

MISSOURI-AMERICAN WATER COMPANY
BRUNSWICK 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	\$ 220,470	53.7%	\$ 100,478	49.5%	\$ 220,470	53.7%	\$ 119,992	119.4%
Commercial	56,130	13.7%	\$ 27,974	13.9%	\$ 56,130	13.7%	28,156	100.7%
Industrial	1,085	0.3%	\$ 744	0.4%	\$ 1,085	0.3%	341	45.8%
Public Authority	6,828	1.7%	\$ 3,553	1.8%	\$ 6,828	1.7%	3,275	92.2%
Sales for Resale	120,777	29.4%	\$ 64,973	32.0%	\$ 120,777	29.4%	55,804	85.9%
Private Fire Service	5,637	1.4%	\$ 5,071	2.5%	\$ 5,637	1.4%	566	11.2%
Public Fire Service	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Total Sales	410,927	<u>100.2%</u>	202,793	<u>100.1%</u>	410,927	<u>100.2%</u>	208,134	102.6%
Other Revenues	<u>9,574</u>		<u>9,574</u>		<u>9,574</u>		-	0.0%
Total	<u>\$ 420,501</u>		<u>\$ 212,367</u>		<u>\$ 420,501</u>		<u>\$ 208,134</u>	98.0%

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: Brunswick

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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	17,819	\$100,478	17,819	\$220,470	\$119,992	119.42%
5	Commercial	5,290	27,974	5,290	56,130	28,156	100.65%
6	Industrial	92	744	92	1,085	341	45.83%
7	Other Public Authority	674	3,553	674	6,828	3,275	92.18%
8	Other Water Utilities	15,842	64,973	15,842	120,777	55,804	85.89%
9	Miscellaneous	0	0	0	0	0	0.00%
10	Private Fire	0	5,071	0	5,637	566	11.16%
11	Public Fire	0	0	0	0	0	0.00%
12	Total	<u>39,716</u>	<u>202,793</u>	<u>39,716</u>	<u>410,927</u>	<u>\$208,134</u>	<u>102.63%</u>
13							
14							
15	Miscellaneous Revenues:						
16							
17	Reconnect Charges		200		200	0	0.00%
18	Returned Check Charge		60		60	0	0.00%
19	Application Fee		2,000		2,000	0	0.00%
20	Miscellaneous Other Revenue		7,334		7,334	0	0.00%
21	Rents from Water Property		0		0	0	0.00%
22							
23							
24			<u>\$212,387</u>		<u>\$420,521</u>	<u>208,134</u>	<u>98.00%</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: Brunswick

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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	4,627		\$7.08	\$32,759	4,627		\$ 15.28	\$70,683	\$37,924	115.77%
5	3/4" Monthly	0		9.06	0	0		\$ 17.04	0	0	0.00%
6	1" Monthly	4		12.84	50	4		\$ 19.64	77	27	54.00%
7	1-1/2" Monthly	0		22.33	0	0		\$ 30.82	0	0	0.00%
8	2" Monthly	36		33.71	1,214	36		\$ 36.21	1,304	90	7.41%
9	3" Monthly	0		60.24	0	0		\$ 123.53	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 184.20	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 298.35	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 681.02	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		4,667									
16											
17	<u>Volumetric Charges:</u>										
18	First Block		17,777	\$3.7333	66,367		17,777	\$8.3285	148,056	81,689	123.09%
19	Second Block		42	2.0914	88		42	\$8.3285	350	262	297.73%
20	Third Block		0	1.6140	0		0	\$8.3285	0	0	0.00%
21	Fourth Block		0	1.0869	0		0	\$8.3285	0	0	0.00%
22											
23											
24	Total		<u>17,819</u>		<u>\$100,478</u>		<u>17,819</u>		<u>\$220,470</u>	<u>\$119,992</u>	<u>119.42%</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: Brunswick

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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	656		\$7.08	\$4,644	656		\$ 15.28	\$10,021	\$5,377	115.78%
5	3/4" Monthly	4		9.06	36	4		\$ 17.04	68	32	88.89%
6	1" Monthly	156		12.84	2,003	156		\$ 19.64	3,064	1,061	52.97%
7	1-1/2" Monthly	5		22.33	112	5		\$ 30.82	154	42	37.50%
8	2" Monthly	85		33.71	2,865	85		\$ 36.21	3,078	213	7.43%
9	3" Monthly	0		60.24	0	0		\$ 123.53	0	0	0.00%
10	4" Monthly	3		98.15	294	3		\$ 184.20	553	259	88.10%
11	6" Monthly	2		192.93	386	2		\$ 298.35	597	211	54.66%
12	8" Monthly	0		306.65	0	0		\$ 681.02	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		4,895	\$3.4466	16,871		4,895	\$7.2958	35,713	18,842	111.68%
19	Second Block		395	1.9308	763		395	\$7.2958	2,882	2,119	277.72%
20	Third Block		0	1.4901	0		0	7.2958	0	0	0.00%
21	Fourth Block		0	1.0034	0		0	7.2958	0	0	0.00%
22											
23											
24	Total		<u>5,290</u>		<u>\$27,974</u>		<u>5,290</u>		<u>\$56,130</u>	<u>\$28,156</u>	<u>100.65%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
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District: Brunswick

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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	12		\$7.08	\$85	12		\$ 15.28	\$183	\$98	115.29%
5	3/4" Monthly	0		9.06	0	0		\$ 17.04	0	0	0.00%
6	1" Monthly	12		12.84	154	12		\$ 19.64	236	82	53.25%
7	1-1/2" Monthly	0		22.33	0	0		\$ 30.82	0	0	0.00%
8	2" Monthly	0		33.71	0	0		\$ 36.21	0	0	0.00%
9	3" Monthly	0		60.24	0	0		\$ 123.53	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 184.20	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 298.35	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 681.02	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%
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16											
17	<u>Volumetric Charges:</u>										
18	First Block		91.5	\$5.5215	505		91.5	\$7.2831	666	161	31.88%
19	Second Block		0	3.0931	0		0	7.2831	0	0	0.00%
20	Third Block		0	2.3870	0		0	7.2831	0	0	0.00%
21	Fourth Block		0	1.6075	0		0	7.2831	0	0	0.00%
22											
23											
24	Total		<u>92</u>		<u>\$744</u>		<u>92</u>		<u>\$1,085</u>	<u>\$341</u>	<u>45.83%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
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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	60		\$7.08	\$425	60		\$ 15.28	\$917	\$492	115.76%
5	3/4" Monthly	0		9.06	0	0		\$ 17.04	0	0	0.00%
6	1" Monthly	0		12.84	0	0		\$ 19.64	0	0	0.00%
7	1-1/2" Monthly	0		22.33	0	0		\$ 30.82	0	0	0.00%
8	2" Monthly	12		33.71	405	12		\$ 36.21	435	30	7.41%
9	3" Monthly	0		60.24	0	0		\$ 123.53	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 184.20	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 298.35	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 681.02	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		673.9	\$4.0402	2,723		673.9	\$8.1260	5,476	2,753	101.10%
19	Second Block		0	2.2633	0		0	8.1260	0	0	0.00%
20	Third Block		0	1.7467	0		0	8.1260	0	0	0.00%
21	Fourth Block		0	1.1762	0		0	8.1260	0	0	0.00%
22											
23											
24	Total		<u>674</u>		<u>\$3,553</u>		<u>674</u>		<u>\$6,828</u>	<u>\$3,275</u>	<u>92.18%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

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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	12		\$7.08	\$85	12		\$ 15.28	\$183	\$98	115.29%
5	3/4" Monthly	0		9.06	0	0		\$ 17.04	0	0	0.00%
6	1" Monthly	12		12.84	154	12		\$ 19.64	236	82	53.25%
7	1-1/2" Monthly	0		22.33	0	0		\$ 30.82	0	0	0.00%
8	2" Monthly	36		33.71	1,214	36		\$ 36.21	1,304	90	7.41%
9	3" Monthly	0		60.24	0	0		\$ 123.53	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 184.20	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 298.35	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 681.02	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		1,200.0	\$6.7558	8,107		1,200	\$7.51516	9,018	911	11.24%
19	Second Block		14,641.8	3.7846	55,413		14,642	\$7.51516	110,036	54,623	98.57%
20	Third Block		0	2.9207	0		0	7.5152	0	0	0.00%
21	Fourth Block		0	1.9668	0		0	7.5152	0	0	0.00%
22											
23											
24	Total		<u>15,842</u>		<u>\$64,973</u>		<u>15,842</u>		<u>\$120,777</u>	<u>\$55,804</u>	<u>85.89%</u>
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Test Year Operating Revenues at Present Rates vs Proposed Rates
12 Month Test Period Ended December 31, 2002

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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		\$ 15.28	\$0	\$0	0.00%
5	3/4" Monthly	0		9.06	0	0		\$ 17.04	0	0	0.00%
6	1" Monthly	0		12.84	0	0		\$ 19.64	0	0	0.00%
7	1-1/2" Monthly	0		22.33	0	0		\$ 30.82	0	0	0.00%
8	2" Monthly	0		33.71	0	0		\$ 36.21	0	0	0.00%
9	3" Monthly	0		60.24	0	0		\$ 123.53	0	0	0.00%
10	4" Monthly	0		98.15	0	0		\$ 184.20	0	0	0.00%
11	6" Monthly	0		192.93	0	0		\$ 298.35	0	0	0.00%
12	8" Monthly	0		306.65	0	0		\$ 681.02	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
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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	3.00	\$1,252.68	\$3,758	1,392.45	\$4,177	\$419	11.15%
5								
6	2"	0.00	179.52	0	199.55	0	0	0.00%
7								
8	3"	0.00	308.52	0	342.94	0	0	0.00%
9								
10	4"	0.00	489.48	0	544.09	0	0	0.00%
11								
12	6"	1.31	1,003.80	1,313	1,115.80	1,460	147	11.20%
13								
14	8"	0.00	1,727.16	0	1,919.87	0	0	0.00%
15								
16	10"	0.00	2,654.88	0	2,951.09	0	0	0.00%
17								
18	12"	0.00	3,785.40	0	4,207.75	0	0	0.00%
19								
20								
21								
22	Total	4.31		\$5,071		\$5,637	\$566	11.16%
23								
24								
25								
26	Public Fire Protection:							
27								
28	Public Fire Hydrants	58	0.00	0	58.00		0	0.00%
29								

