Exhibit No.:	
Issues:	Capital Structure and Overall Rate of Return
Witness:	Scott W. Rungren
Exhibit Type:	Direct
Sponsoring Party:	Missouri-American Water Company
Case No.:	WR-2017-0285 SR-2017-0286
Date:	June 30, 2017

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2017-0285
CASE NO. SR-2017-0286

DIRECT TESTIMONY

OF

SCOTT W. RUNGREN

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

Exhibit No. 33
Date 3/8/18 Reporter MK
File No. WR-2017-0285

Exhibit 33
WR-2017-0285
Direct Testimony of Scott W. Rungren

DIRECT TESTIMONY
SCOTT W. RUNGREN
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2017-0285
CASE NO. SR-2017-0286

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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	)))))	CASE NO. WR-2017-0285 CASE NO. SR-2017-0286

AFFIDAVIT OF SCOTT W. RUNGREN

Scott W. Rungren, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Direct Testimony of Scott W. Rungren"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge.

Scott W. Rungren

Scott W. Rungren

State of Missouri
County of St. Louis
SUBSCRIBED and sworn to
Before me this 5th **day of** June **2017.**

Mary Beth Hercules

Notary Public

My commission expires:

MARY BETH HERCULES
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires April 26, 2020
Commission # 96546828

DIRECT TESTIMONY

SCOTT W. RUNGREN

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Scott W. Rungren, and my business address is 727 Craig Road, St. Louis, MO, 63141.

Q. By whom are you employed and in what capacity?

A. I am employed by American Water Works Service Company ("Service Company") and my title is Principal, Regulatory Analyst. The Service Company is a subsidiary of American Water Works Company, Inc. ("American Water") that provides support services to American Water's utility subsidiaries

Q. Please summarize your educational background and professional experience.

A. In May of 1983, I received a Bachelor of Science degree in Business Administration with a major in Energy Management from Eastern Illinois University. In May of 1986, I received a Master of Business Administration degree with a specialization in Finance from Northern Illinois University. From 1986 to 1999, I was employed by the Illinois Commerce Commission ("Illinois Commission"). I held various positions while employed there. I joined the Finance Department of the Illinois Commission in 1987, and was promoted to Senior Financial Analyst in 1989. My principal responsibility in that role was to analyze the cost of capital, financial condition and corporate structure

of electric, gas, telephone, and water utilities using dividend discount and risk premium models. In 1993, I transferred to the Energy Programs Division where I performed research and analysis of the integrated resource plans (IRPs) filed by Illinois electric utilities. In 1995 I returned to the Finance Department in the role of Senior Financial Analyst. I remained in the Finance Department at the Illinois Commission until February of 1999. In March of 1999, I began employment with Cinergy Corp., working in the Retail Commodity Services group and focusing on their Real Time Pricing program. In 2001, I began performing long-run generation planning studies for Cinergy's Kentucky and Indiana service areas. In 2006, by which time Cinergy Corp. had merged with Duke Energy, I began working in the Rates Department as a Rates Coordinator, assisting with the development of cost of service studies for the electric and gas operations of Duke Energy Ohio and Duke Energy Kentucky. I also prepared various rate and revenue analyses in that role. In May of 2007, I joined the Service Company as a Senior Financial Analyst. My current duties as a Rates and Regulatory Analyst with the Service Company include the preparation of reports required by the various regulatory commissions governing the jurisdictions in which American Water operates, and assisting in the preparation of financing and rate-related filings for American Water's regulated operating companies.

Q. Have you previously testified in regulatory matters?

A. Yes, I have presented testimony before the Missouri Public Service Commission ("MoPSC" or "Commission"), and have testified before the Illinois Commerce Commission, the Iowa Utilities Board, the Indiana Utility Regulatory Commission, the Kentucky Public Service Commission, and the Public Utilities Commission of Ohio.

Q. What is the purpose of your direct testimony in this proceeding?

A. The purpose of my testimony is to present the recommended capital structure to be used for computing Missouri-American Water Company's ("Company" or "MAWC") weighted average cost of capital ("WACC"). The WACC is used as the authorized overall rate of return on rate base. The Company's WACC reflects, among other things, the rate of return on common equity recommendation presented in the Direct Testimony of MAWC witness Ms. Ann Bulkley.

