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Issues: Return on Equity

Witness: Billie Sue LaConte

Sponsoring Party: BJC Healthcare Type of Exhibit: Direct Testimony

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SR-2011-0338

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OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's)	
Request for Authority to Implement A General Rate)	File No. WR-2011-0337
Increase for Water and Sewer Service Provided in)	File No. SR-2011-0338
Missouri Service Areas	}	

DIRECT TESTIMONY AND SCHEDULES

OF

BILLIE SUE LACONTE

ON BEHALF OF

BJC HEALTHCARE

Date 2-21-12 Reporter JL File No. WR - 2011-033

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	BJC Discounted Cash Flow Method	
	DCF Model	
	Capital Asset Pricing Model	
	Risk Factors	

- 1 BJC's Recommended Return on Equity
- 2 Q WHAT RETURN ON EQUITY DID YOU CALCULATE FOR MAWC?
- 3 A Based on my analysis, I have determined a return on equity of 9.0%. The components of
- 4 this are shown in Table 1.

Table 1

Recommended Return on Equity

Method	<u>Median</u>	Avg.
DCF Method-Constant Growth (Analyst Growth) DCF Method-Constant Growth (GDP Growth)	9.8% 8.4	10.1% 8.7
DCF Method-Two-stage Growth (GDP Growth)	8.2	8.4
CAPM	9.1	9.2
Average	8.9%	9.1%

5 Q HOW DID YOU CALCULATE THE RECOMMENDED RETURN ON EQUITY?

I used two Discounted Cash Flow (DCF) methods and the Capital Asset Pricing Method

(CAPM). These are all standard methods (or formulas) that have been used for years.

Where people differ is in the choices of the inputs: the group of comparable companies; the time period for calculating stock price; the estimated growth rate (or rates); the risk associated with various stocks and so on. Those choices affect the numerical results.

Where I differ from MAWC is in the *values* of some inputs and, therefore, the results.

1 In other words, the expected return equals (1) the current dividend rate, plus (2) the 2 expected growth in dividends. The expected growth in dividends is also measured by 3 the expected growth in earnings. 4 Q HOW DID YOU DETERMINE THE VALUES FOR THE STOCK PRICE, GROWTH RATE AND 5 **DIVIDEND?** 6 Α The stock prices are based on the average stock prices from August 10, 2011 to 7 November 10, 2011, from Yahoo Finance. The growth rates are the forecast EPS growth 8 rate for the next five years from Value Line Investment Analyzer (Value Line), Reuters and Yahoo Finance. The dividends are based on estimated dividends for 2011, also from 9 10 Value Line. WHAT COMPANIES DID YOU INCLUDE IN YOUR DCF ANALYSIS? 11 Q I used the same list of regulated public water utilities as used by MAWC's witness, 12 Pauline Ahern. 13

Table 2

Regulated Public Water Utilities

American States Water
American Water Works
Aqua America
Artesian Resources Corporation
California Water
Connecticut Water Services
Middlesex Water
SJW Corporation
York Water Company

1	Q	WHY IS THIS USED?
2	Α	The underlying assumption is that mature, established companies can grow at a rate
3		that is similar to or lower than the GDP growth rate. While some companies in the
4		economy will grow faster than GDP for a while, this cannot happen consistently over a
5		long period.
6	Q	HOW DID YOU DETERMINE THE FORECAST LONG-TERM GDP GROWTH RATE?
7	Α	The long-term GDP growth rate of 5.2% is based on The Congressional Budget Office's
8		report The Budget and Economic Outlook: Fiscal Years 2011-2021, page 29, Table 2-1.
9	Q	WHAT IS THE ROE USING THIS METHOD?
10	Α	The estimated RoE is:

Table 4 Estimated RoE Single Stage DCF with Long-term GDP Growth

	Estimated
Utility	<u>RoE</u>
American States Water	8.4%
American Water Works	8.3
Aqua America	8.1
Artesian Resources Corp.	9.6
California Water	8.7
Connecticut Water Services	9.3
Middlesex Water	9.4
SJW Corporation	7.8
York Water Co.	8.3
Average	8.7
Median	8.4%

1 Q WHAT IS YOUR ESTIMATED ROE USING THE TWO-STAGE DCF METHOD?

2 A The estimated RoE is 8.2% using the two-stage model.

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Table 5

<u>Estimated RoE Using Two-Stage DCF Method</u>

Utility	Estimated <u>RoE</u>
American States Water	8.2%
American Water Works	8.2
Aqua America	8.1
Artesian Resources Corporation	9.4
California Water	8.4
Connecticut Water Services	8.8
Middlesex Water	8.9
SJW Corporation	7.7
York Water Company	7.9
Average	8.4
Median	8.2%

Compared to the single stage method, the two-stage method provides a more realistic expectation of growth, in the short-term and the long-term. A regulated utility's RoE that is based solely on analysts' short-term forecasts may overstate (or understate) the expected RoE. For example, the single stage DCF using analysts' forecasts produces a RoE of 5.5% for Middlesex Water, and a RoE of 9.4% using forecast GDP, or a 390 basis point difference. The two-stage method produces a RoE of 8.9%. The lower short-term growth is recognized, but it does not dictate the estimated RoE for the long-term.