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OPERATION AND MAINTENANCE EXPENSES									
SOURCE OF SUPPLY EXPENSES									
Super & Eng Oper SS	2	\$ 4,351	\$ 1,978	\$ 524	\$ 8	\$ 70	\$ 1,746	\$ 4	\$ 22
Labor & Exp Oper SS	2	0							
Labor & Exp Oper SS	2	(2)	(1)	(0)	(0)	(0)	(1)	(0)	(0)
Purchased Water	1	0	0	0	0	0	0	0	0
TOTAL SS EXPENSE - OPERATION		4,349	1,977	524	8	70	1,745	4	22
Misc Exp Oper SS	2	3,661	1,664	441	7	59	1,469	3	18
Misc Exp Oper SS	2	107	49	13	0	2	43	0	1
Rents Oper SS	2	0	0	0	0	0	0	0	0
Super & Eng Maint SS	2	0	0	0	0	0	0	0	0
Struct & Improve Maint SS	2	0	0	0	0	0	0	0	0
Struct & Improve Maint SS	2	3	1	0	0	0	1	0	0
Collect & Impound Maint SS	2	0	0	0	0	0	0	0	0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0	0
Lake, River & Oth Maint SS	2	0	0	0	0	0	0	0	0
Wells & Springs Maint SS	2	0	0	0	0	0	0	0	0
Wells & Springs Maint SS	2	121	55	15	0	2	49	0	1
Infil Gall & Tunnels Maint SS	2	0	0	0	0	0	0	0	0
Supply Mains Maint SS	2	0	0	0	0	0	0	0	0
Misc Plant Maint SS	2	0	0	0	0	0	0	0	0
Misc Plant Maint SS	2	12,324	5,601	1,485	23	197	4,944	11	62
TOTAL SS EXPENSE - MAINTENANCE		16,216	7,370	1,954	31	259	6,506	15	81
TOTAL SS EXPENSE		20,565	9,347	2,478	39	329	8,251	19	103
POWER AND PUMPING EXPENSES									
Super & Eng Oper P	6	0	0	0	0	0	0	0	0
Fuel for Power Prod	1	0	0	0	0	0	0	0	0
Labor & Exp Oper Pwr Prod	6	990	435	115	2	15	384	6	32
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0	0
Purch Fuel/Power for Pump	1	5,850	2,572	752	13	100	2,358	8	46
Labor & Exp Oper Pump	6	0	0	0	0	0	0	0	0
Labor & Exp Oper Pump	6	0	0	0	0	0	0	0	0
Expenses Transferred	6	0	0	0	0	0	0	0	0
Misc Exp Oper P	6	0	0	0	0	0	0	0	0
Rents Oper P	6	4	2	0	0	0	2	0	0
TOTAL PUMPING EXPENSE - OPERATION		6,844	3,009	868	15	115	2,744	14	78

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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)
Super & Eng Maint P	6	0	0	0	0	0	0	0	0	0.0
Struct & Improve Maint P	6	0	0	0	0	0	0	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	19	8	2	0	0	7	0	1	0.0
TOTAL PUMPING EXPENSES - MAINTENANCE		19	8	2	0	0	7	0	1	0.0
TOTAL PUMPING EXPENSES		6,863	3,017	870	15	116	2,751	14	79	0.0
WATER TREATMENT										0.0
Super & Eng Oper WT	2	20,303	9,228	2,447	39	325	8,146	18	102	0.0
Chemicals	1	6,567	2,888	845	15	112	2,647	9	51	0.0
Labor & Exp Oper WT	2	15,358	6,980	1,851	29	246	6,162	14	77	0.0
Labor & Exp Oper WT	2	3,370	1,532	406	6	54	1,352	3	17	0.0
Misc Exp Oper WT	2	1,181	537	142	2	19	474	1	6	0.0
Misc Exp Oper WT	1	2,625	1,154	338	6	45	1,058	4	20	0.0
Misc Exp Oper WT	2	1,757	799	212	3	28	705	2	9	0.0
Rents Oper WT	2	0	0	0	0	0	0	0	0	0.0
TOTAL WT EXPENSE - OPERATION		51,161	23,117	6,239	101	829	20,543	51	282	0.0
Super & Eng Maint WT	2	17,403	7,910	2,097	33	278	6,982	16	87	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	6,287	2,857	758	12	101	2,522	6	31	0.0
TOTAL WT EXPENSE - MAINTENANCE		23,690	10,767	2,855	45	379	9,504	21	118	0.0
TOTAL WT EXPENSE		74,851	33,884	9,094	146	1,208	30,048	72	400	0.0
TRANSMISSION AND DISTRIBUTION EXPENSES										0.0
Super & Eng Oper TD	11	1,450	321	75	1	10	277	120	647	0.0
Storage Facility Exp	5	0	0	0	0	0	0	0	0	0.0
Storage Facility Exp	5	0	0	0	0	0	0	0	0	0.0
TD Lines Exp	7	12,312	2,727	635	7	85	2,348	1,016	5,494	0.0
TD Lines Exp	7	208	46	11	0	1	40	17	93	0.0
Meter Expense	9	0	0	0	0	0	0	0	0	0.0
Meter Expense	9	0	0	0	0	0	0	0	0	0.0
Customer Install Exp	10	0	0	0	0	0	0	0	0	0.0
Customer Install Exp	10	0	0	0	0	0	0	0	0	0.0
Misc Exp Oper TD	11	0	0	0	0	0	0	0	0	0.0

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	286	63	15	0	2	55	24	128	0.0
Misc Exp Oper TD	11	410	91	21	0	3	78	34	183	0.0
Rents Oper TD	11	3	1	0	0	0	1	0	1	0.0
TOTAL T & D EXPENSE OPERATION		14,669	3,249	757	9	101	2,797	1,210	6,545	0.0
Super & Eng Maint TD	12	1,450	1,123	248	8	27	46	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	0	0	0	0	0	0	0	0	0.0
TD Main Maint TD	7	0	0	0	0	0	0	0	0	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	0	0	0	0	0	0	0	0	0.0
Services Maint TD	10	0	0	0	0	0	0	0	0	0.0
Meters Maint TD	9	0	0	0	0	0	0	0	0	0.0
Meters Maint TD	9	41	32	7	0	1	1	0	0	0.0
Hydrants Maint TD	8	0	0	0	0	0	0	0	0	0.0
Hydrants Maint TD	8	0	0	0	0	0	0	0	0	0.0
Misc Plant Maint TD	12	0	0	0	0	0	0	0	0	0.0
Misc Plant Maint TD	12	14,208	11,004	2,413	77	267	448	0	0	0.0
		0								
		0								
TOTAL T & D EXPENSE - MAINTENANCE		15,699	12,159	2,666	85	295	495	0	0	0.0
										0.0
TOTAL T & D EXPENSE		30,368	15,408	3,423	94	396	3,292	1,210	6,545	0.0
										0.0
CUSTOMER ACCOUNTS										0.0
Supervision CA	13	1,487	1,196	237	6	19	16	13	0	0.0
Meter Reading Exp CA	14	0	0	0	0	0	0	0	0	0.0
Meter Reading Exp CA	14	269	218	43	1	3	3	0	0	0.0
Meter Reading Exp CA	14	0	0	0	0	0	0	0	0	0.0
Cust Rec & Collection CA	13	77	62	12	0	1	1	1	0	0.0
Cust Rec & Collection CA	13	4,343	3,493	691	19	56	47	37	0	0.0
Uncollectible Accts	13	2,059	1,656	328	9	27	22	18	0	0.0
Misc Cust Accts Exp CA	13	60	64	13	0	1	1	1	0	0.0
Misc Cust Accts Exp CA	13	0	0	0	0	0	0	0	0	0.0
Misc Cust Accts Exp CA	13	1,746	1,404	278	8	23	19	15	0	0.0
Cust Serv & Info Exp CA	13	3,517	2,828	560	15	45	38	30	0	0.0
TOTAL CUSTOMER ACCOUNTING EXPENSE		13,578	10,921	2,162	58	175	147	114	0	0.0
										0.0