Q. Have you prepared any schedules to accompany your testimony?

A. Yes, I have prepared Schedule SWR-1 to show the Company's WACC and supporting calculations for the 12 months ended December 31, 2016, the 12 months ending May 31, 2018, and the 12 months ending May 31, 2019 ("future test year"). The WACC for the future test year reflects the use of a thirteen-month average to compute the cost and balance for each capital component. The WACC for the future test year is used as the rate of return on rate base in this case. Schedule SWR-1 also shows the Company's cost of long-term debt, cost of preferred stock, and balance of common equity for each of the three time periods noted above.

II. RECOMMENDED CAPITAL STRUCTURE AND OVERALL RATE OF RETURN

Q. What capital structure do you recommend be used for computing the Company's WACC for ratemaking purposes?

A. Because this proceeding will set rates for future service, the capital structure components should be developed from estimates for the period during which those rates will be in effect. As a starting point, I used MAWC's actual capital structure as of December 31, 2016. I then adjusted the component balances in that capital structure to reflect all changes expected to occur by May 31, 2019. The pro forma changes made to each capital component are discussed below. In addition, the capital component balances were calculated using 13-month averages for the future test year. The pro forma May 31, 2019 capital structure is composed of 48.92% long-term debt, 0.05% preferred stock, and 51.03% common equity, as shown on Schedule SWR-1, page 1. This capital structure should be used to calculate the WACC because it reflects the capital that will be in place to fund the Company's rate base.

Q. Do you believe that MAWC's thirteen-month average capital structure for the future test year is reasonable for ratemaking purposes?

A. Yes, I do.

Q. How did you determine that capital structure is reasonable?

A. To determine whether MAWC's future test year capital structure is reasonable for ratemaking purposes, I examined the average common equity ratios of the proxy group of eight water companies that MAWC witness Ms. Ann Bulkley relied on to perform her cost of equity analysis in this case. Specifically, I compared MAWC's common equity ratio in my proposed capital structure to the average equity ratio of the water companies in Ms. Bulkley's proxy group at December 31, 2016. The equity ratios for each company in the proxy group were obtained from the Value Line Investment

Survey reports published on April 14, 2017. These eight water utilities and their corresponding equity ratios are shown in the table below:

Company	Equity Ratio at 12/31/16
American States Water	60.60%
American Water Works	47.50%
Aqua America	51.60%
California Water	55.40%
Connecticut Water Service	54.40%
Middlesex Water	61.50%
SJW Corp.	49.30%
York Water	57.40%
Average	54.71%

As of the month ending December 2016, the average common equity ratio of the proxy group was 54.71%, with a standard deviation of 4.74%, representing a range of 49.98% - 59.45% around the Value Line mean of 54.71%. Thus, MAWC's future test year common equity ratio of 51.03% is within this range, and is actually slightly lower than the average of the peer group noted above. MAWC's future test year equity ratio is also close to the average common equity ratio of the proxy group when calculated using data from each company's 10-K report. As shown on Schedule AEB-10, accompanying the Direct Testimony of Ms. Bulkley, based on company 10-K reports the average equity ratio of the proxy group (including American Water) as of year-end 2016 was 53.79%.

To further check the reasonableness of my proposed capital structure, I also examined Value Line's projected equity ratios for the eight water utilities as published in the same

Value Line reports discussed above. Based on the Value Line projections the average common equity ratio for the eight water utilities will be 54.5% in 2017, 53.9% in 2018, and 53.7% over the 2020-2022 period. Thus, MAWC's future test year equity ratio is also reasonably close to Value Line's projected equity ratios for the eight water utilities.

Based on these comparisons, I concluded that MAWC's capital structure for the future test year is reasonable and, therefore, should be used to compute the Company's WACC in this proceeding.

Q. The capital structure you recommend for the future test year in this case was calculated using projected data for MAWC. Please explain why you did not use American Water's consolidated capital structure to calculate MAWC's WACC.

A. It is more appropriate to use MAWC's capital structure in this case for three fundamental reasons; 1) MAWC is a separate corporate entity that issues its own debt and common stock and, therefore, has an independently-determined capital structure, 2) MAWC's stand-alone capital structure comprises the capital that actually finances MAWC's jurisdictional rate base, to which the overall rate of return set in this proceeding will be applied, and 3) MAWC's stand-alone capital structure, as noted above, is in line with the capital structure ratios maintained, on average, by the group of publicly-traded U.S. water utilities.

