	0	0	0
Tools,Shop,Garage Equip	15	568	120	47	80	20	64	164	72
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0
Laboratory Equipment	2	1,796	1,117	674	0	0	0	0	6
Laboratory Equip Other	2	0	0	0	0	0	0	0	0

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

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Power Operated Equipment	15	2,521	534	211	355	87	286	727	322
Comm Equip Non-Telephone	15	593	126	50	83	20	67	171	76
Comm Equip Telephone	15	97	21	8	14	3	11	28	12
Misc Equipment	15	1,272	269	106	179	44	144	367	162
Other Tangible Property	15	320	68	27	45	11	36	92	41
Total Depreciation Expense		<u>267,592</u>	<u>89,648</u>	<u>42,913</u>	<u>35,661</u>	<u>27,321</u>	<u>31,949</u>	<u>5,813</u>	<u>34,287</u>
Amort-Other UP	18	(17,591)	(6,544)	(3,140)	(2,582)	(1,128)	(1,634)	(90)	(2,473)
Taxes Other Than Income									
Utility Reg Assessment Fee	19	14,998	4,843	1,993	2,007	805	1,513	1,929	1,908
Property Taxes	18	184,106	68,487	32,863	27,027	11,801	17,103	939	25,885
FUTA	16	314	59	20	51	14	58	57	55
FICA	16	16,242	3,062	1,015	2,662	708	3,026	2,930	2,839
SUTA	16	0	0	0	0	0	0	0	0
Other Taxes & Licenses	15	4,739	1,003	396	667	163	538	1,367	605
Gross Receipts Tax	19	0	0	0	0	0	0	0	0
Total Taxes, Other Than Income		<u>220,399</u>	<u>77,454</u>	<u>36,287</u>	<u>32,414</u>	<u>13,492</u>	<u>22,239</u>	<u>7,221</u>	<u>31,292</u>
Income Taxes	18	171,668	63,860	30,643	25,201	11,004	15,948	876	24,137
Utility Income Available for Return	18	611,825	227,599	109,211	89,816	39,218	56,839	3,120	86,023
Total Cost of Service		<u>2,200,861</u>	<u>710,158</u>	<u>292,455</u>	<u>294,597</u>	<u>118,206</u>	<u>222,086</u>	<u>283,401</u>	<u>279,957</u>
Less: Other Water Revenues	19	0	0	0	0	0	0	0	0
Billing and Collecting Services	19	0	0	0	0	0	0	0	0
Total Other Water Revenues		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Cost of Service Related to Sales of Water		<u>2,200,861</u>	<u>710,158</u>	<u>292,455</u>	<u>294,597</u>	<u>118,206</u>	<u>222,086</u>	<u>283,401</u>	<u>279,957</u>

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

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Reallocation of Public Fire	20	0	135,634	55,856	56,265	0	0	0	(247,756)
Total		<u>\$ 2,200,861</u>	<u>\$ 845,792</u>	<u>\$ 348,312</u>	<u>\$ 350,863</u>	<u>\$ 118,206</u>	<u>\$ 222,086</u>	<u>\$ 283,401</u>	<u>\$ 32,201</u>
			928,038			7,378	6,460	75,988	
			0.911			16.02	34.38		
Other Water Revenues		(54,043)	(54,043)			1.34	2.86	3.73	
		<u>\$ 2,146,818</u>	<u>\$ 791,749</u>					7.93	