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	15,388	7,739	1,888	37	231	4,507	165	822	0.0
Other Supplies & Exp AG	15	4	2	0	0	0	1	0	0	0.0
Other Supplies & Exp AG	15	4,266	2,145	523	10	64	1,250	46	226	0.0
Other Supplies & Exp AG	15	7,814	3,930	959	19	117	2,289	84	417	0.0
Mgmt Fees-Coporate/Shared Service Center	15	23,397	11,766	2,871	56	351	6,853	250	1,249	0.0
Mgmt Fees-Call Center	13	12,612	10,143	2,008	54	163	136	108	0	0.0
Mgmt Fees-Belleville Lab	2	16,513	7,505	1,990	31	264	6,625	15	83	0.0
Mgmt Fees- Financial ITS	15	1,228	618	151	3	18	360	13	66	0.0
Mgmt Fees- Customer Billings ITS	13	6,930	5,573	1,103	30	89	75	60	0	0.0
Mgmt Fees-Other ITS	15	78	39	10	0	1	23	1	4	0.0
Outside Services AG	15	0	0	0	0	0	0	0	0	0.0
Outside Services AG	15	4,851	2,440	595	12	73	1,421	52	259	0.0
Property Insurance	15	3,428	1,724	421	8	51	1,004	37	183	0.0
Ins Gen Liab Oper AG	15	2,387	1,200	293	6	36	699	26	127	0.0
Ins Work Comp AG	16	87	29	7	0	1	23	1	5	0.0
Ins Other Oper AG	15	4,483	2,255	550	11	67	1,313	48	239	0.0
Property Insurance	15	0	0	0	0	0	0	0	0	0.0
Injuries & Damages	16	0	0	0	0	0	0	0	0	0.0
Employee Pension & Benefits	16	31,844	13,970	3,563	61	459	10,754	481	2,557	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	828	416	102	2	12	243	9	44	0.0
Rents AG	15	3,465	1,743	425	8	52	1,015	37	185	0.0
Goodwill Advertising Exp	15	0	0	0	0	0	0	0	0	0.0
Misc Exp AG	15	1,866	938	229	4	28	547	20	100	0.0
Research & Development	15	0	0	0	0	0	0	0	0	0.0
TOTAL A & G OPERATIONS		141,449	74,175	17,688	352	2,078	39,136	1,451	6,569	0.0
General Plant Maint AG	15	0	0	0	0	0	0	0	0	0.0
General Plant Maint AG	15	1,431	720	176	3	21	419	15	76	0.0
TOTAL A & G EXPENSE - MAINTENANCE		1,431	720	176	3	21	419	15	76	0.0
TOTAL A & G EXPENSE		142,880	74,894	17,864	356	2,100	39,555	1,466	6,645	0.0
Total Operation & Maintenance Expenses		289,105	147,472	35,891	708	4,324	84,043	2,896	13,772	0.0

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	440	200	53	1	7	177	0	2	0.0
Struct & Imp P	6	326	143	38	1	5	127	2	11	0.0
Struct & Imp WT	2	2,568	1,187	309	5	41	1,030	2	13	0.0
Struct & Imp TD	7	477	106	25	0	3	91	39	213	0.0
Struct & Imp Offices	15	107	54	13	0	2	31	1	6	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	2,832	1,287	341	5	45	1,136	3	14	0.0
Supply Mains	2	1,404	638	169	3	22	563	1	7	0.0
Power Generation Equip Othe	6	40	18	5	0	1	16	0	1	0.0
Pump Equip Electric	6	1,723	757	201	3	27	669	10	56	0.0
Pump Equip Other	6	229	101	27	0	4	89	1	7	0.0
WT Equip Non-Media	2	3,631	1,650	438	7	58	1,457	3	18	0.0
Dist Reservoirs & Standpipe	5	1,093	328	76	1	10	282	62	334	0.0
Elevated Tanks & Standpipes	5	331	99	23	0	3	85	19	101	0.0
Ground Level Facilities	5	0	0	0	0	0	0	0	0	0.0
TD Mains Not Classified by	4	3,538	784	183	2	24	675	292	1,579	0.0
TD Mains 4 & Less	4	417	92	22	0	3	80	34	186	0.0
TD Mains 6 to 8"	4	408	90	21	0	3	78	34	182	0.0
TD Mains 10 to 16"	3	0	0	0	0	0	0	0	0	0.0
TD Mains 18 & Grtr	3	0	0	0	0	0	0	0	0	0.0
Services	10	1,902	1,499	306	9	28	33	28	0	0.0
Meters Bronze Case	9	347	269	59	2	7	11	0	0	0.0
Meters Plastic Case	9	0	0	0	0	0	0	0	0	0.0
Meters Other	9	392	304	67	2	7	12	0	0	0.0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0	0	0.0
Meter Installations	9	1,087	842	185	6	20	34	0	0	0.0
Meter Installation Other	9	0	0	0	0	0	0	0	0	0.0
Hydrants	8	1,005	0	0	0	0	0	0	1,005	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	(153)	(77)	(19)	(0)	(2)	(45)	(2)	(8)	0.0
Comp & Periph Equip	15	486	244	60	1	7	142	5	26	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	766	385	94	2	11	224	8	41	0.0

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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)	
Other Office Equipment	15	133	67	16	0	2	39	1	7	0.0
Trans Equip Lt Duty Trks	15	4,245	2,135	521	10	64	1,243	45	227	0.0
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0	0.0
Trans Equip Autos	15	170	85	21	0	3	50	2	9	0.0
Trans Equip Other	15	0	0	0	0	0	0	0	0	0.0
Stores Equipment	15	246	124	30	1	4	72	3	13	0.0
Tools,Shop,Garage Equip	15	1,493	751	183	4	22	437	16	80	0.0
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0	0.0
Laboratory Equipment	2	754	343	91	1	12	303	1	4	0.0
Laboratory Equip Other	2	0	0	0	0	0	0	0	0	0.0
Power Operated Equipment	15	0	0	0	0	0	0	0	0	0.0
Comm Equip Non-Telephone	15	122	61	15	0	2	36	1	7	0.0
Comm Equip Telephone	15	0	0	0	0	0	0	0	0	0.0
Misc Equipment	15	1,856	933	228	4	28	544	20	99	0.0
Other Tangible Property	15	1,126	566	138	3	17	330	12	60	0.0
Total Depreciation Expense		35,541	16,046	3,937	74	490	10,050	645	4,299	
Amort-Other UP	18	4,176	1,780	436	8	54	1,142	94	662	
Taxes Other Than Income										
Utility Reg Assessment Fee	19	1,262	614	150	3	18	362	17	98	
Property Taxes	18	12,003	5,116	1,253	23	156	3,282	271	1,902	
FUTA	16	140	61	16	0	2	47	2	11	0.0
FICA	16	6,842	3,002	766	13	99	2,311	103	549	0.0
SUTA	16	0	0	0	0	0	0	0	0	0.0
Other Taxes & Licenses	15	526	265	65	1	8	154	6	28	0.0
Gross Receipts Tax	19	0	0	0	0	0	0	0	0	0.0
Total Taxes, Other Than Income		20,773	9,057	2,249	40	283	6,156	399	2,589	0.0
Income Taxes	18	18,166	7,742	1,897	35	236	4,967	411	2,879	
Utility Income Available for Return	18	52,740	22,478	5,506	100	686	14,419	1,192	8,359	
Total Cost of Service		420,501	204,574	49,915	965	6,072	120,777	5,637	32,560	0.0
Less: Other Water Revenues	19	(9,574)	(9,574)	0	0	0	0	0	0	0.0
Revenue Contribution	19	0	0 #	0	0	0	0	0	0	0.0
Total Other Water Revenues		(9,574)	(9,574)	0	0	0	0	0	0	0.0
Total Cost of Service Related to Sales of Water		\$ 410,927	\$ 195,000	\$ 49,915	\$ 965	\$ 6,072	\$ 120,777	\$ 5,637	\$ 32,560	0.0
Reallocation of Public Fire	20		25,470	6,214	120	756			(32,560)	0.0
Total		\$ 410,927	\$ 220,470	\$ 56,130	\$ 1,085	\$ 6,828	\$ 120,777	\$ 5,637	\$ -	0.0
			\$ 9,574						58	0.0
			\$ 230,044							0.0
True - up allowance		\$ 17,642								0.0
		\$ 428,569								0.0

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	
RATE BASE										0.0
Organization	17	\$ 630	\$ 268	\$ 66	\$ 1	\$ 8	\$ 172	\$ 14	\$ 101	0.0
Franchises	17	3,271	1,390	341	6	43	895	75	523	0.0
Land & Ld Rights SS	2	11,981	5,445	1,444	23	192	4,807	11	60	0.0
Land & Ld Rights P	6	0	0	0	0	0	0	0	0	0.0
Land & Ld Rights WT	2	1,468	667	177	3	23	589	1	7	0.0
Land & Ld Rights TD	7	591	131	30	0	4	113	49	264	0.0
Land & Land Rights AG	15	0	0	0	0	0	0	0	0	0.0
Struct & Imp SS	2	20,903	9,500	2,519	40	334	8,388	19	105	0.0
Struct & Imp P	6	36,601	16,086	4,268	66	567	14,209	216	1,190	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	112,087	50,944	13,506	213	1,793	44,969	101	560	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	24,844	5,503	1,282	15	171	4,738	2,050	11,085	0.0
Struct & Imp TD Spec Cross	7	0	0	0	0	0	0	0	0	0.0
Struct & Imp Offices	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 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	90,043	40,925	10,850	171	1,441	36,125	81	450	0.0
Supply Mains	2	54,874	24,940	6,612	104	878	22,015	49	274	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	852	374	99	2	13	331	5	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	74,885	32,912	8,732	135	1,161	29,070	442	2,434	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	8,275	3,637	965	15	128	3,212	49	269	0.0
WT Equip Non-Media	2	114,111	51,863	13,750	217	1,826	45,781	103	571	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	5	0	0	0	0	0	0	0	0	0.0
Dist Reservoirs & Standpipe	5	38,958	11,684	2,723	35	362	10,059	2,201	11,894	0.0
Elevated Tanks & Standpipes	5	17,570	5,269	1,228	16	163	4,537	993	5,364	0.0
Ground Level Facilities	5	0	0	0	0	0	0	0	0	0.0
TD Mains Not Classified by	7	140,892	31,208	7,270	85	972	26,868	11,624	62,866	0.0