Q. Please explain how MAWC manages its capital structure and makes financing decisions.

A. Although it is a wholly-owned subsidiary of American Water, MAWC has its own board of directors and, in conjunction with all of its financing requirements, MAWC separately considers the appropriate mix of debt, preferred stock and common equity appropriate for its capital structure. MAWC's determination of whether to issue equity or debt, and the type of debt, is made by MAWC based on its capital structure objectives and on capital market conditions at the time the security is to be issued, and I am unaware of an instance in which those decisions were overridden by the parent company.

In addition, MAWC has the ability to obtain the most favorable financing terms possible. The Financial Services Agreement ("FSA") between MAWC and AWCC explicitly permits MAWC to issue debt to non-affiliated entities. Paragraph 7 of the FSA, which addresses the issue of non-exclusivity, specifically states:

> "Nothing in this Agreement prohibits or restricts the Company from borrowing from third parties, or obtaining services described in this Agreement from third parties, whenever and on whatever terms it deems appropriate."

Thus, MAWC will not issue Notes to American Water's financing subsidiary, AWCC, unless it can determine, based on market conditions applicable at the time, that such issuance will result in the lowest overall cost available to MAWC when compared to securities of comparable type, maturity, and terms. With respect to equity capital, MAWC retains a significant portion of its earnings in its business, with the remainder paid as dividends to the parent, as would be the case in any holding company structure. At the same time, a portion of those dividends is returned to Missouri periodically in

the form of capital infusions by the parent. For example, MAWC has a planned $64,000,000 equity infusion in October 2017 that will be booked to paid-in capital.

Q. You noted that use of MAWC's capital structure, rather than American Water's consolidated capital structure, is appropriate because MAWC's stand-alone capital structure represents the actual capital that finances MAWC's jurisdictional rate base. Why is the actual capital financing MAWC's jurisdictional rate base relevant and appropriate for ratemaking purposes?

A. It is relevant and appropriate for ratemaking purposes because it represents the actual dollars that are financing MAWC's jurisdictional rate base to which the rate of return authorized in this proceeding will be applied. In contrast, the consolidated American Water capital structure contains capital that was not used to finance MAWC's jurisdictional rate base. For example, it includes the long-term debt and equity capital of American Water's other operating water subsidiaries, which finances the jurisdictional rate bases of those other water subsidiaries. It also reflects the capital applicable to American Water's non-regulated businesses.

MAWC's rate base is financed by the mix of capital in MAWC's capital structure and not that of American Water's consolidated capital structure. That is, MAWC's rate base is financed by the capital components that comprise MAWC's capital structure, in the ratio of each capital component's proportion to total capital. It is this capital structure that should be used to determine the weighted cost of each of the individual capital components, because the sum of these weighted component costs is the overall cost of capital (WACC). It is this overall cost of capital that represents the rate of return

MAWC needs to earn on its rate base to satisfy the contractual obligations to, and the return requirements of, its investors. Using the consolidated capital structure of American Water will not ensure that MAWC is provided the proper level of funding to service its various sources of capital, and ensuring that proper level of funding is the primary purpose of determining a utility's WACC.

Q. How would use of American Water's consolidated capital structure, rather than MAWC's capital structure, affect the Commission's ability to establish a reasonable overall allowed rate of return on rate base in this case?

A. For the reasons I explained above, using American Water's consolidated capital structure in place of MAWC's will not produce an overall rate of return on rate base that reflects MAWC's capital costs because the capital component ratios differ. Thus, the overall rate of return authorized by the Commission could be higher or lower than that needed to satisfy the return requirements of MAWC's investors. If that were to occur, then MAWC's overall authorized rate of return may not be reasonable from a regulatory standpoint. When a public utility is authorized a rate of return equal to a reasonable cost of capital, the interests of ratepayers and investors are properly balanced. Therefore, the interests of ratepayers and investors are best served when a utility's allowed rate of return is set equal to a reasonable overall cost of capital.

Q. How does MAWC's future test year capital structure, used to derive the Company's proposed WACC in this case, compare with the capital structures maintained by the publicly-traded U.S. water utilities?

A. As explained previously, the equity ratio of the Company's future test year capital structure is comparable to the average equity ratio of the eight water companies in Ms. Bulkley's proxy group. This is true when examining the proxy group's actual equity ratio at December 31, 2016, as well as the average equity ratios as projected by Value Line for December 31, 2017, for December 31, 2018, and for the 2020-2022 period. As previously noted, MAWC's future test year equity ratio is actually slightly lower than that of the average of the proxy group for each time period analyzed. Thus, these comparisons confirm that MAWC's proposed capital structure is reasonable for ratemaking purposes in this proceeding.