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
RATE BASE									
Organization	17	1,506	559	268	221	96	140	9	212
Franchises	17	5,083	1,888	906	746	325	473	29	715
Land & Ld Rights SS	2	9,981	6,206	3,743	0	0	0	0	32
Land & Ld Rights P	6	0	0	0	0	0	0	0	0
Land & Ld Rights WT	2	511	318	192	0	0	0	0	2
Land & Ld Rights TD	7	37,348	9,322	0	17,979	0	0	0	10,047
Land & Land Rights AG	15	2,222	470	186	313	77	252	641	284
Struct & Imp SS	2	25,215	15,679	9,456	0	0	0	0	81
Struct & Imp P	6	55,695	34,401	20,652	298	0	0	0	345
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	712,249	442,876	267,093	0	0	0	0	2,279
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	81,202	20,268	0	39,091	0	0	0	21,843
Struct & Imp TD Spec Cross	7	0	0	0	0	0	0	0	0
Struct & Imp Offices	15	90,726	19,207	7,585	12,765	3,130	10,297	26,165	11,577
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	0	0	0	0	0	0	0	0
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	730,474	454,209	273,928	0	0	0	0	2,338
Supply Mains	2	145,412	90,417	54,530	0	0	0	0	465
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	5,271	3,256	1,954	28	0	0	0	33
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	429,935	265,558	159,420	2,297	0	0	0	2,660
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 Stratmanl	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	7,163	4,424	2,656	38	0	0	0	44
WT Equip Non-Media	2	2,992,315	1,860,621	1,122,118	0	0	0	0	9,575
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	(2,411)	(1,499)	(904)	0	0	0	0	(8)
Dist Reservoirs & Standpipe	5	366,304	84,946	0	163,738	0	0	0	117,620

MISSOURI-AMERICAN WATER COMPANY

WARRENSBURG DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

PSC STAFF STUDY

			Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
Elevated Tanks & Standpipes	5	56,690	13,146	0	25,340	0	0	0	18,203
Ground Level Facilities	5	0	0	0	0	0	0	0	0
TD Mains Not Classified by	7	2,028,015	506,193	0	976,286	0	0	0	545,536
TD Mains 4 & Less "	4	59,472	14,844	0	28,630	0	0	0	15,998
TD Mains 6 to 8" "	4	1,148,053	286,554	0	552,673	0	0	0	308,826
TD Mains 10 to 16" "	3	787,924	464,087	279,949	0	0	0	0	43,887
TD Mains 18 & Grtr "	3	0	0	0	0	0	0	0	0
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	82,633	0	0	0	0	0	0	82,633
Services	10	1,187,164	0	0	0	0	1,139,203	0	47,961
Meters Bronze Case	9	271,731	0	0	0	271,731	0	0	0
Meters Plastic Case	9	0	0	0	0	0	0	0	0
Meters Other	9	(15,846)	0	0	0	(15,846)	0	0	0
Meters Other-Rem Rdr Units	9	0	0	0	0	0	0	0	0
Meter Installations	9	538,114	0	0	0	538,114	0	0	0
Meter Installation Other	9	0	0	0	0	0	0	0	0
Hydrants	8	501,846	0	0	0	0	0	0	501,846
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	0	0	0	0	0	0	0	0
Other P/E CPS	15	(274)	(58)	(23)	(39)	(9)	(31)	(79)	(35)
Office Furniture & Equip	15	7,721	1,635	645	1,086	266	876	2,227	985
Comp & Periph Equip	15	4,895	1,036	409	689	169	556	1,412	625
Computer Software	15	34,053	7,209	2,847	4,791	1,175	3,865	9,821	4,345
Comp Software Personal	15	955	202	80	134	33	108	275	122
Data Handling Equipment	15	0	0	0	0	0	0	0	0
Other Office Equipment	15	79	17	7	11	3	9	23	10
Trans Equip Lt Duty Trks	15	72,940	15,441	6,098	10,263	2,516	8,279	21,036	9,307
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0
Trans Equip Autos	15	1,430	303	120	201	49	162	412	182
Trans Equip Other	15	(34,338)	(7,269)	(2,871)	(4,831)	(1,185)	(3,897)	(9,903)	(4,382)
Stores Equipment	15	0	0	0	0	0	0	0	0
Tools,Shop,Garage Equip	15	7,213	1,527	603	1,015	249	819	2,080	920
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0
Laboratory Equipment	2	51,442	31,987	19,291	0	0	0	0	165
Laboratory Equip Other	2	0	0	0	0	0	0	0	0
Power Operated Equipment	15	22,142	4,687	1,851	3,115	764	2,513	6,386	2,825
Comm Equip Non-Telephone	15	11,857	2,510	991	1,668	409	1,346	3,420	1,513
Comm Equip Telephone	15	(2,207)	(467)	(185)	(311)	(76)	(250)	(636)	(282)
Misc Equipment	15	33,001	6,986	2,759	4,643	1,139	3,746	9,517	4,211
Other Tangible Property	17	6,257	2,324	1,115	919	400	583	36	880
Total Utility Plant in Service		12,559,163	4,666,022	2,237,468	1,843,799	803,529	1,169,048	72,871	1,766,425