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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)
TD Mains 4 & Less	4	31,841	7,053	1,643	19	220	6,072	2,627	14,207	0.0
TD Mains 6 to 8"	4	30,785	6,819	1,589	18	212	5,871	2,540	13,736	0.0
TD Mains 10 to 16"	3	0	0	0	0	0	0	0	0	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 1929-58 (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	0	0	0	0	0	0	0	0	0.0
Services	10	87,478	68,933	14,075	394	1,286	1,513	1,277	0	0.0
Meters Bronze Case	9	13,821	10,704	2,347	75	260	435	0	0	0.0
Meters Plastic Case	9	0	0	0	0	0	0	0	0	0.0
Meters Other	9	208	161	35	1	4	7	0	0	0.0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0	0	0.0
Meter Installations	9	44,619	34,557	7,576	241	839	1,405	0	0	0.0
Meter Installation Other	9	0	0	0	0	0	0	0	0	0.0
Hydrants	8	48,168	0	0	0	0	0	0	48,168	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	4,619	2,323	567	11	69	1,353	49	247	0.0
Office Furniture & Equip	15	(11,418)	(5,742)	(1,401)	(27)	(171)	(3,344)	(122)	(610)	0.0
Comp & Periph Equip	15	1,876	943	230	5	28	549	20	100	0.0
Computer Software	15	14,251	7,167	1,749	34	214	4,174	152	761	0.0
Comp Software Personal	15	400	201	49	1	6	117	4	21	0.0
Data Handling Equipment	15	16,824	8,461	2,064	40	252	4,928	180	898	0.0
Other Office Equipment	15	2,947	1,482	362	7	44	863	32	157	0.0
Trans Equip Lt Duty Trks	15	31,808	15,996	3,903	76	477	9,317	340	1,699	0.0
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0	0.0
Trans Equip Autos	15	599	301	73	1	9	175	6	32	0.0
Trans Equip Other	15	(12,484)	(6,278)	(1,532)	(30)	(187)	(3,657)	(134)	(667)	0.0
Stores Equipment	15	10,416	5,238	1,278	25	156	3,051	111	556	0.0
Tools,Shop,Garage Equip	15	25,108	12,627	3,081	60	377	7,354	269	1,341	0.0
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0	0.0
Laboratory Equipment	2	17,017	7,734	2,051	32	272	6,827	15	85	0.0
Laboratory Equip Other	2	0	0	0	0	0	0	0	0	0.0
Power Operated Equipment	15	0	0	0	0	0	0	0	0	0.0
Comm Equip Non-Telephone	15	2,401	1,207	295	6	36	703	26	128	0.0
Comm Equip Telephone	15	(2,965)	(1,491)	(364)	(7)	(44)	(868)	(32)	(158)	0.0
Misc Equipment	15	11,617	5,842	1,425	28	174	3,403	124	620	0.0
Other Tangible Property	17	23,187	9,850	2,416	44	301	6,342	529	3,705	0.0
Total Utility Plant in Service		1,145,959	486,835	119,373	2,200	14,915	313,467	26,096	183,072	0.0
Other Rate Base Items										0.0
Add:										
Other Utility Plant Adjustments	17	0	0	0	0	0	0	0	0	0.0
Cash Working Capital	15	8,301	4,175	1,019	20	125	2,431	89	443	0.0
Materials and Supplies	15	5,287	2,659	649	13	79	1,549	57	282	0.0

Schedule C-8-SBRU

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	
								(9)	(10)	
Prepayments	15	5	3	1	0	0	1	0	0	0.0
OPEB's Contributed to External Fund	16	21,574	9,465	2,414	41	311	7,286	326	1,732	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	(163,562)	(69,481)	(17,043)	(311)	(2,126)	(44,734)	(3,729)	(26,137)	0.0
Deferred Income Taxes	17	(216,918)	(92,147)	(22,603)	(412)	(2,820)	(59,327)	(4,946)	(34,663)	0.0
Pensions	16	(27,349)	(11,998)	(3,060)	(52)	(394)	(9,236)	(413)	(2,196)	0.0
Total Other Rate Base Elements		(372,662)	(157,325)	(38,624)	(701)	(4,826)	(102,030)	(8,617)	(60,539)	0.0
Total Original Cost Measure of Value		\$ 773,297	\$ 329,509	\$ 80,749	\$ 1,499	\$ 10,080	\$ 211,437	\$ 17,480	\$ 122,534	0.0

T&D OP BASIS FOR FACTOR 11	12,520	2,773	646	8	86	2,388	1,033	5,586	0.0
FACTOR 11		0.2215	0.0516	0.0006	0.0069	0.1907	0.0825	0.4462	1.0000
T&D Mnt BASIS FOR FACTOR 12	41	32	7	0	1	1	0	0	0.0
FACTOR 12		0.7745	0.1698	0.0054	0.0188	0.0315	0.0000	0.0000	1.0000
A&G BASIS FOR FACTOR 15	131,183	65,963	18,093	318	1,967	38,425	1,408	7,009	0.0
FACTOR 15		0.5029	0.1227	0.0024	0.0150	0.2929	0.0107	0.0534	1.0000
LABOR BASIS FOR FACTOR 16	90,649	39,762	10,140	171	1,308	30,614	1,372	7,282	0.0
FACTOR 16		0.4387	0.1119	0.0019	0.0144	0.3377	0.0151	0.0803	1.0000
UPIS BASIS FOR FACTOR 17	1,118,871	475,328	116,551	2,149	14,563	306,058	25,479	178,744	0.0
FACTOR 17		0.4248	0.1042	0.0019	0.0130	0.2735	0.0228	0.1598	1.0000
RATE BASE BASIS FOR FACTOR 18	773,297	329,509	80,749	1,499	10,090	211,437	17,480	122,534	0.0
FACTOR 18		0.4262	0.1044	0.0019	0.0130	0.2734	0.0226	0.1585	1.0000
TOTAL COS BASIS FOR FACTOR 19	418,411	203,544	49,664	960	6,042	120,172	5,611	32,418	0.0
FACTOR 19		0.4865	0.1187	0.0023	0.0144	0.2872	0.0134	0.0775	1.0000
COS w/o Fire Factor 20	261,527	204,574	49,915	965	6,072				0
FACTOR 20		0.7622	0.1909	0.0037	0.0232				1.0000

Table of Factors - Table Name "FACTORS"

	2	4	6	8	10	12	14	20
	Residential	Commercial	Industrial	Public	Resale	Private Fire	Public Fire	Total
1	0.4397	0.1286	0.0023	0.0171	0.4031	0.0014	0.0078	1.0000
2	0.4545	0.1205	0.0019	0.0160	0.4012	0.0009	0.0050	1.0000
3	0.3808	0.1010	0.0015	0.0134	0.3361	0.0261	0.1411	1.0000
4	0.2215	0.0516	0.0006	0.0069	0.1907	0.0825	0.4462	1.0000
5	0.2999	0.0699	0.0009	0.0093	0.2582	0.0565	0.3053	1.0000
6	0.4395	0.1166	0.0018	0.0155	0.3882	0.0059	0.0325	1.0000
7	0.2215	0.0516	0.0006	0.0069	0.1907	0.0825	0.4462	1.0000
8	-	-	-	-	-	-	1.0000	1.0000
9	0.7745	0.1698	0.0054	0.0188	0.0315	-	-	1.0000
10	0.7880	0.1609	0.0045	0.0147	0.0173	0.0146	-	1.0000
11	0.2215	0.0516	0.0006	0.0069	0.1907	0.0825	0.4462	1.0000
12	0.7745	0.1698	0.0054	0.0188	0.0315	-	-	1.0000
13	0.8042	0.1592	0.0043	0.0129	0.0108	0.0086	-	1.0000
14	0.8113	0.1606	0.0043	0.0130	0.0108	-	-	1.0000
15	0.5029	0.1227	0.0024	0.0150	0.2929	0.0107	0.0534	1.0000
16	0.4387	0.1119	0.0019	0.0144	0.3377	0.0151	0.0803	1.0000

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	
			17 0.4248	0.1042	0.0019	0.0130	0.2735	0.0228	0.1598	1.0000
			18 0.4262	0.1044	0.0019	0.0130	0.2734	0.0226	0.1585	1.0000
			19 0.4865	0.1187	0.0023	0.0144	0.2872	0.0134	0.0775	1.0000
			20 0.7622	0.1909	0.0037	0.0232		-	-	1.0000

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	4,351	2,782	1,544	0	0	0	26
Labor & Exp Oper SS	2	0	0	0	0	0	0	0
Labor & Exp Oper SS	2	(2)	(1)	(1)	0	0	0	(0)
Purchased Water	1	0	0	0	0	0	0	0
TOTAL SS EXPENSE - OPERATION		4,349	2,780	1,543	0	0	0	26
Misc Exp Oper SS	2	3,661	2,340	1,299	0	0	0	22
Misc Exp Oper SS	2	107	68	38	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	3	2	1	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	121	77	43	0	0	0	1
Infil Gali & 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	12,324	7,879	4,373	0	0	0	73
TOTAL SS EXPENSE - MAINTENANCE		16,216	10,367	5,753	0	0	0	96
TOTAL SS EXPENSE		20,565	13,147	7,296	0	0	0	121
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	990	611	339	2	0	0	38
Labor & Exp Oper Pwr Prod	6	0	0	0	0	0	0	0
Purch Fuel/Power for Pump	1	5,850	5,796	0	0	0	0	54
Labor & Exp Oper Pump	6	0	0	0	0	0	0	0
Labor & Exp Oper Pump	6	0	0	0	0	0	0	0
Expenses Transferred	6	0	0	0	0	0	0	0
Misc Exp Oper P	6	0	0	0	0	0	0	0
Rents Oper P	6	4	2	1	0	0	0	0
TOTAL PUMPING EXPENSE - OPERATION		6,844	6,410	340	2	0	0	92