Q. How does American Water's consolidated company capital structure compare with the capital structures of the publicly-traded U.S. water utilities (i.e., the proxy group)?

A. The American Water consolidated company capital structure reflects a higher level of financial risk relative to the proxy group. American Water's consolidated equity ratio is 47.5% at December 31, 2016, as reported by Value Line, whereas the proxy group average equity ratio is 54.71% which includes American Water. The proxy group equity ratio is 55.74% excluding American Water. American Water's December 31, 2016 capital structure is also more leveraged than MAWC's future test year capital structure, which contains 51.03% common equity.

Q. If MAWC's rates were based on an alternate capital structure, such as American Water's consolidated capital structure, would that affect MAWC's earnings?

A. Yes it would, and the effect would be significant. As I mentioned above, MAWC's rate base is funded by the amounts of debt and equity that comprise its capital structure. Those percentages of debt and equity influence the WACC and, thus, the calculation of MAWC's allowed earnings. Therefore, if rates in this case are set using an equity ratio lower than that supporting MAWC's rate base, MAWC's actual earnings will be lower than that resulting from use of MAWC's actual capital structure. In addition, use of the American Water consolidated capital structure would not give MAWC the opportunity to earn the allowed rate of return on equity that the Commission authorizes in this case.

Q. Please provide an example of how this would work.

A. Assume a company has an actual capital structure of 50% equity and 50% debt and has a 10% cost of equity and a 6% cost of debt. Its WACC will be 8%. If, however, rates are set on a 40% equity ratio and a 60% debt ratio using the same capital cost rates, the WACC allowed for ratemaking will be only 7.6%. Given the fact that the 50-50 equity ratio has not changed, the 40 basis point shortfall between the actual WACC and that allowed in ratemaking will produce an actual opportunity rate of return on equity of only 9.2% instead of the 10% deemed reasonable.

Q. How would setting rates based on a lower equity ratio than that which is actually supporting MAWC's rate base affect Missouri-American?

A. The Company would be significantly disadvantaged vis-à-vis other American Water operating utilities in the competition for discretionary capital to invest in MAWC infrastructure and efficiency-improving investments. For example, for comparison Ms.

Bulkley notes that PA-American and NJ-American have capital structures with equity ratios of 51.69% and 52.00%, respectively and have rates in place that reflect those equity ratios. If PA-American and NJ-American are awarded approximately the same ROE as MAWC, but MAWC has an equity ratio that is significantly lower, those two companies will have superior earnings to that of MAWC, all else equal. That would put MAWC at a substantial disadvantage in relation to its sister companies in the competition for discretionary capital to invest in much needed infrastructure. I would also note that Iowa-American Water Company and Illinois-American Water Company have capital structures containing authorized equity ratios of 52.04% and 49.80%, respectively.

Q. Why is MAWC's actual equity ratio higher than the American Water consolidated company equity ratio?

A. Earnings are either retained in the operating company to be invested in its operations, or paid to the parent company as a dividend. In the case of MAWC, a portion of earnings have been retained and reinvested in the operating subsidiary. In other words, earnings retained by MAWC have caused MAWC's common equity to grow over time and, in addition, are actually supporting MAWC's rate base. The table below illustrates the growth in MAWC's retained earnings balance has grown at a compound annual growth rate (CAGR) of 6.11% since 2008:

2016	216,782,519.16
2015	203,747,398.97
2014	192,679,799.78
2013	182,065,537.92
2012	169,604,677.24
2011	158,162,156.16
2010	146,201,758.36
2009	140,212,350.80
2008	134,904,077.40
CAGR	6.11%

Q. How could MAWC bring its actual capital structure into line with a capital structure authorized for ratemaking purposes that has a lower equity ratio than the Company's actual capital structure?

A. To the extent that the Company were to manage its capital structure to a ratemaking equity ratio that is lower than its actual equity ratio, the earnings of MAWC would not be retained for reinvestment in local operations but would be paid to the parent company as a dividend, or a series of dividends. In addition, MAWC could forego equity infusions from the parent company until such time as its actual equity ratio approximated the equity ratio reflected in the capital structure approved for ratemaking purposes.

