

**Missouri American Water Company Case No. WR-2003-0500
Staff's Weather Normalized Usage Per Customer Per Day
Based On 1971 Through 2000 Normal Weather**

District	Monthly Residential	Monthly Commercial	Quarterly Residential	Quarterly Commercial	Monthly OPA	Quarterly OPA
Brunswick	125.48	190.26				
Jefferson City	167.63	876.37				
Joplin	198.76	911.53				
Mexico	153.80	602.28				
Parkville Water	281.19	962.48				
St. Charles	271.91	1,264.85				
St. Joseph	168.80	862.60				
St. Louis	11,051.03	14,302.64	292.05	965.63	15,344.37	1,509.07
Warrensburg	181.89	824.36				

Schedule 1

Reasons for changes:	Errata		Revision	Errata	
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MISSOURI-AMERICAN WATER WR-2003-0500 ST LOUIS COUNTY QUARTERLY RESIDENTIAL

MAWC NORMAL = 284.0628664 (Gallons/Meter/Day)	MAWC Normal: 277.62 (Gallons/Bill/Day)	Meters: 310,435	Bills: 317,639
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DNSHORT
12.93

YYYY	GCD(ALL CUS)	SHORT	NSHORT	DNSHORT	2002	Regression Line	Residual	Wx & Dummy Adjusted	Projected Normal	Hot&Dry: 1988	Cool&Wet: 1993	Expected
1993	262.8	4.32	6.51	-2.19	0	263.78	(1.02)	291.03	292.05	327.66	262.76	
1994	293.8	6.65	6.51	0.14	0	293.83	0.01	292.06	292.05	328.69	263.79	
1995	282.0	5.68	6.51	-0.83	0	281.34	0.67	292.72	292.05	329.35	264.45	
1996	284.5	5.55	6.51	-0.96	0	279.68	4.83	296.88	292.05	333.51	268.61	
1997	287.2	6.35	6.51	-0.16	0	289.99	(2.77)	289.27	292.05	325.90	261.01	
1998	270.9	4.92	6.51	-1.59	0	271.48	(0.55)	291.50	292.05	328.13	263.23	
1999	294.6	6.53	6.51	0.02	0	292.32	2.24	294.29	292.05	330.92	266.02	
2000	281.8	5.85	6.51	-0.66	0	283.51	(1.66)	290.39	292.05	327.02	262.12	
2001	286.8	6.24	6.51	-0.27	0	288.56	(1.73)	290.32	292.05	326.95	262.05	
2002	277.4	7.07	6.51	0.56	1	277.41	0.00	292.05	292.05	328.68	263.78	299.35
2003												
2004												

	Max h2o Gain	Drainage Rate	H2O Needs (In)
	5.00	0.44	1.00%
			0.07

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.974597
R Square	0.949839
Adjusted R Sq	0.935507
Standard Error	2.494869
Observations	10

ANOVA

	df	SS	MS	F	Significance F
Regression	2	825.0461	412.523	66.27544	2.8267E-05
Residual	7	43.5706	6.224372		
Total	9	868.6167			

	Coefficients	Standard Err	t Stat	P-value	Lower 95%	Upper 95%	ower 95.0%	Upper 95.0%
Intercept	292.0488	1.16998	249.6187	4.37E-15	289.2821973	294.815317	289.2822	294.8153173
DNSHORT	12.93244	1.140949	11.33481	9.31E-06	10.23452747	15.6303567	10.23453	15.63035668
2002	-21.9341	3.011259	-7.28404	0.000165	-29.0546359	-14.813653	-29.0546	-14.813653

MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2003-0500
DISTRICT: ST LOUIS COUNTY WATER (QUARTERLY RESIDENTIAL)