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		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	(59,948)	(12,691)	(5,012)	(8,435)	(2,068)	(6,804)	(7,649)
Materials and Supplies	15	45,040	9,535	3,765	6,337	1,554	5,112	5,747
Prepayments	15	12	3	1	2	0	1	2
OPEB's Contributed to External Fund	16	51,549	9,717	3,222	8,449	2,248	9,604	9,011
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	(2,836,985)	(1,053,940)	(505,551)	(416,469)	(181,567)	(264,123)	(398,880)
Deferred Income Taxes	17	(722,434)	(268,384)	(128,738)	(106,053)	(46,236)	(67,259)	(101,574)
Pensions	16	(65,350)	(12,318)	(4,084)	(10,711)	(2,849)	(12,175)	(11,423)
Total Other Rate Base Elements		<u>(3,588,116)</u>	<u>(1,328,079)</u>	<u>(636,396)</u>	<u>(526,881)</u>	<u>(228,918)</u>	<u>(335,644)</u>	<u>(504,767)</u>
Total Original Cost Measure of Value		<u>\$ 8,971,047</u>	<u>\$ 3,337,943</u>	<u>\$ 1,601,072</u>	<u>\$ 1,316,919</u>	<u>\$ 574,611</u>	<u>\$ 833,404</u>	<u>\$ 45,441</u>
								<u>\$ 1,261,658</u>

T&D OP BASIS FOR FACTOR 11	95,465	17,789	0	34,310	11,557	12,092	0	19,717
FACTOR 11		0.1863	0.0000	0.3595	0.1211	0.1267	0.0000	0.2065
T&D Mnt BASIS FOR FACTOR 12	7,319	744	0	1,435	33	2,746	0	2,360
FACTOR 12		0.1017	0.0000	0.1961	0.0045	0.3753	0.0000	0.3225
A&G BASIS FOR FACTOR 15	517,334	109,496	43,275	72,789	17,874	58,699	149,203	65,999
FACTOR 15		0.2117	0.0836	0.1407	0.0345	0.1135	0.2884	0.1276
LABOR BASIS FOR FACTOR 16	317,212	59,826	19,818	51,988	13,844	59,064	57,225	55,447
FACTOR 16		0.1886	0.0625	0.1639	0.0436	0.1863	0.1804	0.1748
UPIS BASIS FOR FACTOR 17	12,546,317	4,661,250	2,235,179	1,841,913	802,707	1,167,852	72,796	1,764,619
FACTOR 17		0.3715	0.1782	0.1468	0.0640	0.0931	0.0058	0.1406
RATE BASE BASIS FOR FACTOR 18	8,971,047	3,337,943	1,601,072	1,316,919	574,611	833,404	45,441	1,261,658
FACTOR 18		0.3720	0.1785	0.1468	0.0641	0.0929	0.0051	0.1406
TOTAL COS BASIS FOR FACTOR 19	2,183,884	704,896	290,297	292,312	117,333	220,348	280,902	277,796
FACTOR 19		0.3229	0.1329	0.1338	0.0537	0.1009	0.1286	0.1272
COS w/o Fire Factor 20	1,297,211	710,158	292,455	294,597				
FACTOR 20		0.5474	0.2254	0.2271				

