

EXHIBIT

Exhibit No.:
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Case No.:

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Rate of Return
Mark Burdette
Surrebuttal
Public Counsel
WR-2003-0500

SURREBUTTAL TESTIMONY

OF

MARK BURDETTE

FILED³

JAN 23 2004

Missouri Public
Service Commission

Submitted on Behalf of
the Office of the Public Counsel

MISSOURI-AMERICAN WATER COMPANY

Case No. WR-2003-0500

December 5, 2003

Exhibit No. ~~5~~ 62
Case No(s) WR-2003-0500
Date 12/11/03 Rptr Subm

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Missouri-American Water
Company for Authority to File Tariffs
Reflecting Increased Rates for Water
and Sewer Service.

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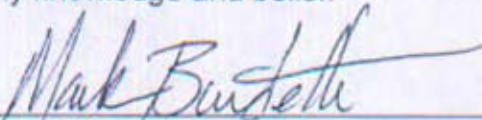
Case No. WR-2003-0500

AFFIDAVIT OF MARK BURDETTE

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Mark Burdette, of lawful age and being first duly sworn, deposes and states:


1. My name is Mark Burdette. I am a Financial Analyst for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my direct testimony consisting of pages 1 through 8, Schedules MB-2 Updated, MB-4 Updated, MB-11 Updated, MB-6, page 1 (Amended), MB-6, page 2 (Amended), MB-9 (Amended), MB-11 (Amended).
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.



Mark Burdette

Subscribed and sworn to me this 5th day of December 2003.

KATHLEEN HARRISON
Notary Public - State of Missouri
County of Cole
My Commission Expires Jan. 31, 2006



Kathleen Harrison
Notary Public

My commission expires January 31, 2006.

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SURREBUTTAL TESTIMONY
OF
MARK BURDETTE
MISSOURI AMERICAN WATER COMPANY
CASE NO. WR-2003-0500 AND WC-2004--0168

7 Q. ARE YOU THE SAME MARK BURDETTE WHO FILED DIRECT AND REBUTTAL
8 TESTIMONIES BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION (MPSC OR
9 THE COMMISSION) IN THIS PROCEEDING?

10 A. Yes.

11 Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?

12 A. I will respond to the rebuttal testimony of MPSC Staff (Staff) witness David Murray, the
13 rebuttal testimony of Missouri-American Water Company (MAWC, the Company) witness
14 Pauline Ahern and the rebuttal testimony of St. Joseph Water Rate Coalition witness
15 Stephen Wurtzler.

16 Also, I will present updated recommendations for MAWC's capital structure and
17 overall rate of return (weighted average cost of capital) as of 30 November 2003. These
18 changes are shown on Schedules MB-2 Updated, MB-4 Updated and MB-11 Updated
19 attached to this testimony.

20 Q. HAVE YOU MADE ANY CHANGES IN YOUR RECOMMENDATIONS AS THEY
21 APPEAR IN YOUR DIRECT TESTIMONY?

22 A. Yes. I have updated my capital structure and weighted average cost of capital to 30
23 November 2003. These changes are shown on the attached Schedules MB-2 Updated, MB-
24 4 Updated, and MB-11 Updated.

25 Also, because I recommend that the MPSC focus on the lower end of cost of equity
26 range, the updated cost of capital calculation includes only a return on equity of 9.50%

1 Q. PLEASE DESCRIBE THE CHANGES THAT YOU MADE.

2 A. The most significant change is that I have excluded short-term debt from MAWC's capital
3 structure. This change was appropriate based on the Company's diminished use of short-
4 term debt for the twelve months ending 30 June 2003 and the twelve months ending 30
5 November 2003 (Schedule MB-4 Updated).

6 The exclusion of STD altered the capital structure for the Company (Schedule MB-
7 2 Updated), which in turn affected the overall weighted average cost of capital (Schedule
8 MB-11 Updated). The general affect was that the overall cost of capital increased due to
9 the exclusion of short-term debt, which has the lowest embedded cost of any component in
10 the capital structure.