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	0	0	0	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	19	12	7	0	0	0	0	1
TOTAL PUMPING EXPENSES - MAINTENANCE		19	12	7	0	0	0	0	1
TOTAL PUMPING EXPENSES		6,663	6,422	347	2	0	0	0	93
WATER TREATMENT									
Super & Eng Oper WT	2	20,303	12,980	7,204	0	0	0	0	120
Chemicals	1	6,567	6,507	0	0	0	0	0	60
Labor & Exp Oper WT	2	15,358	9,818	5,449	0	0	0	0	91
Labor & Exp Oper WT	2	3,370	2,154	1,196	0	0	0	0	20
Misc Exp Oper WT	2	1,181	755	419	0	0	0	0	7
Misc Exp Oper WT	1	2,625	2,601	0	0	0	0	0	24
Misc Exp Oper WT	2	1,757	1,123	623	0	0	0	0	10
Rents Oper WT	2	0	0	0	0	0	0	0	0
TOTAL WT EXPENSE - OPERATION		51,161	35,938	14,891	0	0	0	0	332
Super & Eng Maint WT	2	17,403	11,126	6,175	0	0	0	0	103
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	6,287	4,019	2,231	0	0	0	0	37
TOTAL WT EXPENSE - MAINTENANCE		23,690	15,145	8,405	0	0	0	0	140
TOTAL WT EXPENSE		74,851	51,083	23,296	0	0	0	0	472
TRANSMISSION AND DISTRIBUTION EXPENSES									
Super & Eng Oper TD	11	1,450	211	0	473	0	0	0	767
Storage Facility Exp	5	0	0	0	0	0	0	0	0
Storage Facility Exp	5	0	0	0	0	0	0	0	0
TD Lines Exp	7	12,312	1,788	0	4,015	0	0	0	8,509
TD Lines Exp	7	208	30	0	68	0	0	0	110
Meter Expense	9	0	0	0	0	0	0	0	0
Meter Expense	9	0	0	0	0	0	0	0	0
Customer Install Exp	10	0	0	0	0	0	0	0	0
Customer Install Exp	10	0	0	0	0	0	0	0	0
Misc Exp Oper TD	11	0	0	0	0	0	0	0	0

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	288	42	0	93	0	0	0	151
Misc Exp Oper TD	11	410	60	0	134	0	0	0	217
Rents Oper TD	11	3	0	0	1	0	0	0	2
TOTAL T & D EXPENSE OPERATION		14,669	2,130	0	4,784	0	0	0	7,756
Super & Eng Maint TD	12	1,450	0	0	0	1,450	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	0	0	0	0	0	0	0	0
TD Main Maint TD	7	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0
Services Maint TD	10	0	0	0	0	0	0	0	0
Meters Maint TD	9	0	0	0	0	0	0	0	0
Meters Maint TD	9	41	0	0	0	41	0	0	0
Hydrants Maint TD	8	0	0	0	0	0	0	0	0
Hydrants Maint TD	8	0	0	0	0	0	0	0	0
Misc Plant Maint TD	12	0	0	0	0	0	0	0	0
Mat and Sup Maint TD	12	14,208	0	0	0	14,208	0	0	0
Misc Maint TD	0	0	0	0	0	0	0	0	0
Amort Def Maint TD	0	0	0	0	0	0	0	0	0
TOTAL T & D EXPENSE - MAINTENANCE		15,699	0	0	0	15,699	0	0	0
TOTAL T & D EXPENSE		30,368	2,130	0	4,784	15,699	0	0	7,756
CUSTOMER ACCOUNTS									
Supervision CA	13	1,487	0	0	0	0	0	1,474	13
Meter Reading Exp CA	14	0	0	0	0	0	0	0	0
Meter Reading Exp CA	14	269	0	0	0	0	0	269	0
Meter Reading Exp CA	14	0	0	0	0	0	0	0	0
Cust Rec & Collection CA	13	77	0	0	0	0	0	76	1
Cust Rec & Collection CA	13	4,343	0	0	0	0	0	4,306	37
Uncollectible Accts	13	2,059	0	0	0	0	0	2,041	18
Misc Cust Accts Exp CA	13	80	0	0	0	0	0	79	1
Misc Cust Accts Exp CA	13	0	0	0	0	0	0	0	0
Misc Cust Accts Exp CA	13	1,746	0	0	0	0	0	1,731	15
Cust Serv & Info Exp CA	13	3,517	0	0	0	0	0	3,487	30
TOTAL CUSTOMER ACCOUNTING EXPENSE		13,578	0	0	0	0	0	13,464	114

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	15,388	6,789	3,628	562	1,842	0	1,579	988
Other Supplies & Exp AG	15	4	2	1	0	0	0	0	0
Other Supplies & Exp AG	15	4,266	1,882	1,008	156	511	0	438	274
Other Supplies & Exp AG	15	7,814	3,448	1,843	285	935	0	802	502
Mgmt Fees-Corporate/Shared Service Center	15	23,397	10,323	5,517	854	2,801	0	2,401	1,502
Mgmt Fees-Call Center	13	12,612	0	0	0	0	0	12,504	108
Mgmt Fees-Belleville Lab	2	18,513	10,557	5,859	0	0	0	0	97
Mgmt Fees- Financial ITS	15	1,228	542	290	45	147	0	126	79
Mgmt Fees- Customer Billings ITS	13	6,930	0	0	0	0	0	6,870	60
Mgmt Fees-Other ITS	15	78	34	18	3	9	0	8	5
Outside Services AG	15	0	0	0	0	0	0	0	0
Outside Services AG	15	4,851	2,140	1,144	177	581	0	498	311
Property Insurance	15	3,428	1,512	808	125	410	0	352	220
Ins Gen Liab Oper AG	15	2,387	1,053	563	87	286	0	245	153
Ins Work Comp AG	16	67	34	18	4	2	0	2	6
Ins Other Oper AG	15	4,483	1,978	1,057	164	537	0	460	288
Property Insurance	15	0	0	0	0	0	0	0	0
Injuries & Damages	16	0	0	0	0	0	0	0	0
Employee Pension & Benefits	16	31,844	16,196	8,550	1,774	1,156	0	1,127	3,041
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 Commision Exp	15	828	365	195	30	99	0	85	53
Rents AG	15	3,465	1,529	817	126	415	0	356	222
Goodwill Advertising Exp	15	0	0	0	0	0	0	0	0
Misc Exp AG	15	1,866	823	440	68	223	0	191	120
Research & Development	15	0	0	0	0	0	0	0	0
TOTAL A & G OPERATIONS		141,449	59,207	31,754	4,460	9,954	0	28,043	8,031
General Plant Maint AG	15	0	0	0	0	0	0	0	0
General Plant Maint AG	15	1,431	631	337	52	171	0	147	92
TOTAL A & G EXPENSE - MAINTENANCE		1,431	631	337	52	171	0	147	92
TOTAL A & G EXPENSE		142,880	59,839	32,092	4,512	10,126	0	28,190	8,122
Total Operation & Maintenance Expenses		289,105	132,621	63,031	9,297	25,825	0	41,653	16,678

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	440	281	156	0	0	0	0	3
Struct & Imp P	6	326	201	112	1	0	0	0	13
Struct & Imp WT	2	2,568	1,642	911	0	0	0	0	15
Struct & Imp TD	7	477	69	0	156	0	0	0	252
Struct & Imp Offices	15	107	47	25	4	13	0	11	7
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	2,832	1,810	1,005	0	0	0	0	17
Supply Mains	2	1,404	898	498	0	0	0	0	8
Power Generation Equip Othe	6	40	25	14	0	0	0	0	2
Pump Equip Electric	6	1,723	1,064	590	3	0	0	0	66
Pump Equip Other	6	229	141	78	0	0	0	0	9
WT Equip Non-Media	2	3,631	2,321	1,288	0	0	0	0	21
Dist Reservoirs & Standpipe	5	1,093	215	0	483	0	0	0	395
Elevated Tanks & Standpipes	5	331	65	0	146	0	0	0	120
Ground Level Facilities	5	0	0	0	0	0	0	0	0
TD Mains Not Classified by	4	3,638	514	0	1,154	0	0	0	1,871
TD Mains 4 & Less	4	417	61	0	136	0	0	0	220
TD Mains 6 to 8"	4	408	59	0	133	0	0	0	216
TD Mains 10 to 16"	3	0	0	0	0	0	0	0	0
TD Mains 18 & Grtr	3	0	0	0	0	0	0	0	0
Services	10	1,902	0	0	0	0	1,874	0	28
Meters Bronze Case	9	347	0	0	0	347	0	0	0
Meters Plastic Case	9	0	0	0	0	0	0	0	0
Meters Other	9	392	0	0	0	392	0	0	0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0	0
Meter Installations	9	1,087	0	0	0	1,087	0	0	0
Meter Installation Other	9	0	0	0	0	0	0	0	0
Hydrants	8	1,005	0	0	0	0	0	0	1,005
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	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	(153)	(68)	(36)	(6)	(18)	0	(16)	(10)
Comp & Periph Equip	15	486	214	115	18	58	0	50	31
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	766	338	181	28	92	0	79	49