	2	4	6	8	10	12	14
	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
1	0.9949	-	-	-	-	-	0.0051
2	0.6218	0.3750	-	-	-	-	0.0032
3	0.5890	0.3553	-	-	-	-	0.0557
4	0.2496	-	0.4814	-	-	-	0.2690
5	0.2319	-	0.4470	-	-	-	0.3211
6	0.6177	0.3708	0.0053	-	-	-	0.0062
7	0.2496	-	0.4814	-	-	-	0.2690
8	-	-	-	-	-	-	1.0000

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	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
9	-	-	-	1.0000	-	-	-
10	-	-	-	-	0.9596	-	0.0404
11	0.1863	-	0.3594	0.1211	0.1267	-	0.2065
12	0.1017	-	0.1961	0.0045	0.3753	-	0.3224
13	-	-	-	-	-	0.9897	0.0103
14	-	-	-	-	-	1.0000	-
15	0.2117	0.0836	0.1407	0.0345	0.1135	0.2884	0.1276
16	0.1885	0.0625	0.1639	0.0436	0.1863	0.1804	0.1748
17	0.3715	0.1782	0.1468	0.0640	0.0931	0.0058	0.1406
18	0.3720	0.1785	0.1468	0.0641	0.0929	0.0051	0.1408
19	0.3229	0.1329	0.1338	0.0537	0.1009	0.1286	0.1272
20	0.5474	0.2254	0.2271				

**MISSOURI-AMERICAN WATER COMPANY
WARRENSBURG 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	Average Daily Consumption, Thousand Gallons	Allocation Factor
(1)	(2)	(3)
Residential	1,006.1	0.3937
Commercial	481.4	0.1884
Industrial	120.2	0.0470
Other Public Authority	629.8	0.2464
Sales for Resale	305.1	0.1194
Private Fire Protection	1.5	0.0006
Public Fire Protection	11.5	0.0045
Total	2,555.6	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	Average Daily Consumption		Maximum Day Extra Capacity		Allocation Factor
	Allocation Factor 1	Weighted Factor	Allocation Factor	Weighted Factor	
(1)	(2)	(3)=(2)x 0.6250	(4)	(5)=(4)x 0.3750	(6)=(3)+(5)
Residential	0.3937	0.2460	0.4627	0.1734	0.4194
Commercial	0.1884	0.1178	0.1661	0.0623	0.1801
Industrial	0.0470	0.0294	0.0276	0.0104	0.0398
Other Public Authority	0.2464	0.1540	0.2173	0.0815	0.2355
Sales for Resale	0.1194	0.0746	0.1263	0.0474	0.1220
Private Fire Protection	0.0006	0.0004			0.0004
Public Fire Protection	0.0045	0.0028			0.0028
Total	1.0000	0.6250	1.0000	0.3750	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.

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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 (1)	Average Daily Consumption, Thousand Gal. (2)	Maximum Day Extra Capacity		
		Factor* (3)	Rate of Flow, Thousand Gal. Per Day (4)=(2)x(3)	Allocation Factor (5)
Residential	1,006	1.00	1,006	0.4627
Commercial	481	0.75	361	0.1661
Industrial	120	0.50	60	0.0276
Other Public Authority	630	0.75	472	0.2173
Sales for Resale	305	0.90	275	0.1263
Total	2,543		2,174	1.0000

The weighting of the factors is based on the maximum day ratio of 1.70, based on a review of maximum day ratios experienced during the period 1990 through 2002 (see Schedule D).

	Maximum Day Ratio	Weight
Average Day	1.00	0.6250
Maximum Day Extra Capacity	0.60	0.3750
Total	1.60	1.0000

* Ratio of maximum day to average day minus 1.0.