11 Q. PLEASE DETAIL THE CHANGES TO MAWC'S CAPITAL STRUCTURE AND
12 OVERALL COST OF CAPITAL.

13 A. I recommend the following capital structure be used in this proceeding:

	<u>Percent</u>
Common equity	43.94%
Preferred stock	0.53%
Long-term debt	55.53%
Short-term debt	<u>0.0%</u>
	100.0%

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20 The change in capital structure leads the change in MAWC's overall cost of capital. The
21 overall rate of return I recommend for MAWC is now 7.68% rather than 7.45%, assuming a
22 9.50% cost of equity.
23

24 Q. DID STAFF WITNESS MURRAY POINT OUT POSSIBLE MISTAKES IN CERTAIN
25 SCHEDULES ATTACHED TO YOUR DIRECT TESTIMONY?

26 A. Yes.
27

1 Q. DO YOU CONCUR WITH HIS FINDINGS AND HAVE YOU MADE CHANGES?

2 A. In all, I made changes to four schedules attached to my direct testimony. Three of the
3 needed changes were pointed out by Mr. Murray; one I discovered. The four updated
4 schedules are attached to this testimony as Schedule MB-6, page 1 (Amended), Schedule
5 MB-6, page 2 (Amended), Schedule MB-9 (Amended) and Schedule MB-11 (Amended).

6 Q. COULD YOU PLEASE EXPLAIN THE CHANGES?

7 A. Yes.

8 Schedule MB-6, page 2 (Amended): the average compound growth rate changed to 5.15%
9 from 6.14%. This is the correction that caused all changes on Schedule MB-6, page 1.

10 Schedule MB-6, page 1 (Amended): the EPS Compound Growth Rate changed to 5.15%
11 from 6.14% due to an incorrect average calculation on Schedule MB-6, page 2. This
12 change filtered through to other calculations on that same schedule: American States Water
13 Company's high growth rate changed to 5.15% from 6.14%; American State's overall
14 average changed to 3.63% from 3.72%; the average high growth rate for all comparison
15 companies changed to 7.38% from 7.71%; American State's Hi/Low average changed to
16 3.12% from 3.61%; the overall average of all growth rates for all companies changed to
17 3.92% from 3.95%. This correction did not alter any projected growth rates.

18 Schedule MB-9 (Amended): the CAPM cost of equity calculations on the bottom half of
19 the page incorrectly utilized the market premium from the top half of the page (6.60%)
20 rather than the correct market premium of 8.95% from the lower half of the page for all
21 comparison companies except California Water Services. This change resulted in the
22 following changes in particular CAPM costs of equity: American State's to 10.97% from
23 9.56%; Middlesex to 10.52% from 9.23%; Philadelphia Suburban to 11.87% from 10.22%;

Southwest Water to 11.42% from 9.89%. Additionally, the overall average CAPM cost of equity for all comparison companies changed to 11.15% from 9.97%.

Schedule MB-11 (Amended): the 'cost rate' for Short-term debt incorrectly appears as 3.50% in the second to the last column at the top of the page. This number actually corresponds to the percent of short-term debt in the capital structure rather than the cost of short-term debt. The correct cost of short-term debt should be 2.83%. This resulted in a weighted cost of capital in the final column for short-term debt of 0.10% rather than 0.12%. The overall weighted average cost of capital changed to 7.65% from 7.67%, assuming my high cost of equity recommendation of 10.0%. The cost of short-term debt is correct (2.83%) in the overall weighted average cost of capital calculation assuming my low cost of common equity of 9.50%. This change actually becomes moot as of the 30 November 2003 true-up period due to the exclusion of STD.

Q. DO ANY OF THE CORRECTIONS TO THESE SCHEDULES ALTER YOUR RECOMMENDED COST OF COMMON EQUITY FOR MISSOURI-AMERICAN WATER COMPANY?

A. No. In fact, the correction in Schedule MB-9 (Amended) lends credence to the fact Mr. Murray's recommended cost of equity range is too low.

Q. DO YOU HAVE COMMENTS REGARDING MR. MURRAY'S GENERAL NEGATIVE VIEW OF YOUR COST OF CAPITAL ANALYSIS?

A. Just a few. It would appear that Mr. Murray and Staff Financial Analysis overall believes cost of equity and cost of capital analyses can be successfully accomplished using a mechanistic, cookie-cutter methodology that does not leave room for the analyst's subjective input.

Where Mr. Murray does actually introduce a measure of subjectivity, he does so haphazardly and without support.