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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
Other Office Equipment	15	133	59	31	5	16	0	14	9
Trans Equip Lt Duty Trks	15	4,245	1,873	1,001	155	508	0	438	273
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0	0
Trans Equip Autos	15	170	75	40	6	20	0	17	11
Trans Equip Other	15	0	0	0	0	0	0	0	0
Stores Equipment	15	246	109	58	9	29	0	25	16
Tools,Shop,Garage Equip	15	1,483	659	352	54	179	0	153	96
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0	0
Laboratory Equipment	2	754	482	268	0	0	0	0	4
Laboratory Equip Other	2	0	0	0	0	0	0	0	0
Power Operated Equipment	15	0	0	0	0	0	0	0	0
Comm Equip Non-Telephone	15	122	54	29	4	15	0	13	8
Comm Equip Telephone	15	0	0	0	0	0	0	0	0
Misc Equipment	15	1,856	819	438	68	222	0	190	119
Other Tangible Property	15	1,126	497	266	41	135	0	116	72
Total Depreciation Expense		35,541	14,524	7,418	2,598	3,094	1,874	1,087	4,945
Amort-Other UP	18	4,176	1,610	799	383	287	319	43	756
Taxes Other Than Income									
Utility Reg Assessment Fee	19	1,282	555	268	61	105	26	132	115
Property Taxes	18	12,003	4,627	2,296	1,099	767	916	124	2,174
FUTA	16	140	71	38	8	5	0	5	13
FICA	16	6,842	3,480	1,837	381	248	0	242	653
SUTA	16	0	0	0	0	0	0	0	0
Other Taxes & Licenses	15	526	232	124	19	63	0	54	34
Gross Receipts Tax	19	0	0	0	0	0	0	0	0
Total Taxes, Other Than Income		20,773	8,966	4,563	1,569	1,188	942	557	2,989
Income Taxes	18	18,166	7,003	3,475	1,664	1,161	1,386	187	3,290
Utility Income Available for Return	18	52,740	20,331	10,089	4,831	3,370	4,024	543	9,551
Total Cost of Service		420,501	185,055	89,375	20,341	34,905	8,545	44,071	38,210
Less: Other Water Revenues	19	(9,574)	(9,574)	0	0	0	0	0	0
Revenue Shift	19	0	0	0	0	0	0	0	0
Total Other Water Revenues		(9,574)	(9,574)	0	0	0	0	0	0
Total Cost of Service Related to Sales of Water		410,927	175,481	89,375	20,341	34,905	8,545	44,071	38,210
Reallocation of Public Fire	20	0	20,441	9,872	2,247	0	0	0	(32,560)
Total		\$ 410,927	\$ 195,922	\$ 99,247	\$ 22,588	\$ 34,905	\$ 8,545	\$ 44,071	\$ 5,649
			38,938			496	472	5,580	
			5.032			70.43	18.12		
						5.87	1.51	7.90	
								15.28	

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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	630	243	120	58	40	49	115
Franchises	17	3,271	1,261	625	302	205	252	597
Land & Ld Rights SS	2	11,981	7,659	4,251	0	0	0	71
Land & Ld Rights P	6	0	0	0	0	0	0	0
Land & Ld Rights WT	2	1,468	938	521	0	0	0	9
Land & Ld Rights TD	7	591	86	0	193	0	0	312
Land & Land Rights AG	15	0	0	0	0	0	0	0
Struct & Imp SS	2	20,903	13,363	7,416	0	0	0	123
Struct & Imp P	6	36,601	22,604	12,529	63	0	0	1,406
Struct & Imp Pumps (STL)	6	0	0	0	0	0	0	0
Struct & Imp Pump Boosters	6	0	0	0	0	0	0	0
Struct & Imp WT	2	112,087	71,657	39,768	0	0	0	661
Struct & Imp WT Nth Plt (ST)	2	0	0	0	0	0	0	0
Struct & Imp WT Ctrl Plt 1	2	0	0	0	0	0	0	0
Struct & Imp WT Ctrl Plt 3	2	0	0	0	0	0	0	0
Struct & Imp WT Sth Plt (ST)	2	0	0	0	0	0	0	0
Struct & Imp WT Meramec (ST)	2	0	0	0	0	0	0	0
Struct & Imp TD	7	24,844	3,607	0	8,102	0	0	13,135
Struct & Imp TD Spec Cross	7	0	0	0	0	0	0	0
Struct & Imp Offices	15	0	0	0	0	0	0	0
Struct & Imp Leasehold	15	0	0	0	0	0	0	0
Struct & Imp Leasehold	15	0	0	0	0	0	0	0
Struct & Imp Store,Shop,Gar	15	0	0	0	0	0	0	0
Struct & Imp Misc	15	0	0	0	0	0	0	0
Collect & Impounding	1	0	0	0	0	0	0	0
Lake, River & Other Intakes	2	0	0	0	0	0	0	0
Wells & Springs	2	90,043	57,584	31,947	0	0	0	531
Supply Mains	2	54,874	35,081	19,469	0	0	0	324
Supply Mains Nth Plt (STL)	2	0	0	0	0	0	0	0
Supply Mains Ctrl Plt (STL)	2	0	0	0	0	0	0	0
Supply Mains Sth Plt (STL)	2	0	0	0	0	0	0	0
Supply Mains Meramec Plt (S)	2	0	0	0	0	0	0	0
Power Generation Equip Othe	6	852	526	292	1	0	0	33
Boiler Plant Equipment P	6	0	0	0	0	0	0	0
Pump Equip Steam	6	0	0	0	0	0	0	0
Pump Equip Electric	6	74,885	46,247	25,633	129	0	0	2,876
Pump Equip Elec Pre46 (STL)	6	0	0	0	0	0	0	0
Pump Equip Elec Post46 (STL)	6	0	0	0	0	0	0	0
Pump Equip Elec Boosters Po	6	0	0	0	0	0	0	0
Pump Equip Diesel	6	0	0	0	0	0	0	0
Pump Equip Diesel Stratmanl	6	0	0	0	0	0	0	0
Pump Equip Diesel Ctrl Plt	6	0	0	0	0	0	0	0
Pump Equip Hydraulic	6	0	0	0	0	0	0	0
Pump Equip Other	6	8,275	5,110	2,833	14	0	0	318
WT Equip Non-Media	2	114,111	72,951	40,487	0	0	0	673
WT Equip Non-Med North (STL)	2	0	0	0	0	0	0	0
WT Equip Non Media Ctrl 1 &	2	0	0	0	0	0	0	0
WT Equip Non Media Ctrl 3 (	2	0	0	0	0	0	0	0
WT Equip Non Media Sth (STL)	2	0	0	0	0	0	0	0
WT Equip Non Media Mer (STL)	2	0	0	0	0	0	0	0
WT Equip Filter Media	5	0	0	0	0	0	0	0
Dist Reservoirs & Standpipe	5	38,958	7,659	0	17,204	0	0	14,095
Elevated Tanks & Standpipes	5	17,570	3,454	0	7,759	0	0	6,357
Ground Level Facilities	5	0	0	0	0	0	0	0
TD Mains Not Classified by	7	140,892	20,458	0	45,945	0	0	74,490

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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
TD Mains 4 & Less	4	31,841	4,623	0	10,383	0	0	16,834
TD Mains 6 to 8"	4	30,785	4,470	0	10,039	0	0	16,276
TD Mains 10 to 16"	3	0	0	0	0	0	0	0
TD Mains 18 & Grtr	3	0	0	0	0	0	0	0
TD Mains AC 4 (STL)	4	0	0	0	0	0	0	0
TD Mains CI <10 1900-28 (S*	4	0	0	0	0	0	0	0
TD Mains CI <10 1929-56 (S*	4	0	0	0	0	0	0	0
TD Mains CI <10 1957-93 (S*	4	0	0	0	0	0	0	0
TD Mains CI 12 (STL)	3	0	0	0	0	0	0	0
TD Mains CI 16 (STL)	3	0	0	0	0	0	0	0
TD Mains DI 6-8 (STL)	4	0	0	0	0	0	0	0
TD Mains DI 12 (STL)	3	0	0	0	0	0	0	0
TD Mains DI 16 & >(STL)	3	0	0	0	0	0	0	0
TD Mains Galve 1 (STL)	4	0	0	0	0	0	0	0
TD Mains LJ 20 (STL)	3	0	0	0	0	0	0	0
Fire Mains	8	0	0	0	0	0	0	0
Services	10	87,478	0	0	0	86,201	0	1,277
Meters Bronze Case	9	13,821	0	0	13,821	0	0	0
Meters Plastic Case	9	0	0	0	0	0	0	0
Meters Other	9	208	0	0	208	0	0	0
Meters Other-Rem Rdr Unts	9	0	0	0	0	0	0	0
Meter Installations	9	44,619	0	0	44,619	0	0	0
Meter Installation Other	9	0	0	0	0	0	0	0
Hydrants	8	48,168	0	0	0	0	0	48,168
Other P/E Intangible	15	0	0	0	0	0	0	0
Other P/E WT Res Hand Equip	2	0	0	0	0	0	0	0
Other P/E TD	7	0	0	0	0	0	0	0
Other P/E CPS	15	4,619	2,038	1,069	553	0	474	297
Office Furniture & Equip	15	(11,418)	(5,038)	(2,692)	(417)	0	(1,171)	(733)
Comp & Periph Equip	15	1,876	828	442	68	0	192	120
Computer Software	15	14,251	6,288	3,360	520	1,708	1,462	915
Comp Software Personal	15	400	176	94	15	48	41	26
Data Handling Equipment	15	16,824	7,423	3,967	614	2,014	1,726	1,080
Other Office Equipment	15	2,947	1,300	695	108	353	302	189
Trans Equip Lt Duty Trks	15	31,808	14,034	7,500	1,161	3,807	3,264	2,042
Trans Equip Hvy Duty Trks	15	0	0	0	0	0	0	0
Trans Equip Autos	15	599	264	141	22	72	61	38
Trans Equip Other	15	(12,484)	(5,508)	(2,944)	(456)	(1,494)	(1,281)	(801)
Stores Equipment	15	10,416	4,596	2,456	380	1,247	1,069	669
Tools,Shop,Garage Equip	15	25,108	11,078	5,920	916	3,005	2,576	1,612
Tools,Shop,Garage Equip Oth	15	0	0	0	0	0	0	0
Laboratory Equipment	2	17,017	10,879	6,038	0	0	0	100
Laboratory Equip Other	2	0	0	0	0	0	0	0
Power Operated Equipment	15	0	0	0	0	0	0	0
Comm Equip Non-Telephone	15	2,401	1,059	566	88	287	246	154
Comm Equip Telephone	15	(2,965)	(1,308)	(699)	(108)	(355)	(304)	(190)
Misc Equipment	15	11,617	5,125	2,739	424	1,391	1,192	746
Other Tangible Property	17	23,187	8,939	4,431	2,142	1,454	204	4,232
Total Utility Plant in Service		1,145,959	441,736	218,996	105,840	71,837	88,287	209,176
Other Rate Base Items								
Add:								
Other Utility Plant Adjustments	17	0	0	0	0	0	0	0
Cash Working Capital	15	8,301	3,662	1,957	303	994	852	533
Materials and Supplies	15	5,287	2,333	1,247	193	633	542	339