Q. How would that affect MAWC's risk profile?

A. MAWC would have less cash available to invest in operations and its financial risk profile and ability to respond to any financial downturn or periods of financial stress could be weakened. The better option is for the Commission to set rates based on the Company's stand-alone capital structure, which, not coincidentally, conforms quite well to the average equity ratio of the proxy group of publicly-traded water companies.

Q. Based on the results of industry comparisons you have presented what do you conclude with respect to MAWC's future test year capital structure and the American Water consolidated capital structure?

A. MAWC's future test year capital structure is reasonable from a cost standpoint, based on the proximity of its degree of financial leverage to that of the proxy group. Thus, MAWC's capital structure is reasonable for ratemaking purposes. Further, the use of American Water's consolidated capital structure in this case would warrant a higher allowed rate of return on equity to compensate investors for the higher level of financial risk indicated by American Water's capital structure relative to that of MAWC's. This is explained in greater detail in Ms. Bulkley's Direct Testimony.

Thus, for the three reasons described and supported above, MAWC's capital structure, and not the American Water consolidated company capital structure, should be used to calculate MAWC's WACC.

Q. Did you make any pro forma adjustments to MAWC's principal amount of long-term debt?

A. Yes, I did. The Company's pro forma principal amount of long-term debt at May 31, 2019 reflects two long-term debt issuances projected to occur during the forecast period. The first is a $70,000,000 issuance planned for mid-July 2017. This is expected to be a thirty-year taxable bond issued through American Water Capital Corp. ("AWCC"), which is American Water's financing subsidiary. The assumed interest rate on this new issuance is 4.266%. The second is a $55,000,000 issuance projected

to occur on May 31, 2018. This is also expected to be a thirty-year taxable bond issued through AWCC. The assumed interest rate on this new issuance is 4.34%. Issuance costs are projected to be 1.00% for each of the new bonds. In addition, MAWC's long-term debt carrying value was adjusted to reflect the amortization of debt issuance expense and debt discount that will occur during the pro forma period. The pro forma carrying value of long-term debt at May 31, 2019 is $630,972,137 as shown on Schedule SWR-1, pages 1 and 7. This balance reflects the use of 13-month average balances for face amount outstanding, unamortized debt expense, and unamortized debt discount for the future test year ending May 31, 2019.

Q. What is MAWC's cost of long-term debt?

A. MAWC's cost of long-term debt for the future test year ending May 31, 2019 is 5.24%, as shown on Schedule SWR-1, page 1. The computation of this cost is shown on Schedule SWR-1, page 7.

Q. Please describe AWCC.

A. AWCC is a corporation organized under Delaware law with its principal office in Voorhees, New Jersey. AWCC is a wholly-owned subsidiary of American Water dedicated to providing financial services to American Water's water and wastewater service subsidiaries by aggregating the financing requirements of such subsidiaries, and creating larger and more cost efficient debt issues at more attractive interest rates and lower transaction costs than would otherwise be available for the subsidiaries.

Q. Does AWCC provide a cost-effective means for MAWC to obtain long-term debt financing?

A. Yes, it does. AWCC is generally able to arrange for the issuance of long-term debt on terms more favorable than MAWC could obtain if it issued its own debt outside of AWCC (i.e., obtaining debt from a third-party lender). MAWC also incurs lower transaction costs because of its participation in the AWCC financing arrangement.

Q. How does AWCC recover the costs incurred to provide financial services to MAWC and other participants?

A. The costs incurred by AWCC in connection with each long-term borrowing by AWCC are divided among each participant in proportion to the principal amount of that borrowing that is loaned to that participant. Such issuance costs are less (per dollar of debt issued) than the costs that each participant (including MAWC) would incur by issuing debt on its own behalf.

Q. Please explain the pro forma adjustment you made to MAWC's preferred stock balance.

A. I started with the Company's preferred stock balance as of December 31, 2016 and then made adjustments to reflect sinking fund payments of $250,000 that will occur on November 1, 2017 and November 1, 2018, and the appropriate amortization of the issuance expense that will occur during the pro forma period. The Company's pro forma adjusted preferred stock balance is $597,262, as shown on Schedule SWR-1, pages 1 and 10. This balance reflects the use of 13-month average balances for face

amount outstanding and unamortized issuance expense for the future test year ending May 31, 2019.

Q. What is MAWC's cost of preferred stock?

A. MAWC's cost of preferred stock for the future test year ending May 31, 2019 is 9.70%, as shown on Schedule SWR-1, pages 1 and 10.