Т	Q	WHAT MARKET RISK PREMION (MRP) DID YOU USE IN YOUR ANALYSIS?
2	Α	I used 6.7%. This is the historical MRP, as shown in Ibbotson's Stocks, Bonds, Bills and
3		Inflation, 2010 Yearbook.
4	Q	WHAT IS BETA?
5	Α	Beta (B) measures the volatility of a security in comparison to the market as a whole. A
6		beta equal to 1.00 means that a stock's price fluctuates exactly the same as the market
7		as a whole. A beta higher than 1.00 implies the stock's price is more volatile than the
8		market; a beta less than 1.00 implies the security's price is less volatile than the market.
9		For example, the beta for the Las Vegas Sands, a casino company, is 2.70, whereas the
10		beta for American Water Works (MAWC's parent corporation) is 0.65.
11	Q	HOW DID YOU DETERMINE BETA?
12	Α	To determine the beta, I reviewed the betas of the same group of companies that I used
13		in my DCF analysis. Based on this proxy group, the median beta is 0.70 and the average
14		beta is 0.72.
15		

1		Value Line betas have been adjusted and therefore reflect each utility's risk, there is no
2		need to "re-adjust" them.
3	Risk Fo	actors
4	Q	ARE THERE OTHER FACTORS TO CONSIDER WHEN DETERMINING THE COMPANY'S
5		ROE?
6	Α	Yes, the Company's risk profile, including business risk and financial risk, may affect a
7		utility's estimated RoE.
8	Q	PLEASE COMMENT ON MAWC'S BUSINESS RISK PROFILE.
9	Α	As a regulated utility, MAWC's business risk profile is strong. Its parent company's
10		business risk profile, per Standard and Poor's (S&P), is excellent (see Schedule PMA-10,
11		Page 2). S&P uses five basic characteristics to determine business risk, including
12		regulation, markets, operation, competitiveness and management. Regulated water
13		utilities usually have an excellent or strong business risk, since they have a defined
14		service territory that is generally not affected by competition, they provide an essential
15		service and they have regulators that want to support the utility's financial profile.

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Table 6

Key Financial Ratios

	FFO/ <u>Debt</u>	Debt/ <u>EBITDA</u>	Debt/ <u>Capital</u>		
11.3% RoE	25%	3.12	49.4%		
9.0% RoE	23%	3.51	49.4%		
S&P Range	20%-30%	3-4	45%-50%		

- 1 The ratios using a 9.0% RoE are within the same range as the ratios using an 11.3% RoE.
- 2 The lower RoE should not warrant a change to its bond rating. In fact, the ratios for
- 3 MAWC suggest it has lower financial risk than that of its parent company (significant
- 4 versus aggressive, based on S&P's ratings method). The details of Table 6 are included
- 5 in Schedule BSL-5.
- 6 Q SHOULD MAWC'S ROE BE ADJUSTED TO REFLECT ITS RISK PROFILE?
- 7 A No. As explained above, MAWC's risk profile as related to the comparable group of
- 8 companies is similar and does not require any adjustment to my recommended RoE.
- 9 Q PLEASE SUMMARIZE YOUR TESTIMONY.
- 10 A I have estimated a return on equity for MAWC of 9.0%. Determining the appropriate
- return on equity for a utility is not an exact science; one must take into consideration

Experience of Billie S. LaConte

Ms. LaConte joined Drazen Consulting Group, Inc. in May 1995. Her work has focused on cost allocation, rate design, sales and price forecasts, power cost forecasting, electric restructuring issues, cost of capital issues and contract interpretation.

Ms. LaConte has advised clients on economic and strategic issues concerning the natural gas pipeline, oil pipeline, electric, waste water and water industries. She has prepared cost allocation and rate design studies to provide timely support to clients engaged in settlement negotiations in electric and gas utility proceedings. Ms. LaConte has prepared cost of service studies for wastewater utilities. She has provided power cost forecasting studies to assist clients in project planning, negotiating contracts with electric utilities for standby services and interruptible rates. She has prepared studies on electric and gas utilities' performance-based rates (PBR) and benchmarking programs to evaluate their success and to provide recommendations on methods to be used. Ms. LaConte has worked on contract interpretation to resolve contract disputes for several clients.