YYYY	GMD	METERS	MGAL	MDT	PRCP	LITE	EVAP	OPEN	GAIN	LOSS	CLOSE	AVAIL	NEEDS	SHORT	NSHORT	DNSHORT
1970				54.8	36.2	320	265	3.426	21.49	21.02	3.896	7.01	12.88	5.86	6.51	-0.65
1971				56.8	33.7	320	280	3.896	20.26	19.65	4.505	6.36	13.30	6.94	6.51	0.43
1972				55.2	33.7	321	272	4.505	20.15	19.72	4.936	6.17	13.36	7.19	6.51	0.68
1973				57.3	39.8	320	266	4.936	20.67	20.83	4.776	6.26	12.59	6.33	6.51	-0.18
1974				56.2	36.8	320	262	4.776	19.84	20.93	3.679	6.44	12.36	5.92	6.51	-0.59
1975				56.7	40.2	320	267	3.679	22.79	22.33	4.134	7.65	12.75	5.10	6.51	-1.41
1976				55.3	23.5	321	269	4.134	15.12	16.66	2.598	5.18	12.81	7.64	6.51	1.13
1977				56.7	43.4	320	283	2.598	21.95	20.18	4.364	6.83	13.78	6.95	6.51	0.44
1978				54.7	37.7	320	273	4.364	18.40	18.56	4.207	6.60	13.14	6.55	6.51	0.04
1979				54.7	29.5	320	276	4.207	15.48	16.55	3.135	5.81	13.19	7.38	6.51	0.87
1980				56.9	27.5	321	289	3.135	16.88	17.51	2.504	6.38	14.53	8.15	6.51	1.64
1981				56.6	45.5	320	260	2.504	23.14	21.63	4.018	7.29	12.31	5.02	6.51	-1.49
1982				55.4	55.0	320	261	4.018	23.26	22.47	4.808	7.09	12.19	5.09	6.51	-1.42
1983				56.2	44.8	320	279	4.808	19.41	19.28	4.939	5.87	13.54	7.67	6.51	1.16
1984				56.6	51.7	321	266	4.939	20.81	20.81	4.939	5.72	13.00	7.28	6.51	0.77
1985				55.5	50.7	320	265	4.939	20.58	20.82	4.697	6.96	12.54	5.59	6.51	-0.92
1986				57.9	34.9	320	276	4.697	20.91	21.51	4.101	6.62	13.65	7.03	6.51	0.52
1987				58.5	38.4	320	277	4.101	20.18	19.50	4.788	6.04	13.82	7.78	6.51	1.27
1988				56.5	33.9	321	287	4.788	17.16	17.01	4.936	5.06	14.40	9.34	6.51	2.83
1989				55.3	28.6	320	268	4.936	16.58	18.90	2.622	6.01	12.49	6.48	6.51	-0.03
1990				58.1	45.1	320	268	2.622	23.44	21.45	4.613	6.60	12.55	5.96	6.51	-0.55
1991				58.3	33.5	320	281	4.613	19.98	20.03	4.567	6.02	13.79	7.77	6.51	1.26
1992				56.2	33.5	321	248	4.567	20.42	20.30	4.687	5.46	11.75	6.29	6.51	-0.22
1993	262.76	274,429	26,337,508	54.7	54.8	320	247	4.687	23.47	23.54	4.621	7.69	12.02	4.32	6.51	-2.19
1994	293.85	277,001	29,729,856	56.8	34.7	320	266	4.621	20.12	20.31	4.438	5.97	12.62	6.65	6.51	0.14
1995	282.00	279,330	28,771,525	56.2	41.7	320	265	4.438	19.56	20.25	3.753	6.92	12.60	5.68	6.51	-0.83
1996	284.50	281,490	29,250,936	55.0	43.7	321	257	3.753	21.43	20.94	4.241	6.60	12.15	5.55	6.51	-0.96
1997	287.22	283,094	29,698,300	55.2	31.2	320	253	4.241	18.47	18.97	3.747	5.51	11.86	6.35	6.51	-0.16
1998	270.92	284,600	28,162,554	58.8	43.6	320	269	3.747	24.36	24.81	3.304	7.99	12.90	4.92	6.51	-1.59
1999	294.56	285,908	30,760,506	58.0	34.1	320	271	3.304	19.39	20.13	2.560	6.37	12.90	6.53	6.51	0.02
2000	281.85	286,670	29,511,009	56.2	37.4	321	265	2.560	21.46	19.95	4.074	6.56	12.41	5.85	6.51	-0.66
2001	286.83	289,867	30,367,468	57.8	35.3	320	270	4.074	23.00	22.39	4.677	7.61	13.85	6.24	6.51	-0.27
2002	277.41	310,435	31,454,872	57.9	41.0	320	270	4.677	20.41	21.44	3.648	7.17	14.24	7.07	6.51	0.56



Missouri-American Water Company

535 North New Ballas Road • St. Louis, Missouri 63141 • Phone (314) 991-3404 • Fax (314) 432-7824

www.mawc.com

January 16, 2003

Mr. Dennis Patterson
Missouri Public Service Commission
200 Madison St.
Jefferson City, MO 65102

Dear Dennis:

Enclosed in the box is the data related to the customer billing information that the Company agreed to provide to the staff and Office of Public Council per the stipulation in the merger case (Case. No. WM-2001-309).