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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 0.5921	(4)	(5)=(4) X 0.3553	(6)	(7)=(6) X 0.0526	(8)=(3)+(5)+(7)
Residential	0.3937	0.2330	0.4627	0.1644			0.3974
Commercial	0.1884	0.1116	0.1661	0.0590			0.1706
Industrial	0.0470	0.0278	0.0276	0.0098			0.0376
Other Public Authority	0.2464	0.1459	0.2173	0.0772			0.2231
Sales for Resale	0.1194	0.0707	0.1263	0.0449			0.1156
Private Fire Protection	0.0006	0.0004			0.1178	0.0062	0.0066
Public Fire Protection	0.0045	0.0027			0.8822	0.0464	0.0491
Total	1.0000	0.5921	1.0000	0.3553	1.0000	0.0526	1.0000

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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 1.60 and the average daily system sendout for 2002 of 2.70 MGD. The system demand for fire protection is 2,000 Gallons per minute for 2 hours.

	<u>Ratio</u>	<u>Rate of Flow, (GPD)</u>	<u>Weight</u>
Average Day	1.00	2,700,000	0.5921
Maximum Day Extra Capacity	<u>0.60</u>	<u>1,620,000</u>	<u>0.3553</u>
Subtotal	<u>1.60</u>	4,320,000	0.9474
Fire Protection		<u>240,000</u>	<u>0.0526</u>
Total		<u>4,560,000</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 0.2509	(5)	(6)=(5) X 0.4814	(7)	(8)=(7) X 0.2677	(9)=(4)+(6)+(8)
Residential	41.9	0.3937	0.0987	0.4744	0.2283			0.3270
Commercial	20.1	0.1884	0.0473	0.1624	0.0782			0.1255
Industrial	5.0	0.0470	0.0118	0.0194	0.0093			0.0211
Other Public Authority	26.2	0.2464	0.0618	0.2122	0.1022			0.1640
Sales for Resale	12.7	0.1194	0.0300	0.1316	0.0634			0.0934
Private Fire Protection	0.1	0.0006	0.0002			0.1178	0.0315	0.0317
Public Fire Protection	0.5	0.0045	0.0011			0.8822	0.2362	0.2373
Total	106.5	1.0000	0.2509	1.0000	0.4814	1.0000	0.2677	1.0000

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

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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 2.93 and the average daily system sendout for 2002 of 2.70 MGD. The system demand for fire protection is 2000 gallons per minute.

	<u>Ratio</u>	<u>Rate of Flow, (GPM)</u>	<u>Weight</u>
Average Hour	1.00	1,875	0.2509
Maximum Hour Extra Capacity	<u>1.92</u>	<u>3,597</u>	<u>0.4814</u>
Subtotal	<u>2.92</u>	<u>5,472</u>	<u>0.7323</u>
Fire Protection		<u>2,000</u>	<u>0.2677</u>
Total		<u>7,472</u>	<u>1.0000</u>

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

<u>Customer Classification</u>	<u>Average Hourly Consumption Thousand Gal.</u>	<u>Maximum Hour Extra Capacity</u>		
		<u>Factor*</u>	<u>1,000 Gallons Per Hour</u>	<u>Allocation Factor</u>
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	41.9	3.5	146.7	0.4744
Commercial	20.1	2.5	50.2	0.1624
Industrial	5.0	1.2	6.0	0.0194
Other Public Authority	26.2	2.5	65.6	0.2122
Sales for Resale	<u>12.7</u>	<u>3.2</u>	<u>40.7</u>	<u>0.1316</u>
Total	<u>105.9</u>		<u>309.2</u>	<u>1.0000</u>

* Ratio of Maximum Hour To Average Hour Minus 1.0.

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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 0.2330	(5)	(6)=(5) X 0.4470	(7)	(8)=(7) X 0.3200	(9)=(4)+(6)+(8)
Residential	41.9	0.3937	0.0917	0.4744	0.2120			0.3037
Commercial	20.1	0.1884	0.0439	0.1624	0.0726			0.1165
Industrial	5.0	0.0470	0.0110	0.0194	0.0087			0.0197
Other Public Authority	26.2	0.2464	0.0575	0.2122	0.0949			0.1524
Sales for Resale	12.7	0.1194	0.0278	0.1316	0.0588			0.0866
Private Fire Protection	0.1	0.0006	0.0001			0.1178	0.0377	0.0378
Public Fire Protection	0.5	0.0045	0.0010			0.8822	0.2823	0.2833
Total	106.5	1.0000	0.2330	1.0000	0.4470	1.0000	0.3200	1.0000