Ms. LaConte has provided economic and strategic analysis and contract interpretation for clients located in several jurisdictions, including Georgia, Maine, Iowa, Virginia, Alberta, Québec and Nova Scotia. She has provided financial and cost of service analysis for natural gas pipelines certificate approval from the Federal Energy and Regulatory Commission (FERC) and the Canadian National Energy Board (NEB). Ms. LaConte has testified before the Missouri Public Service Commission on cost allocation, rate design, cost of capital and other matters. She testified before the Alberta Energy and Utilities Board on power cost forecasting issues, electric restructuring issues, sales and price forecasts and cost allocation issues. She has similarly testified before the Iowa Utilities Board, the St. Louis Metropolitan Sewer District Commission, the Nova Scotia Utility and Review Board and the Arkansas Public Service Commission.

Estimated RoE Single Stage DCF with Analyst Growth Rates

	Close			Analysts' Estimated Growth Rates				
	8/2011-11/2011	2011	Div.	Value		Yahoo		
<u>Utility</u>	Avg. Stock Price	<u>Dividend</u>	<u>Yield</u>	<u>Line</u>	Reuters	<u>Finance</u>	<u>Average</u>	RoE
American States Water	34.04	1.10	3.2%	5.50%	7.15%	7.15%	6.60%	9.8%
American Water Works	29.63	0.91	3.1%	9.50%	11.09%	8.03%	9.54%	12.6%
Aqua America	21.59	0.62	2.9%	10.50%	7.60%	6.67%	8.26%	11.1%
Artesian Resources Corporation	17,91	0.79	4.4%	3.60%	5.00%	4.00%	4.20%	8.6%
California Water	17.68	0.62	3.5%	6.00%	7.00%	15.00%	9.33%	12.8%
Connecticut Water Services	22.62	0.93	4.1%	4.00%	5.50%	3.00%	4.17%	8.3%
Middlesex Water	17.52	0.73	4.2%	6.00%	-5.00%	3.00%	1.33%	5.5%
SJW Corporation	26.27	0.69	2.6%	7.50%	n/a	14.00%	10.75%	13.4%
York Water Company	16.85	0.52	3.1%	6.00%	6.00%	6.00%	6.00%	9.1%
Average							6.7%	10.1%
Median							6.6%	9.8%

Estimated RoE Using Single Stage DCF with Long Term GDP Growth

	Close 8/2011-11/2011	2011	Dividend	Long Term GDP	Estimated
<u>Utility</u>	Avg. Stock Price	<u>Dividend</u>	<u>Yield</u>	Growth Rate*	<u>RoE</u>
American States Water	34.04	1.10	3.2%	5.20%	8.4%
American Water	29.63	0.91	3.1%	5.20%	8.3%
Aqua America	21.59	0.62	2.9%	5.20%	8.1%
Artesian Resources Corporation	on 17.91	0.79	4.4%	5.20%	9.6%
California Water	17.68	0.62	3.5%	5.20%	8.7%
Connecticut Water Services	22.62	0.93	4.1%	5.20%	9.3%
Middlesex Water	17.52	0.73	4.2%	5.20%	9.4%
SJW Corporation	26.27	0.69	2.6%	5.20%	7.8%
York Water Company	16.85	0.52	3.1%	5.20%	8.3%
Average					8.7%
Median					8.4%

^{*} Forecast long-term GDP growth rate from Congressional Budget Office, Budget and Economic Outlook: Fiscal Years 2011 to 2021.

Estimated RoE Using Two-Stage DCF Model with Long Term GDP

Utility	Close 8/2011-11/2011 Avg. Stock Price	2011 <u>Dividend</u>	Est. 2015 <u>Dividend</u>	Annual Change to 2015	Recent <u>Price</u>	2011 Year 1 <u>Div.</u>	2012 Year 2 <u>Div.</u>	2013 Year 3 <u>Div.</u>	2014 Year 4 <u>Div.</u>	2015 Year 5 <u>Div.</u>	Year 6-150 Div Growth	IRR Years 0-150 <u>RoE</u>
American States Water	34.04	1.10	1.28	0.05	(34.04)	1.10	1.15	1.19	1.24	1.28	5.20%	8.2%
American Water	29.63	0.91	1.10	0.05	(29.63)	0.91	0.96	1.01	1.05	1.10	5.20%	8.2%
Aqua America	21.59	0.62	0.78	0.04	(21.59)	0.62	0.66	0.70	0.74	0.78	5.20%	8.1%
Artesian Resources Corporation	on * 17.91	0.79	-	0.03	(17.91)	0.79	0.82	0.85	0.88	0.92	5.20%	9.4%
California Water	17.68	0.62	0.70	0.02	(17.68)	0.62	0.64	0.66	0.68	0.70	5.20%	8.4%
Connecticut Water Services *	22.62	0.93	-	0.02	(22.62)	0.93	0.95	0.96	0.98	0.99	5.20%	8.8%
Middlesex Water	17.52	0.73	0.80	0.02	(17.52)	0.73	0.75	0.77	0.78	0.80	5.20%	8.9%
SJW Corporation	26.27	0.69	0.82	0.03	(26.27)	0.69	0.72	0.76	0.79	0.82	5.20%	7.7%
York Water Company *	16.85	0.52		0.01	(16.85)	0.52	0.53	0.54	0.55	0.56	5.20%	7.9%
Average												8.4%
Median	•											8.2%