1 Q. PLEASE EXPLAIN.

2 A. In determining the growth rate range he would use for his Discounted Cash Flow analysis,
3 Mr. Murray first calculated an overall average growth rate of 4.89% for his comparable
4 companies, mechanistically giving equal weight to all growth rates considered, both
5 historical and projected. This average is calculated on Mr. Murray's Schedule 15 attached
6 to his direct testimony.

7 Then, he arbitrarily decided that that average of 4.89% should be the midpoint of a
8 growth rate range spanning a full 100 basis points (bp) – he added 50bp to arrive at the high
9 end of his range of 5.39% and subtracted 50bp to arrive at the low end of his range of
10 4.39%. The manner in which he arrived at this broad range is not explained:

11 The average of the historical and projected growth rates produces an
12 average growth rate of 4.89%. Considering all of this information, I chose
13 a reasonable growth rate range of 4.39 percent to 5.39 percent (see
14 Schedule 15). This range of growth (g) is the range that I used in the DCF
15 model to calculate a cost of common equity for the Comparables. (Murray-
16 direct, page 28, lines 8-12)
17

18 While one would hope and assume that indeed Mr. Murray “considered” all of the
19 information at his disposal, he fails to provide any explanation as to how he arrived at his
20 plus/minus 50bp adjustment off the average to arrive at his 100bp range centered at 4.89%.
21 One is unsure exactly what he considered or to what extent.

22 Given that Mr. Murray apparently believes that “clear and understandable” are key
23 virtues of a DCF growth rate calculation, it is curious that his methodology is inconsistent
24 with those virtues.
25

1 Q. DO YOU HAVE COMMENTS REGARDING THE REBUTTAL TESTIMONY OF
2 MAWC WITNESS PAULINE AHERN?

3 A. Yes. Beginning on page 31, line 21 of Ms. Ahern's rebuttal testimony, through page 32,
4 line 21, Ms. Ahern discusses various aspects of Standard & Poor's financial targets for
5 pretax interest coverage ratios for public water utilities whose bonds have an A rating.
6 This discussion is irrelevant to this proceeding.

7 Q. WHY IS THIS DISCUSSION IRRELEVANT?

8 A. It is not the 'right' of Missouri's utilities to be authorized returns that conform to a bond
9 rating agency's targets nor is it their right to be assured a particular rating. The Missouri
10 Public Service Commission does not and should not authorize returns for utilities under its
11 jurisdiction with the specific intent of achieving or maintaining any particular bond rating,
12 nor should it authorize returns merely to ensure the utility will achieve any particular target
13 financial ratio recommended by any particular bond-rating agency.

14 Ms. Ahern also attempts to lead the MPSC away from the legal standard of
15 "opportunity to earn" and incorrectly assumes the utility should be guaranteed a certain
16 level of *achieved* returns. That is simply not the way it works.

17 Q. DO YOU HAVE OTHER COMMENTS REGARDING MS. AHERN'S REBUTTAL
18 TESTIMONY?

19 A. Yes. In the same section as referenced above, Ms. Ahern suggests that one of the reasons
20 MAWC should be granted a greater level of return is because of "the Company's prudent
21 and significant use of low cost debt financing..." She comments that to acknowledge the
22 Company's actual embedded cost of long-term debt when calculating the Company's
23 overall cost of capital is "penalizing" the Company.

24 Ms. Ahern's implication is that MAWC should receive some level of premium
25 return, or "reward", for acting prudently and working to achieve the lowest cost of debt

1 available to it in the market. This thinking is flawed. It is, in fact, the Company's fiduciary
2 responsibility to act prudently and attempt to achieve the lowest cost of capital available.
3

4 Q. DO YOU HAVE COMMENTS ON THE REBUTTAL TESTIMONY OF ST. JOSEPH
5 WATER RATE COALITION WITNESS STEPHEN WURTZLER?

6 A. Yes. Mr. Wurtzler did not perform an independent analysis of the cost of equity or overall
7 cost of capital for MAWC. Rather, he reviewed my direct testimony and the direct
8 testimonies of Staff witness Murray and Company witness Ahern. Therefore, while Mr.
9 Wurtzler's opinion cannot be viewed as completely independent, it is beneficial for the
10 MPSC to note his opinion.