The information being provided is for the year 2001 and is as follows:

- a) Meter reading schedules.
- b) Revenue summaries.
- c) Final, local, and additional billing reports for all operations except St. Louis (St. Louis has a different billing system).
- d) Bill Analysis Report for all operations except St. Louis. This report provides usage data by class, by month, by size of meter.
- e) For St. Louis, the monthly bill analysis from the CIS system (January 2001 – November 2001) and the Bill Frequency Report from new ECIS (December 2001).

We will be forwarding to you the 2002 data within the next two weeks.

If you have any questions, please feel free to give me a call at 314.996.2363.

Sincerely,

Edward J. Grubb
Director, Rates & Revenue

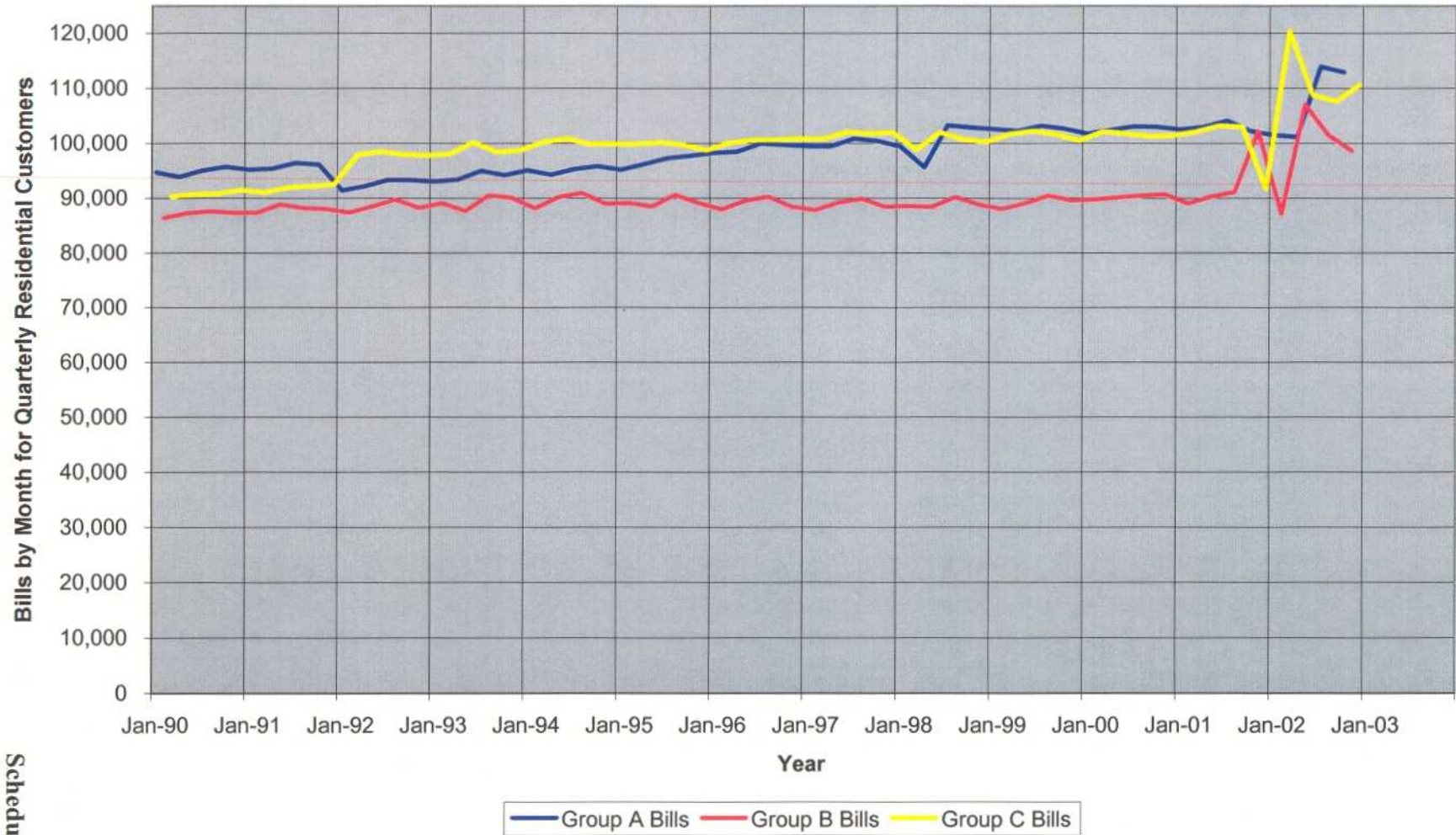
EJG/dh

Enclosures

Cc: Mr. Dean Cooper, Byrdon, Swearngen & England, 312 E. Capitol Ave., Jefferson City, MO 65102
Ms. Ruth O'Neil, Office of Public Counsel, Governor Office Building, Suite 650, 250 Madison St.,
Jefferson City, MO 65102-7800
Mr. Cliff Snodgrass, Missouri Public Service Commission, 200 Madison St., Jefferson City, MO 65102
Mr. Frank Kartmann, Vice President - Operations, Missouri-American Water Company
Missouri-American Water Company, St. Louis Rates Department

Schedule 4

Missouri-American Water Company
District: St. Louis County Water
Class: Quarterly Residential
Issue: Bills Per Billing Cycle and ECIS



Schedule 5

OPERATING DATA REPORT (RE-FORM 329)

	RESIDENTIAL	APARTMENTS	COMMERCIAL	INDUSTRIAL	FIRE SERVICE	OTHER	TOTAL
1 NUMBER OF BILLS							
2 Monthly	603	0	4,794	2,552	0	239	8,188
3 Bi-monthly or quarterly	1,177,966	0	62,441	0	0	8,198	1,248,605
4 Other	0	0	0	0	0	50	50
5 Total actual	1,178,569	0	67,235	2,552	0	8,487	1,256,843
6 Budget	1,154,085	0	67,714	2,769	0	5,006	1,229,561
7 Over (under)	24,484	0	(479)	(217)	0	3,481	27,482
8 WATER SALES (1,000 GAL.)							
9 Metered (rev. summary)	29,736,604	0	8,137,158	6,633,702	0	4,700,425	49,207,889
10 Flat rate (estimated)	0	0	0	0	0	0	0
11 Total billed	29,736,604	0	8,137,158	6,633,702	0	4,700,425	49,207,889
12 (Credits)	0	0	0	0	0	0	0
13 Net	29,736,604	0	8,137,158	6,633,702	0	4,700,425	49,207,889
14 Budget	30,834,597	0	8,022,656	6,716,544	0	4,212,357	49,786,154