^{*} Estimated 2015 dividend not available. Annual dividend growth (col. 5) based on historical 5 year dividend growth rate.

Estimate RoE using CAPM

<u>Line</u>	<u>Utility</u>	Value Line <u>Beta</u>
1	American States Water	0.75
2	American Water	0.65
3	Aqua America	0.65
4	Artesian Resources Corporation	0.60
5	California Water	0.70
6	Connecticut Water Services	0.80
7	Middlesex Water	0.75
8	SJW Corporation	0.90
9	York Water Company	0.70
10	Group average	0.72
11	Group median	0.70
~	Group mount	0,, 0
12	Market risk premium	6.70%
13	Equity risk premium - average beta	4.84%
	In. 10 * In. 12	
14	Equity risk premium-median beta	4.69%
45	In. 11 * in. 12	4 200/
15	Risk free rate	4.38%
16	Estimated RoE-average beta	9.22%
	In. 13 + In. 15	
17	Estimated RoE-median beta	9.07%
	THE W. P. P. LEWIS A. P.	

Market risk premium is historical market risk premium as shown in lbbotson SBBI 2011 Valuation Yearbook.

Risk free rate based on forecast yield of US 30 treasury bond for May 2012, as of November, 2011.

Effect of Lower Return on Equity

<u>Line</u>	Type of Capital		<u>Amount</u>	<u>Ratio</u>	Cost Rate	Wtd. RoR
1	Long-Term Debt	Schedule PMA-1,p.1	\$423,114,710	49.4%	6.36%	3.14%
2	Preferred Stock	Schedule PMA-1,p.1	2,306,034	0.3%	9.23%	0.02%
3	Common Equity	Schedule PMA-1,p.1	431,741,678	50.4%	11.30%	5.69%
4	Total		\$857,162,422	100.0%		8.86%
	Type of Capital		<u>Amount</u>	<u>Ratio</u>	Cost Rate	Wtd. RoR
5	Long-Term Debt		\$423,114,710	49.4%	6.36%	3.14%
6	Preferred Stock		2,306,034	0.3%	9.23%	0.02%
7	Common Equity		431,741,678	50.4%	9.00%	4.53%
8	Total		\$857,162,422	100.0%		7.70%
9	Rate base	Schedule CAS-1,p.1	\$849,106,802			
10	Return 11.3% RoE	In. 9 * In.4, c. 4	75,196,352			
11	Return 9.0% RoE	in. 9 * In. 8, c.4	65,359,616			
12	Difference		\$9,836,736			
13	Debt		\$423,114,710			
			11.3% RoE	<u>9.0% RoE</u>		
14	Operating income	Schedule CAS-2, p.1	\$75,145,964	\$65,309,228		
15	Depreciation	Schedule CAS-2, p.1	30,023,171	30,023,171		
16	Amortization	Schedule CAS-2, p.1	500,278	500,278		
17	Deferred income tax	Schedule CAS-2, p.1	449,557	449,557		
18	Fund from operations (FFO)		\$106,118,970	\$96,282,234		
19	FFO/Debt	in. 18 / in. 13	25%	23%		
			11.3% RoE	<u>9.0% RoE</u>		
20	Operating income		\$75,145,964	\$65,309,228		
21	Depreciation		30,023,171	30,023,171		
22	Amortization		500,278	500,278		
23	Federal income tax	Schedule CAS-2, p.1	26,095,008	21,211,600		
24	State income tax	Schedule CAS-2, p.1	3,990,986	3,449,995		
25	25 Earnings before inc. tax, depr/amort.		\$135,755,407	\$120,494,273		
26	Debt/EBITDA		3.12	3.51		

Notes: 9.0% RoE federal tax estimated using 33.175%; State tax estimated using 5.213% tax rate.

Tax rates from Schedule CAS-9, p.1.

Rate base from Schedule CAS-1, page 1.