11 Mr. Wurtzler's recommended range for MAWC's cost of equity capital of 9.25%
12 to 9.75% essentially encompasses the recommendation of Staff and my own
13 recommendation, overlapping both. The 9.25% low end of Mr. Wurtzler's
14 recommendation just overlaps the 9.26% high end of Staff's recommended range and the
15 9.75% high end of his recommendation falls exactly in the middle of the range I
16 recommended in direct testimony of 9.50% to 10.0%. The midpoint of Mr. Wurtzler's
17 range is 9.50%, which is exactly the cost of equity I recommend the MPSC should
18 authorize for MAWC.

19 Also, Mr. Wurtzler's recommended overall cost of capital of 7.33% to 7.54% for
20 MAWC is similar to the overall cost of capital I recommend of 7.68% (as shown on
21 Schedule MB-11 Updated attached to this testimony). This result is not surprising given
22 that: 1) Mr. Wurtzler recommends a capital structure very similar to the capital structure I
23 recommend in direct testimony; 2) he recommends similar embedded costs for short-term
24 debt, long-term debt and preferred stock; and 3) as already mentioned, he recommends a
25 similar range for MAWC's cost of equity.

1 The most significant difference is that Mr. Wurtzler's capital structure includes
2 short-term debt, which I removed as of the true-up date of 30 November 2003. Because he
3 does not include the actual dollar amounts for each component of his recommended capital
4 structure, I cannot recalculate his overall cost of capital assuming no short-term debt.
5 However, I believe that given the other similarities, this updated calculation would be quite
6 close to my recommended overall cost of capital of 7.68%.

7 While Mr. Wurtzler's recommendations are not based on his own fundamental
8 analysis, his independent review of all parties' direct testimony and resulting
9 recommendations does support the recommendations I have made for MAWC in this
10 proceeding.

11 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

12 A. Yes, it does.

BURDETTE - DIRECT

WR-2003-0500 Missouri-American Water Company

Summary - Discounted Cash Flow Growth

Note: Negative growth is not included in averages.

Historical Growth

<u>COMPANY</u>	<u>br + sy</u>	Compound Growth			Value Line		
		<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>
American States Water Company	4.12%	5.15%	1.09%	4.35%	3.25%	1.25%	4.50%
California Water Service	2.34%	-7.49%	1.97%	4.16%	4.00%	3.00%	4.00%
Philadelphia Suburban	4.62%	4.24%	0.12%	2.77%	0.50%	0.75%	2.50%
Average	3.69%	4.69%	1.06%	3.76%	2.58%	1.67%	3.67%

Projected Growth

<u>COMPANY</u>	<u>br + sy</u>	Value Line/First Call			Average
		<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>	<u>Projected</u>
American States Water Company	4.70%	4.50%	2.00%	5.00%	4.05%
California Water Service	5.45%	6.00%	1.00%	7.00%	4.86%
Philadelphia Suburban	9.17%	10.00%	5.50%	6.50%	7.79%
Average	6.44%	6.83%	2.83%	6.17%	5.57%

Ranges

<u>COMPANY</u>	Overall <u>Average</u>	Hi/Low		
		<u>High</u>	<u>Low*</u>	<u>Average</u> <u>Median</u>
American States Water Company	3.63%	5.15%	1.09%	3.12% 4.35%
California Water Service	3.89%	7.00%	1.50%	4.25% 4.00%
Philadelphia Suburban	4.24%	10.00%	0.12%	5.06% 4.24%
Average	3.92%	7.38%	0.90%	4.14% 4.20%

FirstCall Projected EPS Growth Rates

For companies without Value Line projections

<u>COMPANY</u>	
Middlesex Water	7.00%
Southwest Water	9.00%

Note: Negative growth rates not included in averages and are excluded from determination of "Low".

Source: Schedule MB-6, pages 2-4.

BURDETTE - DIRECT
WR-2003-0500 Missouri-American Water Company

Discounted Cash Flow Growth Parameters
American States Water Company

Historical Growth

Compound Growth

<u>Historical Data</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>
1996	1.13	0.82	11.01
1997	1.04	0.83	11.24
1998	1.08	0.84	11.48
1999	1.19	0.85	11.82
2000	1.28	0.86	12.74
2001	1.35	0.87	13.22
2002	1.34	0.87	14.05

Retention Growth

<u>Retention Ratio (b)</u>	<u>Equity Return (r)</u>	<u>Growth (b*r)</u>
0.274		
0.202		
0.222	9.40%	2.09%
0.286	10.10%	2.89%
0.328	9.30%	3.05%
0.356	10.10%	3.59%
0.351	9.50%	3.33%