The weighting of the factors is based on the ratio of the capacity required for a 10 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

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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 2 hour demand of fire flow, as related to total storage capacity.

$$\text{Fire Protection Weight} = \frac{2,000 \text{ GPM} \times 60 \text{ Min.} \times 2 \text{ Hrs.}}{750,000 \text{ Gallons}} = 0.3200$$

$$\text{General Service Weight : } 1.0000 - 0.3200 = 0.6800$$

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

	Maximum Hour Ratio	Percent	Weight
Average Hour	1.00	34.26	0.2330
Extra Capacity Maximum Hour	1.92	65.74	0.4470
Total	2.92	100.00	0.6800

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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 Factor
	Allocation Factor 2	Weighted Factor	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	
(1)	(2)	(3)=(2)X 0.9889	(4)	(5)=(4)X 0.0000	(6)	(7)=(6)X 0.0111	(8)=(3)+ (5)+(7)
Residential	0.4194	0.4146	0.3973	0.0000	0.3269	0.0037	0.4183
Commercial	0.1801	0.1781	0.1706	0.0000	0.1255	0.0014	0.1795
Industrial	0.0398	0.0394	0.0376	0.0000	0.0211	0.0002	0.0396
Other Public Authority	0.2355	0.2329	0.2231	0.0000	0.1640	0.0018	0.2347
Sales for Resale	0.1220	0.1206	0.1156	0.0000	0.0934	0.0010	0.1216
Private Fire Protection	0.0004	0.0004	0.0066	0.0000	0.0317	0.0004	0.0008
Public Fire Protection	0.0028	0.0028	0.0491	0.0000	0.2373	0.0026	0.0054
Total	<u>1.0000</u>	<u>0.9888</u>	<u>0.9999</u>	<u>0.0000</u>	<u>0.9999</u>	<u>0.0111</u>	<u>0.9999</u>

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:

	<u>Horsepower of Pumps</u>	<u>Weight</u>
Associated with Maximum Day	715	0.9889
Associated with Maximum Day and Fire	0	0.0000
Associated with Maximum Hour	<u>8</u>	<u>0.0111</u>
Total	<u>723</u>	<u>1.0000</u>

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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 (1)	Maximum Daily Consumption		Maximum Hourly Consumption		Allocation Factor (6)=(3)+(5)
	Allocation Factor 3 (2)	Weighted Factor (3)=(2)X 0.0000	Allocation Factor 4 (4)	Weighted Factor (5)=(4)X 1.0000	
Residential	0.3974	0.0000	0.3270	0.3270	0.3270
Commercial	0.1706	0.0000	0.1255	0.1255	0.1255
Industrial	0.0376	0.0000	0.0211	0.0211	0.0211
Other Public Authority	0.2231	0.0000	0.1640	0.1640	0.1640
Sales for Resale	0.1156	0.0000	0.0934	0.0934	0.0934
Private Fire Protection	0.0066	0.0000	0.0317	0.0317	0.0317
Public Fire Protection	0.0491	0.0000	0.2373	0.2373	0.2373
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	95,346	0.0000
Distribution Mains	<u>404,280</u>	<u>1.0000</u>
Total	<u>499,626</u>	1.0000

**MISSOURI-AMERICAN WATER COMPANY
WARRENSBURG DISTRICT
PSC STAFF STUDY**

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.