15 Over (under)	(1,097,993)	0	114,502	(82,842)	0	488,068	(578,265)
16 REVENUES (DOLLARS)							
17 Billed	67,794,577	0	16,777,733	7,017,365	6,243,707	5,635,897	103,469,279
18 (Credits)	0	0	0	0	0	0	0
19 Net	67,794,577	0	16,777,733	7,017,365	6,243,707	5,635,897	103,469,279
20 Budget	69,920,795	0	16,494,284	7,053,294	6,159,804	4,508,294	104,136,471
21 Billed rev./1,000 gal.	2.280		2.062	1.058		1.199	1.976
22 Budget rev./1,000 gal.	2.268		2.056	1.050		1.070	1.968
23 CUSTOMERS							
24 Beginning of period	286,334	0	15,680	214	2,954	1,422	306,604
25 Gains	1,303	0	84	0	122	147	1,656
26 (Losses)	(7)	0	(104)	(6)	0	(52)	(169)
27 End of period	287,630	0	15,660	208	3,076	1,517	308,091
28 Budget	289,804	0	16,465	213	0	1,588	308,070
29 Over (under)	(2,174)	0	(805)	(5)	3,076	(71)	21
30 SYSTEM DELIVERY (1,000 GAL.)	ACTUAL		BUDGET		OVER (UNDER)	NON-REVENUE USAGE	
31 Water sales (line 13)	49,207,889	84.7%	49,786,154	84.5%	(578,265)		
32 Non-revenue usage (line 54)	0	0.0%	0	0.0%	0		
33 Unaccounted for	8,917,813	15.3%	9,158,105	15.5%	(240,292)		
34 Total	58,125,702	100.0%	58,944,259	100.0%	(818,557)		
35	ACTUAL	BUDGET	LAST YEAR	CUSTOMERS			
36 FIRE HYDRANTS	27,875	27,644	27,768			DISTRIBUTION SYSTEM:	
37 PRECIPITATION	38.50	37.48	33.70	Monthly	674	Office	0
38 NEW SERVICES	553	0	1,829	Bi-mo./qtrly.	304,334	Meter shop	0
39 SERVICES REPLACED	0	0	0	Other	3,083	Dist. bldgs.	0
40 NON-SCH. OVERTIME HRS.				Total (L 27)	308,091	Drain. Store.	0
41 Operating	23,912.0	15,879.0	18,644.3	NO. EST. BILLS		Ident. leak.	0
42 Maintenance	56,682.0	59,307.0	67,099.1	This year	0	Flush mains	0
43 Construction	14,775.0	19,104.0	15,537.1	Last year	0	Bleeders	0
44 Other	8,043.7	0.0	6,693.9	3 OR MORE EST.		Fire usage	0
45 Total	103,412.7	94,290.0	107,974.4	This year	0		
46 EMPLOYEES				Last year	0		
47 Production	132	147	129			Street clean.	0
48 Distribution	284	261	285			Sewer flush.	0
49 Commercial	30	28	0			Franchise A	0
50 Adm. & Gen.	92	132	133				
51 Total	538	568	547			Franchise B	0
52 OPER./MAINT. PAYROLL	20,066,408	19,627,337	21,392,496	Max Day Pump	258,520	Other A	0
53 CAPITAL/OTHER PAYROLL	7,763,437	6,206,080	7,261,160	Avg Day Pump	158,813		0
54 TOTAL PAYROLL	27,829,845	25,833,417	28,653,656			Total	0
YEAR-TO-DATE							