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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
Prepayments	15	5	2	1	0	1	0	1	0
OPEB's Contributed to External Fund	16	21,574	10,973	5,793	1,202	783	0	764	2,060
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	(163,562)	(63,053)	(31,257)	(15,113)	(10,255)	(12,594)	(1,439)	(29,850)
Deferred Income Taxes	17	(216,918)	(83,822)	(41,453)	(20,043)	(13,601)	(18,703)	(1,909)	(39,588)
Pensions	16	(27,349)	(13,910)	(7,343)	(1,523)	(993)	0	(968)	(2,612)
Total Other Rate Base Elements		(372,662)	(143,815)	(71,055)	(34,982)	(22,439)	(29,297)	(2,158)	(69,116)
Total Original Cost Measure of Value		\$ 773,297	\$ 298,121	\$ 147,941	\$ 70,858	\$ 49,399	\$ 58,990	\$ 7,930	\$ 140,059

T&D OP BASIS FOR FACTOR 11	12,520	1,818	0	4,083	0	0	0	6,619
FACTOR 11		0.1452	0.0000	0.3261	0.0000	0.0000	0.0000	0.5287
T&D Mnt BASIS FOR FACTOR 12	41	0	0	0	41	0	0	0
FACTOR 12		0.0000	0.0000	0.0000	1.0000	0.0000	0.0000	0.0000
A&G BASIS FOR FACTOR 15	131,183	57,879	30,939	4,785	15,699	0	13,464	8,418
FACTOR 15		0.4412	0.2358	0.0365	0.1197	0.0000	0.1026	0.0642
LABOR BASIS FOR FACTOR 16	90,849	46,104	24,338	5,051	3,292	0	3,209	8,655
FACTOR 16		0.5086	0.2685	0.0557	0.0363	0.0000	0.0354	0.0955
UPIS BASIS FOR FACTOR 17	1,118,871	431,293	213,820	103,337	70,139	86,201	9,849	204,232
FACTOR 17		0.3855	0.1911	0.0924	0.0627	0.0770	0.0088	0.1825
RATE BASE BASIS FOR FACTOR 18	773,297	298,121	147,941	70,858	49,399	58,990	7,930	140,059
FACTOR 18		0.3856	0.1913	0.0916	0.0639	0.0763	0.0103	0.1811
TOTAL COS BASIS FOR FACTOR 19	418,411	184,134	88,912	20,250	34,701	8,519	43,854	38,042
FACTOR 19		0.4401	0.2125	0.0484	0.0829	0.0204	0.1048	0.0909
TOTAL COS BASIS FOR FACTOR 20	294,771	185,055	89,375	20,341				
FACTOR 20		0.6278	0.3032	0.0690				

	2	4	6	8	10	12	14
	Base	Max Day	Max Hour	Meters	Services	Billing & Collecting	Fire Service
1	0.9908	-	-	-	-	-	0.0092
2	0.6393	0.3548	-	-	-	-	0.0059
3	0.5355	0.2973	-	-	-	-	0.1672
4	0.1452	-	0.3261	-	-	-	0.5287
5	0.1966	-	0.4416	-	-	-	0.3618
6	0.6176	0.3423	0.0017	-	-	-	0.0384
7	0.1452	-	0.3261	-	-	-	0.5287
8	-	-	-	-	-	-	1.0000
9	-	-	-	1.0000	-	-	-
10	-	-	-	-	0.9854	-	0.0146
11	0.1452	-	0.3261	-	-	-	0.5287
12	-	-	-	1.0000	-	-	-
13	-	-	-	-	-	0.9914	0.0086
14	-	-	-	-	-	1.0000	-
15	0.4412	0.2358	0.0365	0.1197	-	0.1026	0.0642
16	0.5086	0.2685	0.0557	0.0363	-	0.0354	0.0955

Schedule C-19-SBRU

MISSOURI-AMERICAN WATER COMPANY

BRUNSWICK 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
17	0.3855	0.1911	0.0924	0.0627	0.0770	0.0088	0.1825
18	0.3855	0.1913	0.0916	0.0639	0.0763	0.0103	0.1811
19	0.4401	0.2125	0.0484	0.0829	0.0204	0.1048	0.0909
20	0.6278	0.3032	0.0690	-	-	-	-

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

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS

FACTOR 1.

ALLOCATION OF COSTS THAT VARY WITH THE AMOUNT 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	47.3	0.4397
Commercial	13.8	0.1286
Industrial	0.3	0.0023
Other Public Authority	1.8	0.0171
Sales for Resale	43.4	0.4031
Private Fire Protection	0.2	0.0014
Public Fire Protection	0.8	0.0078
Total	107.7	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 0.6452	Allocation Factor (4)	Weighted Factor (5)=(4)x 0.3548	
Residential	0.4397	0.2837	0.4812	0.1708	0.4545
Commercial	0.1286	0.0830	0.1058	0.0375	0.1205
Industrial	0.0023	0.0015	0.0010	0.0004	0.0019
Other Public Authority	0.0171	0.0110	0.0142	0.0050	0.0160
Sales for Resale	0.4031	0.2601	0.3978	0.1411	0.4012
Private Fire Protection	0.0014	0.0009			0.0009
Public Fire Protection	0.0078	0.0050			0.0050
Total	1.0000	0.6452	1.0000	0.3548	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	Average Daily Consumption, Thousand Gal.	Maximum Day Extra Capacity		
		Factor*	Rate of Flow, Thousand Gal. Per Day (4)=(2)x(3)	Allocation Factor (5)
(1)	(2)	(3)	(4)	(5)
Residential	47.3	1.00	47.3	0.4812
Commercial	13.8	0.75	10.4	0.1058
Industrial	0.3	0.50	0.1	0.0010
Other Public Authority	1.8	0.75	1.4	0.0142
Sales for Resale	43.4	0.90	39.1	0.3978
Total	106.7		98.3	1.0000

The weighting of the factors is based on the maximum day ratio of 1.55, 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	0.6452
Maximum Day Extra Capacity	0.55	0.3548
Total	1.55	1.0000

* Ratio of maximum day to average day minus 1.0.

**MISSOURI-AMERICAN WATER COMPANY
BRUNSWICK 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.**

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 0.5405	(4)	(5)=(4) X 0.2973	(6)	(7)=(6) X 0.1622	(8)=(3)+(5)+(7)
Residential	0.4397	0.2377	0.4812	0.1430			0.3808
Commercial	0.1286	0.0695	0.1058	0.0315			0.1010
Industrial	0.0023	0.0012	0.0010	0.0003			0.0015
Other Public Authority	0.0171	0.0092	0.0142	0.0042			0.0134
Sales for Resale	0.4031	0.2179	0.3978	0.1183			0.3361
Private Fire Protection	0.0014	0.0008			0.1560	0.0253	0.0261
Public Fire Protection	0.0078	0.0042			0.8440	0.1369	0.1411
Total	1.0000	0.5405	1.0000	0.2973	1.0000	0.1622	1.0000

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

FACTOR 3. Continued

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

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 1.55. The system demand for fire protection is 300 Gallons per minute for 2 hours.

	<u>Ratio</u>	<u>Rate of Flow, (GPD)</u>	<u>Weight</u>
Average Day	1.00	120,000	0.5405
Maximum Day			
Extra Capacity	<u>0.55</u>	<u>66,000</u>	<u>0.2973</u>
Subtotal	<u>1.55</u>	186,000	0.8378
Fire Protection		<u>36,000</u>	<u>0.1622</u>
Total		<u>222,000</u>	<u>1.0000</u>

The public and private fire protection allocation factors in column 6 on the previous page are based on the deliverability of 300 gallons per minute for 2 hours.

**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 0.1465	(5)	(6)=(5) X 0.3261	(7)	(8)=(7) X 0.5274	(9)=(4)+(6)+(8)
Residential	1.97	0.4397	0.0645	0.4815	0.1570			0.2215
Commercial	0.58	0.1286	0.0188	0.1006	0.0328			0.0516
Industrial	0.01	0.0023	0.0003	0.0009	0.0003			0.0006
Other Public Authority	0.08	0.0171	0.0025	0.0134	0.0044			0.0069
Sales for Resale	1.81	0.4031	0.0591	0.4036	0.1316			0.1907
Private Fire Protection	0.01	0.0014	0.0002			0.1560	0.0823	0.0825
Public Fire Protection	0.04	0.0078	0.0011			0.8440	0.4451	0.4462
Total	4.49	1.0000	0.1465	1.0000	0.3261	1.0000	0.5274	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. Continued

**ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND
MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.**

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 3.23 and the average daily system sendout for 2002 of 0.120 MGD. The system demand for fire protection is 300 gallons per minute.

	<u>Ratio</u>	<u>Rate of Flow, (GPM)</u>	<u>Weight</u>
Average Hour	1.00	83.3	0.1465
Maximum Hour Extra Capacity	<u>2.23</u>	<u>185</u>	<u>0.3261</u>
Subtotal	<u>3.23</u>	269	0.4726
Fire Protection		<u>300</u>	<u>0.5274</u>
Total		<u>569</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> (1)	<u>Average Hourly Consumption Thousand Gal.</u> (2)	<u>Maximum Hour Extra Capacity</u>		
		<u>Factor*</u> (3)	<u>1,000 Gallons Per Hour (4)=(2)x(3)</u>	<u>Allocation Factor (5)</u>
Residential	1.97	3.5	6.90	0.4815
Commercial	0.58	2.5	1.44	0.1006
Industrial	0.01	1.2	0.01	0.0009
Other Public Authority	0.08	2.5	0.19	0.0134
Sales for Resale	<u>1.81</u>	<u>3.2</u>	<u>5.79</u>	<u>0.4036</u>
Total	<u>4.44</u>		<u>14.34</u>	<u>1.0000</u>

* 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).