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

<u>Customer Classification</u> (1)	<u>5/8" Dollar Equivalents</u> (2)	<u>Allocation Factor</u> (3)
Residential	5,540	0.7509
Commercial	953	0.1292
Industrial	113	0.0153
Other Public Authority	734	0.0995
Sales for Resale	38	0.0051
Private Fire	<u>0</u>	<u>0.0000</u>
Total	<u>7,378</u>	<u>1.0000</u>

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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	5,533	0.8220
Commercial	683	0.1014
Industrial	26	0.0039
Other Public Authority	211	0.0313
Sales for Resale	7	0.0010
Private Fire Protection	<u>272</u>	<u>0.0404</u>
Total	6,731	<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 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	\$ 42,342	0.4435
Commercial	11,715	0.1227
Industrial	1,730	0.0181
Other Public Authority	13,233	0.1386
Sales for Resale	6,728	0.0705
Private Fire Protection	2,773	0.0290
Public Fire Protection	16,944	0.1775
Total	95,465	1.0000

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	\$ 3,352	0.4580
Commercial	669	0.0914
Industrial	75	0.0102
Other Public Authority	582	0.0795
Sales for Resale	281	0.0385
Private Fire Protection	211	0.0288
Public Fire Protection	2,150	0.2937
Total	\$7,319	1.0000

**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 (1)	Total Customers (2)	Allocation Factor (3)
Residential	5,531	0.8734
Commercial	584	0.0922
Industrial	13	0.0021
Other Public Authority	136	0.0215
Sales for Resale	3	0.0005
Private Fire Protection	65	0.0103
Public Fire Protection	0	0.0000
Total	<u>6,332</u>	<u>1.0000</u>

FACTOR 14.

ALLOCATION OF METER READING COSTS.

Factors are based on the number of metered customers.

Customer Classification (1)	Total Metered Customers (2)	Allocation Factor (3)
Residential	5,531	0.8825
Commercial	584	0.0932
Industrial	13	0.0021
Other Public Authority	136	0.0217
Sales for Resale	3	0.0005
Total	<u>6,267</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.

Customer Classification	Operation & Maintenance Expenses	Allocation Factor
(1)	(2)	(3)
Residential	\$293,209	0.5668
Commercial	62,175	0.1202
Industrial	8,611	0.0166
Other Public Authority	58,907	0.1139
Sales for Resale	28,433	0.0550
Private Fire Protection	8,491	0.0164
Public Fire Protection	57,508	0.1112
Total	<u>\$517,334</u>	<u>1.0000</u>

**MISSOURI-AMERICAN WATER COMPANY
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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	Original Cost Measure of Value	Allocation Factor
(1)	(2)	(3)
Residential	\$3,871,244	0.4315
Commercial	1,278,780	0.1425
Industrial	239,940	0.0267
Other Public Authority	1,539,690	0.1716
Sales for Resale	780,080	0.0870
Private Fire Protection	129,944	0.0145
Public Fire Protection	1,131,368	0.1261
Total	<u>\$8,971,047</u>	<u>1.0000</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	Total Cost of Service	Allocation Factor
(1)	(2)	(3)
Residential	\$1,076,511	0.4929
Commercial	293,831	0.1345
Industrial	50,255	0.0230
Other Public Authority	324,684	0.1487
Sales for Resale	160,816	0.0736
Private Fire Protection	31,939	0.0146
Public Fire Protection	245,847	0.1126
Total	<u>\$2,183,884</u>	<u>1.0000</u>