December 31, 2000

ST LOUIS COUNTY WATER COMPANY

Schedule 6-1

OPERATING DATA REPORT (RE-FORM 329)

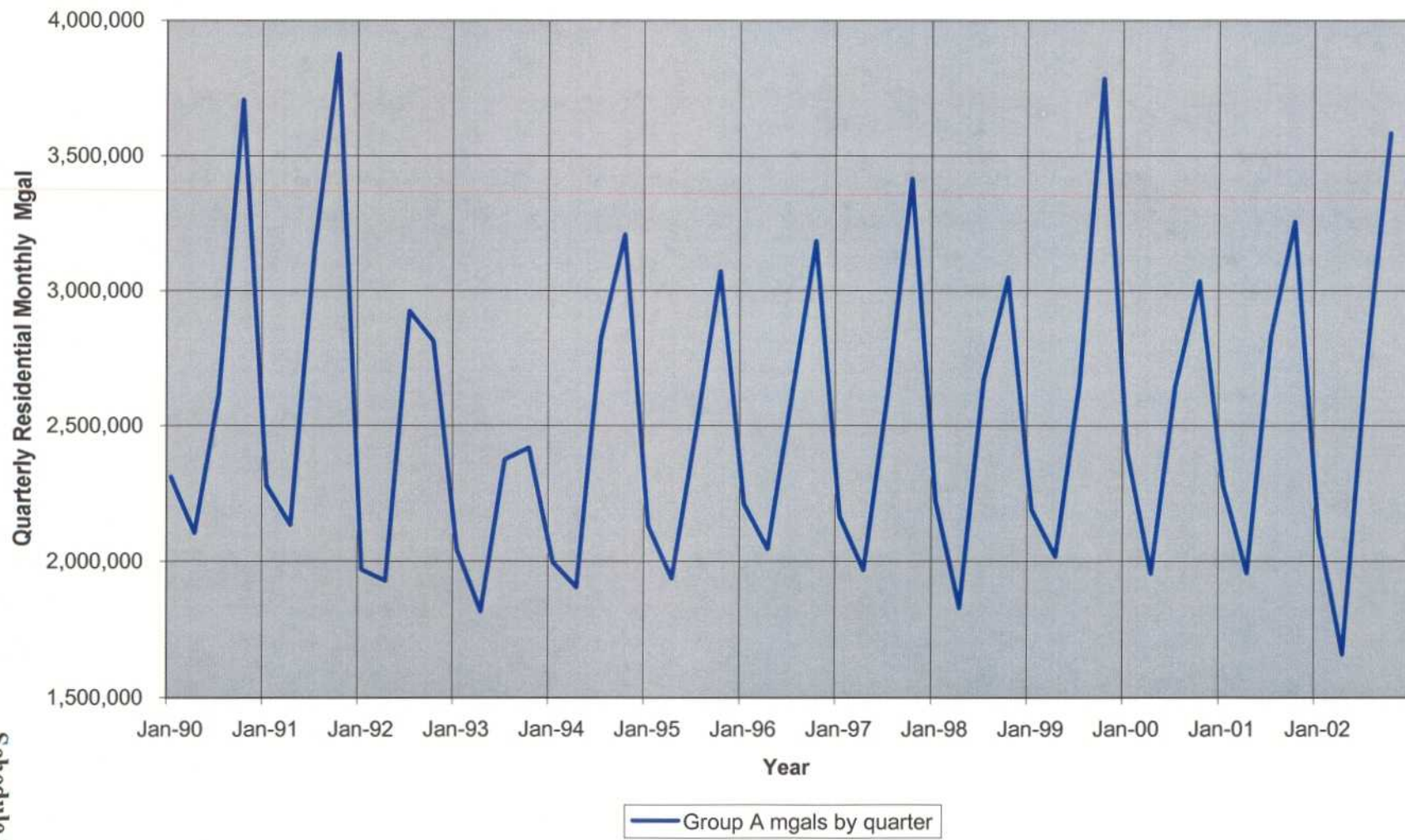
	RESIDENTIAL	APARTMENTS	COMMERCIAL	INDUSTRIAL	FIRE SERVICE	OTHER	TOTAL
1 NUMBER OF BILLS							
2 Monthly	733	0	4,485	2,321	51	110	7,700
3 Bi-monthly or quarterly	1,093,658	0	58,239	340	0	4,049	1,156,286
4 Other	0	0	0	0	0	0	0
5 Total actual	1,094,391	0	62,724	2,661	51	4,159	1,163,986
6 Budget	1,194,817	0	65,304	2,568	2,961	3,541	1,269,191
7 Over (under)	(100,426)	0	(2,580)	93	(2,910)	618	(105,205)
8 WATER SALES (1,000 GAL.)							
9 Metered (rev. summary)	31,055,460	0	8,465,390	6,584,001	0	4,255,116	50,359,966
10 Flat rate (estimated)	0	0	0	0	0	0	0
11 Total billed	31,055,460	0	8,465,390	6,584,001	0	4,255,116	50,359,966
12 (Credits)	0	0	0	0	0	0	0
13 Net	31,055,460	0	8,465,390	6,584,001	0	4,255,116	50,359,966
14 Budget	30,815,397	0	7,988,317	6,767,474	0	4,329,833	49,901,021
15 Over (under)	240,063	0	477,073	(183,473)	0	(74,718)	458,945
16 REVENUES (DOLLARS)							
17 Billed	72,452,768	0	18,013,605	7,147,850	6,618,164	5,166,769	109,399,156
18 (Credits)	0	0	0	0	0	0	0
19 Net	72,452,768	0	18,013,605	7,147,850	6,618,164	5,166,769	109,399,156
20 Budget	73,083,107	0	17,194,239	7,478,098	6,535,229	4,927,881	109,218,554
21 Billed rev./1,000 gal.	2.333		2.128	1.086		1.214	2.041
22 Budget rev./1,000 gal.	2.372		2.152	1.105		1.138	2.058
23 CUSTOMERS							
24 Beginning of period	287,830	0	15,660	208	3,076	1,517	308,091
25 Gains	4,047	0	3,006	367	90	513	8,023
26 (Losses)	(1,810)	0	(37)	(10)	(14)	(1,327)	(3,198)
27 End of period	289,867	0	18,629	565	3,152	703	312,916