Compound Growth Rates

'96-2000	3.17%	1.20%	3.72%
'97-2001	6.74%	1.18%	4.14%
'98-2002	5.54%	0.88%	5.18%

Ave. Internal
Growth (br): 2.99%

ADD: External
Growth (sv): 1.13%

Ave. Compound Gr. **5.15%** **1.09%** **4.35%**

Historical
"br + sv" Gr. **4.12%**

Value Line EPS DPS BVPS
 Historical Gr. **3.25%** **1.25%** **4.50%**

(Avg of 5 and 10 yr. if both are available)

Projected Growth

Retention Growth Calculation

<u>Value Line</u>	<u>EPS</u>	<u>DPS</u>	<u>BVPS</u>
2003	\$1.30	\$0.88	\$14.90
2004	1.45	0.90	14.90
2006-08 est'd	1.85	0.98	17.70

<u>Retention Ratio (b)</u>	<u>Equity Return (r)</u>	<u>Growth (b*r)</u>
0.323	8.50%	2.75%
0.379	9.50%	3.60%
0.470	10.00%	4.70%

Analyst's Estimates

Value Line	6.00%	2.00%	5.00%
First Call	3.00%		
Average			
<u>Proj'd Growth</u>	<u>4.50%</u>	<u>2.00%</u>	<u>5.00%</u>

Projected
Growth (br): 4.70%

ADD: External
Growth (sv): 0.00%

Projected
"br + sv" Gr. **4.70%**

Note: Negative (b*r) growth is not included in retention growth averages.

SOURCE: The Value Line Investment Survey; C.A. Turner Utility Reports;
 First Call Corporation

Schedule MB- 6 (Amended)

Page 2 of 4

BURDETTE - DIRECT**WR-2003-0500 Missouri-American Water Company****Capital Asset Pricing Model (CAPM) Cost of Common Equity (Ke)**Formula: $Ke = Rf + \text{beta}(Rm - Rf)$ **Market Return Equal to Ibbotsons Large Company Stocks**

Risk Free Rate (Rf) = 5.60%
Return on the Market (Rm) = 12.20% 6.60%

	<u>Beta</u>	<u>CAPM Ke</u>
American States Water Company	0.60	9.56%
California Water Service	0.60	9.56%
Middlesex Water	0.55	9.23%
Philadelphia Suburban	0.70	10.22%
Southwest Water	0.65	9.89%
Average CAPM cost of equity:		9.69%

Market Return Equal to Average of Large and Small Company Stocks

Risk Free Rate (Rf) = 5.60%
Return on the Market (Rm) = 14.55% 8.95%

	<u>Beta</u>	<u>CAPM Ke</u>
American States Water Company	0.60	10.97%
California Water Service	0.60	10.97%
Middlesex Water	0.55	10.52%
Philadelphia Suburban	0.70	11.87%
Southwest Water	0.65	11.42%
Average CAPM cost of equity:		11.15%

Source: Value Line Investment Survey; Ibbotson Associates;

BURDETTE - DIRECT

WR-2003-0500 Missouri-American Water Company

Capital Structure, Weighted Average Cost of Capital

Pre-Tax Interest Coverage 12/31/02

	<u>Amount</u>	<u>Percent</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Common Stock Equity	\$ 210,931,111	40.41%	9.50%	3.84%	10.00%	4.04%
Preferred Stock	\$ 2,692,000	0.52%	9.06%	0.05%	9.06%	0.05%
Long-term debt	\$ 290,130,000	55.58%	6.23%	3.46%	6.23%	3.46%
Short-term Debt	\$ 18,269,200	3.50%	2.83%	0.10%	2.83%	0.10%
	<u>\$ 522,022,311</u>	<u>100.00%</u>		<u>7.45%</u>		<u>7.65%</u>

Pre-Tax Interest Coverage

Tax factor = 1.62

	<u>Weighted Cost</u>	<u>Pre-tax Weighted Cost</u>
Common Stock Equity	3.84%	6.23%
Preferred stock	0.05%	0.08%
Long-term debt	3.46%	3.46%
Short-term debt	0.10%	0.10%
Total	7.45%	9.87%

Pre-tax weighted cost: 9.87%

Cost of Debt: 3.56%

Pre-tax Interest Coverage	2.77
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Source: Schedules MB-2, MB-5, MB-6, MB-8.