MISSOURI-AMERICAN WATER COMPANY
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PSC STAFF STUDY

BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

Meter Size (1)	5/8" Dollar Equivalent (2)	Residential		Commercial		Industrial		Other Public Authority		Sales for Resale		Total	
		Number of Meters (3)	Weighting (4)=(2)X(3)	Number of Meters (5)	Weighting (6)=(2)X(5)	Number of Meters (7)	Weighting (8)=(2)X(7)	Number of Meters (9)	Weighting (10)=(2)X(9)	Number of Meters (11)	Weighting (12)=(2)X(11)	Number of Meters (13)	Weighting (14)
5/8	1.0	5,517.67	5,517.67	408.67	408.67	0.00	0.00	72.38	72.38	0.00	0.00	5,998.71	5,998.71
3/4	1.3	1.00	1.30	5.00	6.50	0.00	0.00	1.25	1.63	0.00	0.00	7.25	9.43
1	1.7	12.33	20.97	77.58	131.89	3.00	5.10	3.67	6.23	0.00	0.00	96.58	164.19
1-1/2	3.5	0.00	0.00	26.08	91.29	1.00	3.50	5.00	17.50	0.00	0.00	32.08	112.29
2	4.3	0.00	0.00	64.67	278.07	6.25	26.88	34.83	149.78	2.00	8.60	107.75	463.33
3	19.0	0.00	0.00	1.92	36.42	1.00	19.00	6.83	129.83	0.00	0.00	9.75	185.25
4	29.3	0.00	0.00	0.00	0.00	2.00	58.60	12.17	356.48	1.00	29.30	15.17	444.38
6	48.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	112.9	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>5,531.00</u>	<u>5,539.93</u>	<u>583.92</u>	<u>952.83</u>	<u>13.25</u>	<u>113.08</u>	<u>136.13</u>	<u>733.83</u>	<u>3.00</u>	<u>37.90</u>	<u>6,267.29</u>	<u>7,377.58</u>

MISSOURI-AMERICAN WATER COMPANY
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BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

Service Size	3/4" Dollar Equivalent	Residential		Commercial		Industrial		Other Public Authority		Sales for Resale		Private Fire Protection		Total	
		Number of Services	Weighting (4)=(2)X(3)	Number of Services	Weighting (6)=(2)X(5)	Number of Services	Weighting (8)=(2)X(7)	Number of Services	Weighting (10)=(2)X(9)	Number of Services	Weighting (12)=(2)X(11)	Number of Services	Weighting (14)=(2)X(13)	Number of Services	Weighting (16)
(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)=(2)X(13)	(15)	(16)
3/4	1.00	5,518.67	5,518.67	413.67	413.67	0.00	0.00	73.63	73.63	0.00	0.00	0.00	0.00	6,005.96	6,005.96
1	1.17	12.33	14.43	77.58	90.77	3.00	3.51	3.67	4.29	0.00	0.00	0.00	0.00	96.58	113.00
1-1/2	1.58	0.00	0.00	26.08	41.21	1.00	1.58	5.00	7.90	0.00	0.00	0.00	0.00	32.08	50.69
2	2.04	0.00	0.00	64.67	131.92	6.25	12.75	34.83	71.06	2.00	4.08	2.00	4.08	109.75	223.89
3	2.73	0.00	0.00	1.92	5.23	1.00	2.73	6.83	18.66	0.00	0.00	1.00	2.73	10.75	29.35
4	2.88	0.00	0.00	0.00	0.00	2.00	5.76	12.17	35.04	1.00	2.88	15.00	43.20	30.17	86.88
6	4.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27.00	114.48	27.00	114.48
8	6.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	97.72	14.00	97.72
10	9.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	9.50	1.00	9.50
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>5,531.00</u>	<u>5,533.10</u>	<u>583.92</u>	<u>682.80</u>	<u>13.25</u>	<u>26.33</u>	<u>136.13</u>	<u>210.57</u>	<u>3.00</u>	<u>6.96</u>	<u>60.00</u>	<u>271.71</u>	<u>6,327.29</u>	<u>6,731.47</u>

MISSOURI-AMERICAN WATER COMPANY
WARRENSBURG 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>				
<u>Fire Lines</u>				
2 -inch	4.00	2	8	
3 -inch	9.00	0	0	
4 -inch	16.00	15	240	
6 -inch	36.00	27	972	
8 -inch	64.00	14	896	
10 -inch	100.00	1	100	
12 -inch	144.00	0	0	
Private Hydrants	32.75	6	197	
Total Private Fire Protection		65	2,413	0.1178
<u>PUBLIC FIRE PROTECTION</u>				
<u>Hydrant</u>	<u>Nozzle Sizes</u>			
6" Valve	2- 2-1/2" & 1- 4.5"	32.75	0	0
6" Valve	2- 2-1/2" & 1- 4"	28.50	634	18,069
Total Public Fire Protection		634	18,069	0.8822
Total Fire Protection		699	20,482	1.0000