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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 0.1984	(5)	(6)=(5) X 0.4416	(7)	(8)=(7) X 0.3600	(9)=(4)+(6)+(8)
Residential	1.972	0.4397	0.0872	0.4815	0.2127			0.2999
Commercial	0.577	0.1286	0.0255	0.1006	0.0444			0.0699
Industrial	0.010	0.0023	0.0005	0.0009	0.0004			0.0009
Other Public Authority	0.077	0.0171	0.0034	0.0134	0.0059			0.0093
Sales for Resale	1.808	0.4031	0.0800	0.4036	0.1782			0.2582
Private Fire Protection	0.007	0.0014	0.0003			0.1560	0.0562	0.0565
Public Fire Protection	0.035	0.0078	0.0015			0.8440	0.3038	0.3053
Total	4.487	1.0000	0.1984	1.0000	0.4416	1.0000	0.3600	1.0000

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. 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.

$$\text{Fire Protection Weight} = \frac{300 \text{ GPM} \times 60 \text{ Min.} \times 2 \text{ Hrs.}}{100,000 \text{ Gallons}} = 0.3600$$

$$\text{General Service Weight} = 1.0000 - 0.3600 = 0.6400$$

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	31.00	0.1984
Extra Capacity Maximum Hour	<u>2.23</u>	<u>69.00</u>	<u>0.4416</u>
Total	<u><u>3.23</u></u>	<u><u>100.00</u></u>	<u><u>0.6400</u></u>

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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 (1)	Maximum Daily Consumption		Maximum Daily Consumption		Maximum Hourly Consumption		Allocation Factor (8)=(3)+ (5)+(7)
	Allocation Factor 2 (2)	Weighted Factor (3)=(2)X 0.8106	Allocation Factor 3 (4)	Weighted Factor (5)=(4)X 0.1841	Allocation Factor 4 (6)	Weighted Factor (7)=(6)X 0.0053	
Residential	0.4545	0.3684	0.3808	0.0700	0.2215	0.0012	0.4395
Commercial	0.1205	0.0977	0.1010	0.0186	0.0516	0.0003	0.1166
Industrial	0.0019	0.0015	0.0015	0.0003	0.0006	0.0000	0.0018
Other Public Authority	0.0160	0.0130	0.0134	0.0025	0.0069	0.0000	0.0155
Sales for Resale	0.4012	0.3252	0.3361	0.0619	0.1907	0.0010	0.3882
Private Fire Protection	0.0009	0.0007	0.0261	0.0048	0.0825	0.0004	0.0059
Public Fire Protection	0.0050	0.0041	0.1411	0.0260	0.4462	0.0024	0.0325
Total	<u>1.0000</u>	<u>0.8106</u>	<u>1.0000</u>	<u>0.1841</u>	<u>1.0000</u>	<u>0.0053</u>	<u>1.0000</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	4,600	0.8106
Associated with Maximum Day and Fire	1,045	0.1841
Associated with Maximum Hour	<u>30</u>	<u>0.0053</u>
Total	<u>5,675</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	Maximum Daily Consumption		Maximum Hourly Consumption		Allocation Factor
	Allocation Factor 3	Weighted Factor	Allocation Factor 4	Weighted Factor	
(1)	(2)	(3)=(2)X 0.0000	(4)	(5)=(4)X 1.0000	(6)=(3)+(5)
Residential	0.3808	0.0000	0.2215	0.2215	0.2215
Commercial	0.1010	0.0000	0.0516	0.0516	0.0516
Industrial	0.0015	0.0000	0.0006	0.0006	0.0006
Other Public Authority	0.0134	0.0000	0.0069	0.0069	0.0069
Sales for Resale	0.3361	0.0000	0.1907	0.1907	0.1907
Private Fire Protection	0.0261	0.0000	0.0825	0.0825	0.0825
Public Fire Protection	0.1411	0.0000	0.4462	0.4462	0.4462
Total	1.0000	0.0000	1.0000	1.0000	1.0000

Assigned 100% to Maximum Hour Function. No Plant functionalization was performed.

	Total Footage of Mains	Weight
Transmission Mains	630,263	0.1937
Distribution Mains	2,624,076	0.8063
Total	3,254,339	1.0000

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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.

<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	384	0.7745
Commercial	84	0.1698
Industrial	3	0.0054
Other Public Authority	9	0.0188
Sales for Resale	16	0.0315
Private Fire	<u>0</u>	<u>0.0000</u>
Total	<u>496</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	377	0.7880
Commercial	77	0.1609
Industrial	2	0.0045
Other Public Authority	7	0.0147
Sales for Resale	8	0.0173
Private Fire Protection	<u>7</u>	<u>0.0146</u>
Total	<u><u>479</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 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	\$ 2,773	0.2215
Commercial	646	0.0516
Industrial	8	0.0006
Other Public Authority	86	0.0069
Sales for Resale	2,388	0.1907
Private Fire Protection	1,033	0.0825
Public Fire Protection	5,586	0.4462
Total	12,520	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	\$ 32	0.7745
Commercial	7	0.1698
Industrial	0	0.0054
Other Public Authority	1	0.0188
Sales for Resale	1	0.0315
Private Fire Protection	-	0.0000
Public Fire Protection	-	0.0000
Total	\$41	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	374	0.8042
Commercial	74	0.1592
Industrial	2	0.0043
Other Public Authority	6	0.0129
Sales for Resale	5	0.0108
Private Fire Protection	4	0.0086
Public Fire Protection	0	0.0000
Total	465	1.0000

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	374	0.8113
Commercial	74	0.1606
Industrial	2	0.0043
Other Public Authority	6	0.0130
Sales for Resale	5	0.0108
Total	461	1.0000

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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	\$65,963	0.5029
Commercial	16,093	0.1227
Industrial	318	0.0024
Other Public Authority	1,967	0.0150
Sales for Resale	38,425	0.2929
Private Fire Protection	1,408	0.0107
Public Fire Protection	7,009	0.0534
Total	<u>\$131,183</u>	<u>1.0000</u>

**MISSOURI-AMERICAN WATER COMPANY
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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	\$39,762	0.4387
Commercial	10,140	0.1119
Industrial	171	0.0019
Other Public Authority	1,308	0.0144
Sales for Resale	30,614	0.3377
Private Fire Protection	1,372	0.0151
Public Fire Protection	7,282	0.0803
Total	<u>\$90,649</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	\$475,328	0.4248
Commercial	116,551	0.1042
Industrial	2,149	0.0019
Other Public Authority	14,563	0.0130
Sales for Resale	306,058	0.2735
Private Fire Protection	25,479	0.0228
Public Fire Protection	178,744	0.1598
Total	<u>\$1,118,871</u>	<u>1.0000</u>

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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 <u>(1)</u>	Original Cost Measure of Value <u>(2)</u>	Allocation Factor <u>(3)</u>
Residential	\$329,509	0.4262
Commercial	80,749	0.1044
Industrial	1,499	0.0019
Other Public Authority	10,090	0.0130
Sales for Resale	211,437	0.2734
Private Fire Protection	17,480	0.0226
Public Fire Protection	<u>122,534</u>	<u>0.1585</u>
Total	<u><u>\$773,297</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	\$203,544	0.4866
Commercial	49,664	0.1187
Industrial	960	0.0023
Other Public Authority	6,042	0.0144
Sales for Resale	120,172	0.2872
Private Fire Protection	5,611	0.0134
Public Fire Protection	<u>32,418</u>	<u>0.0775</u>
Total	<u><u>\$418,411</u></u>	<u><u>1.0001</u></u>

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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	370.76	370.76	67.28	67.28	1.00	1.00	5.00	5.00	1.00	1.00	445.04	445.04
3/4	1.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1	1.7	0.33	0.55	4.67	7.93	1.00	1.70	0.00	0.00	1.00	1.70	6.99	11.89
1-1/2	3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	4.3	2.92	12.54	2.08	8.96	0.00	0.00	1.00	4.30	3.00	12.90	9.00	38.70
3	19.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	29.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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>374.00</u>	<u>383.85</u>	<u>74.03</u>	<u>84.17</u>	<u>2.00</u>	<u>2.70</u>	<u>6.00</u>	<u>9.30</u>	<u>5.00</u>	<u>15.60</u>	<u>461.03</u>	<u>495.63</u>

MISSOURI-AMERICAN WATER COMPANY
BRUNSWICK DISTRICT
PSC STAFF STUDY
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	370.76	370.76	67.28	67.28	1.00	1.00	5.00	5.00	1.00	1.00	0.00	0.00	445.04	445.04
1	1.17	0.33	0.38	4.67	5.46	1.00	1.17	0.00	0.00	1.00	1.17	0.00	0.00	6.99	8.18
1-1/2	1.58	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
2	2.04	2.92	5.95	2.08	4.25	0.00	0.00	1.00	2.04	3.00	6.12	0.00	0.00	9.00	18.36
3	2.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	2.73	1.00	2.73
4	2.88	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
6	4.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	4.24	1.00	4.24
8	6.98	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
10	9.50	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
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>374.00</u>	<u>377.09</u>	<u>74.03</u>	<u>76.99</u>	<u>2.00</u>	<u>2.17</u>	<u>6.00</u>	<u>7.04</u>	<u>5.00</u>	<u>8.29</u>	<u>2.00</u>	<u>6.97</u>	<u>463.03</u>	<u>478.55</u>

**MISSOURI-AMERICAN WATER COMPANY
BRUNSWICK 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	0	0	
3 -inch	9.00	0	0	
4 -inch	16.00	0	0	
6 -inch	36.00	1	36	
8 -inch	64.00	0	0	
10 -inch	100.00	0	0	
12 -inch	144.00	0	0	
Private Hydrants	32.75	3	98	
Total Private Fire Protection		4	134	0.1560
<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	58	725
Total Public Fire Protection		58	725	0.8440
Total Fire Protection		62	859	1.0000