BURDETTE - DIRECT**WR-2003-0500 Missouri-American Water Company****Missouri-American Water Company****Capital Structure as of 30 November 2003**

	<u>Amount</u>	<u>Percent</u>
Common Stock Equity	\$ 220,162,731	43.94%
Preferred Stock	\$ 2,644,877	0.53%
Long-term debt	\$ 278,228,791	55.53%
Short-term Debt	\$0	0.00%
	<u>\$ 501,036,399</u>	<u>100.00%</u>

Common Stock Equity

Common Stock	\$ 95,994,075
Paid-in Capital	\$ 2,764,716
Retained Earnings	<u>\$ 121,403,940</u>
	<u>\$ 220,162,731</u>

Source: Company response to OPC updated data requests 2001, 2002, 2003, 2005

BURDETTE - DIRECT**WR-2003-0500 Missouri-American Water Company****Missouri-American Water Company****Level of Short-term Debt as of 30 November 2003**

	<u>Balance</u>	<u>Annual Cost</u>	<u>Effective Interest Rate</u>	<u>CWIP</u>	<u>Balance less CWIP</u>
Jul-02	\$53,320,878	\$114,704	0.215%	\$26,729,557	\$26,591,321
Aug-02	\$51,381,498	\$100,824	0.196%	\$28,793,704	\$22,587,794
Sep-02	\$487,760	\$105,782	21.687%	\$22,578,864	(\$22,091,104)
Oct-02	\$0	\$10,091		\$23,999,788	(\$23,999,788)
Nov-02	\$0	\$13,980		\$24,332,083	(\$24,332,083)
Dec-02	\$5,428,656	\$21,244	0.391%	\$13,901,048	(\$8,472,392)
Jan-03	\$13,015,699	\$17,345	0.133%	\$15,246,222	(\$2,230,523)
Feb-03	\$10,123,068	\$20,554	0.203%	\$16,049,908	(\$5,926,840)
Mar-03	\$7,685,277	\$22,332	0.291%	\$17,673,995	(\$9,988,718)
Apr-03	\$1,895,400	\$14,205	0.749%	\$19,470,953	(\$17,575,553)
May-03	\$5,234,104	\$12,306	0.235%	\$21,857,579	(\$16,623,475)
Jun-03	\$3,656,449	\$10,009	0.274%	\$18,011,243	(\$14,354,794)
Jul-03	\$2,075,786	\$10,072	0.485%	\$19,586,658	(\$17,510,872)
Aug-03	\$967,039	\$10,411	1.077%	\$19,448,389	(\$18,481,350)
Sep-03	\$1,376,115	\$9,613	0.699%	\$22,590,041	(\$21,213,926)
Oct-03	\$0	\$19,380		\$22,017,503	(\$22,017,503)
Nov-03	\$0	\$8,064		\$21,857,579	(\$21,857,579)
Average:	\$3,835,745	\$12,858		\$17,817,506	(\$16,458,115)

Source: Company response to OPC data request 2004 (updated)

BURDETTE - DIRECT**WR-2003-0500 Missouri-American Water Company****Capital Structure, Weighted Average Cost of Capital
30 November 2003 (True-up)**

	<u>Amount</u>	<u>Percent</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Common Stock Equity	\$ 220,162,731	43.94%	9.50%	4.17%
Preferred Stock	\$ 2,644,877	0.53%	9.12%	0.05%
Long-term debt	\$ 278,228,791	55.53%	6.22%	3.45%
Short-term Debt	\$ -	0.00%		0.00%
	<u>\$ 501,036,399</u>	<u>100.00%</u>		<u>7.68%</u>

Pre-Tax Interest Coverage

Tax factor = 1.62

	<u>Weighted Cost</u>	<u>Pre-tax Weighted Cost</u>
Common Stock Equity	4.17%	6.78%
Preferred stock	0.05%	0.08%
Long-term debt	3.45%	3.45%
Short-term debt	0.00%	0.00%
Total	7.68%	10.31%

Pre-tax weighted cost: 10.31%

Cost of Debt: 3.45%

Pre-tax Interest Coverage	2.98
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Source: Schedules MB-2, MB-5, MB-6, MB-8.