Q. Please explain the pro forma adjustments you made to MAWC's common equity balance.

A. Starting with the Company's actual common equity balance at December 31, 2016, I made a pro forma adjustment to reflect MAWC's $64,000,000 common equity infusion planned for October 2017 in the form of paid-in capital from its parent, American Water. American Water currently owns 100% of the outstanding common stock of MAWC. The funds from this equity infusion will be used to pay down short-term debt that had been employed to temporarily fund additions to utility property.

Q. What other adjustment did you make to MAWC's common equity balance?

A. I adjusted MAWC's December 31, 2016 retained earnings balance, which is a component of common equity, to capture the changes expected to occur between December 31, 2016 and the end of the future test year, May 31, 2019. First, I added net income and subtracted dividend payments expected to occur during the period from December 31, 2016 to May 31, 2018, which results in a net pro forma increase to retained earnings of $12,970,816. Adding that increment to the December 31, 2016 retained earnings balance, along with the planned $64,000,000 planned equity infusion

to paid in capital, produces a total pro forma common equity balance of $646,564,091 at May 31, 2018, as shown on Schedule SWR-1, pages 2 and 13. Next, I added net income and subtracted dividend payments expected to occur during the period from May 31, 2018 to May 31, 2019, which results in a net pro forma increase to retained earnings of $18,517,949. Adding that to the May 31, 2018 retained earnings balance produces a total pro forma common equity balance of $665,082,040 at May 31, 2019, as shown on Schedule SWR-1, pages 1 and 14. The thirteen-month average common equity balance of $658,276,723 for the future test year is also shown on Schedule SWR-1, pages 1 and 14.

Q. Have you reviewed the testimony of Ms. Bulkley, the Company's cost of equity witness in this case?

A. Yes, I have.

Q. What cost rate have you applied to MAWC's common equity component in this case?

A. The Company has requested and used a cost of equity of 10.80%. This cost of common equity lies at the upper portion of a range of returns on equity developed and recommended by Ms. Bulkley, and is applied to the Company's pro forma capital structure to arrive at the 8.07% overall weighted cost of capital proposed in the Company's filing. This is shown on page 1 of Schedule SWR-1.

Q. Does this conclude your direct testimony?

A. Yes, it does.

Missouri-American Water Company
Weighted Average Cost of Capital
Pro Forma for the Thirteen-Month Average Ending May 31, 2019
Case No. WR-2017-0285
Case No. SR-2017-0286

Class of Capital	Amount	Percent of Total	Cost Rate	Weighted Cost of Capital
Short-Term Debt	$0	0.00%	2.00%	0.00%
Long-Term Debt	630,972,137	48.92%	5.24%	2.56%
Preferred Stock	597,262	0.05%	9.70%	0.00%
Common Equity	658,276,723	51.03%	10.80%	5.51%
Total Capitalization	$1,289,846,122	100.00%		8.07%

Missouri-American Water Company
Weighted Average Cost of Capital
Pro Forma at May 31, 2018
Case No. WR-2017-0285
Case No. SR-2017-0286

Class of Capital	Amount	Percent of Total	Cost Rate	Weighted Cost of Capital
Short-Term Debt	$0	0.00%	1.53%	0.00%
Long-Term Debt	630,595,930	49.35%	5.25%	2.59%
Preferred Stock	731,167	0.06%	9.61%	0.01%
Common Equity	646,564,091	50.59%	10.80%	5.46%
Total Capitalization	$1,277,891,188	100.00%		8.06%

Missouri-American Water Company
Weighted Average Cost of Capital
As of December 31, 2016
Case No. WR-2017-0285
Case No. SR-2017-0286

Class of Capital	Amount	Percent of Total	Cost Rate	Weighted Cost of Capital
Short-Term Debt	$48,003,822	4.08%	0.92%	0.04%
Long-Term Debt	558,709,112	47.46%	5.20%	2.47%
Preferred Stock	979,153	0.08%	9.52%	0.01%
Common Equity	569,593,275	48.38%	10.80%	5.23%
Total Capitalization	$1,177,285,361	100.00%		7.75%

Missouri-American Water Company
Short-Term Debt
Average for Thirteen Months Ending May 31, 2019
Case No. WR-2017-0285
Case No. SR-2017-0286