28 Budget	290,258	0	15,862	214	3,033	858	310,225
29 Over (under)	(391)	0	2,767	351	119	(155)	2,691
30 SYSTEM DELIVERY (1,000 GAL.)	ACTUAL		BUDGET		OVER (UNDER)	NON-REVENUE USAGE	
31 Water sales (line 13)	50,359,966	84.0%	49,901,021	84.8%	458,945		
32 Non-revenue usage (line 54)	0	0.0%	0	0.0%	0		
33 Unaccounted for	9,613,944	16.0%	8,928,078	15.2%	685,866		
34 Total	59,973,910	100.0%	58,829,099	100.0%	1,144,811		
35	ACTUAL	BUDGET	LAST YEAR	CUSTOMERS		DISTRIBUTION SYSTEM:	
36 FIRE HYDRANTS	27,848	27,991	27,875				
37 PRECIPITATION	37.98	33.30	38.50	Monthly	3,900	Office	0
38 NEW SERVICES	826	2,160	218	Bi-mo./qtrly.	309,016	Meter shop	0
39 SERVICES REPLACED	0	0	0	Other	0	Dist. bldgs.	0
40 NON-SCH. OVERTIME HRS.				Total (L 27)	312,916	Drain. Store.	0
41 Operating	19,173.56	22,389.00	23,911.10	NO. EST. BILLS		Ident. leak.	0
42 Maintenance	45,574.57	57,328.00	56,681.10	This year	0	Flush mains	0
43 Construction	14,319.80	0.00	14,775.00	Last year	0	Bleeders	0
44 Other	21,270.02	0.00	8,043.80	3 OR MORE EST.		Fire usage	0
45 Total	100,337.95	79,717.00	103,411.00	This year	0		
46 EMPLOYEES				Last year	0		
47 Production	136	141	132			Street clean.	0
48 Distribution	277	286	284			Sewer flush.	0
49 Commercial	7	0	30			Franchise A	0
50 Adm. & Gen.	74	134	92				
51 Total	494	561	538			Franchise B	0
52 OPER./MAINT. PAYROLL	19,214,802	20,754,199	20,109,255	Max Day Pump	269,130	Other A	0
53 CAPITAL/OTHER PAYROLL	5,489,249	6,345,028	7,025,336	Avg Day Pump	164,312		
54 TOTAL PAYROLL	24,704,050	27,099,225	27,134,591			Total	0
YEAR-TO-DATE		December 31, 2001		ST LOUIS COUNTY WATER COMPANY			

Schedule 6-2

Missouri-American Water Company
 System Delivery, Water Sales and Number of Customers
 St Louis County District
 for the Year Ended December 31, 2002

Month	System Delivery	Water Sales						Total	Customers						Total
		Residential	Commerical	Industrial	OPA	OWU	Misc		Residential	Commerical	Industrial	OPA	OWU	Misc	
Jan	4,145,120	2,116,380	543,855	402,906	10,991	298,916	(26)	3,373,022	303,267	19,583	576	683	23	3,145	327,277
Feb	3,616,130	1,986,800	607,449	463,169	22,685	244,163	0	3,324,266	311,259	20,151	572	684	23	3,141	335,830
Mar	4,033,670	2,424,921	1,329,578	416,905	11,708	137,266	(53)	4,320,315	311,500	20,035	578	682	19	3,134	335,948
Apr	4,161,350	1,664,225	(208,317)	415,984	7,699	144,586	35	2,024,212	311,228	20,414	574	684	11	3,126	336,037
May	4,580,330	2,246,170	656,744	502,761	30,531	152,581	45	3,588,832	310,973	20,471	576	683	11	3,120	335,834
Jun	5,975,320	2,233,330	730,797	448,854	25,053	164,231	(20)	3,602,245	311,139	20,554	570	684	11	3,114	336,072
Jul	7,745,000	2,730,440	980,771	737,211	45,219	224,828	32	4,718,501	311,225	20,489	589	685	11	3,114	336,093
Aug	6,828,965	3,473,334	1,176,993	699,830	109,931	226,265	21	5,686,373	310,886	18,300	212	585	4	3,115	333,102
Sep	6,294,580	3,758,324	1,056,621	589,781	50,214	228,199	0	5,683,139	310,976	18,216	212	584	5	3,110	333,103
Oct	4,834,970	3,590,447	1,030,033	607,508	34,133	150,379	32	5,412,531	310,995	18,475	213	584	5	3,104	333,376
Nov	4,141,120	2,835,627	895,886	446,106	52,824	162,554	0	4,392,997	310,980	18,481	209	592	5	3,099	333,366
Dec	4,306,490	2,488,722	686,275	128,330	14,583	170,888	0	3,488,798	311,066	18,500	208	590	5	3,093	333,462
	<u>60,663,045</u>	<u>31,548,718</u>	<u>9,486,684</u>	<u>5,859,345</u>	<u>415,572</u>	<u>2,304,856</u>	<u>55</u>	<u>49,615,230</u>							

Missouri-American Water Company
District: St. Louis County Water
Class: Quarterly Residential
Issue: Billing Adjustments for April (Group A) Quarterly Customers



Schedule 7

— Group A mgals by quarter