Date	ST Debt Balance (1)	CWIP Balance (1)	Interest Rate (1)
5/31/2018	$11,539,265	$28,393,989	
6/30/2018	30,375,138	30,870,237	
7/31/2018	31,460,940	33,740,872	
8/31/2018	33,046,126	37,860,383	
9/30/2018	31,481,679	41,512,872	
10/31/2018	42,628,031	48,487,831	
11/30/2018	48,215,549	51,403,368	
12/31/2018	6,583,635	21,134,669	
1/31/2019	-6,407,747	16,600,657	
2/28/2019	-3,080,807	19,007,750	
3/31/2019	12,177,709	29,851,758	
4/30/2019	14,019,730	31,228,433	
5/31/2019	19,756,557	33,547,881	2.00%
Average Balance	$20,907,370	$32,587,746	
Net Short Term Debt		$0	

(1) Forecasted data

Missouri-American Water Company
Short-Term Debt
Average for Thriteen Months Ending May 31, 2018
Case No. WR-2017-0285
Case No. SR-2017-0286

Date	ST Debt Balance (1)	CWIP Balance (1)	Interest Rate (1)
5/31/2017	$56,813,895	$29,320,257	
6/30/2017	72,316,192	36,497,116	
7/31/2017	12,131,600	39,980,895	
8/31/2017	11,911,902	47,921,573	
9/30/2017	18,678,100	60,196,809	
10/31/2017	28,896,237	69,869,855	
11/30/2017	29,933,121	75,444,558	
12/31/2017	8,711,381	12,450,040	
1/31/2018	1,511,045	10,673,403	
2/28/2018	2,409,884	11,764,555	
3/31/2018	16,756,332	22,103,467	
4/30/2018	18,274,275	24,107,174	
5/31/2018	11,539,265	28,393,989	1.53%
Average Balance	$22,298,710	$36,055,668	
Net Short Term Debt		$0	

(1) Forecasted data

Missouri-American Water Company
Short-Term Debt
Average for Thirteen Months Ended December 31, 2016
Case No. WR-2017-0285
Case No. SR-2017-0286

Date	ST Debt Balance	CWIP Balance	Interest Rate
12/31/2015	$27,200,689	$64,263,062	
1/31/2016	58,934,805	2,476,861	
2/29/2016	69,565,367	7,199,155	
3/31/2016	94,850,842	10,313,831	
4/30/2016	104,210,814	14,027,264	
5/31/2016	109,620,349	17,302,043	
6/30/2016	114,530,070	16,782,900	
7/31/2016	79,343,408	15,377,545	
8/31/2016	69,276,704	15,457,685	
9/30/2016	70,624,455	16,541,671	
10/31/2016	68,655,867	13,867,312	
11/30/2016	-35,700,710	15,552,081	
12/31/2016	20,937,510	18,839,080	0.9233%
Average Balance	$65,542,321	$17,538,499	
Net Short Term Debt		$48,003,822	

Missouri-American Water Company
Pro Forma Cost of Long-Term Debt for Thirteen-Month Average Ending May 31, 2019
Case No. WR-2017-0285
Case No. SR-2017-0286

Subledger	Rate	Issue Date	Maturity Date	Principal Amount	Amount Outstanding @ 12/31/15	Pro Forma Adjustments	Amount Outstanding 13-Month Average Ending 5/31/2019	Unamortized Issuance Expense @ 12/31/15	Pro Forma Adjustments	Monthly Amortization Debt Expense	Unamortized Issuance Expense 13-Month Average Ending 5/31/2019	Unamortized Debt Discount @ 12/31/15	Pro Forma Adjustments	Monthly Amortization Debt Discount	Unamortized Debt Discount 13-Month Average Ending 5/31/2019	Carrying Value 13-Month Average Ending 5/31/2019	Annual Amortization Debt Expense	Annual Amortization Debt Discount	Annual Interest Expense	Total Cost
BD170042	4.340%	06/11/18	06/31/48	$55,000,000	$55,000,000		$55,000,000	$539,306		$1,116	$540,833	$539,306		$1,528	$540,833	$53,918,333	$13,390	$18,333	$2,387,055	$2,418,778
BD170041	4.266%	07/15/17	07/15/47	70,000,000	70,000,000		70,000,000	685,273		2,003	666,954	685,972		1,944	667,917	68,665,129	24,033	23,333	2,988,340	3,038,707
BD170040	4.000%	11/17/16	12/01/45	107,480,000	107,480,000		107,480,000	1,043,480		3,133	1,046,813	831,134		2,481	833,615	106,599,772	37,592	29,772	4,299,200	4,366,564
BD170039	4.300%	08/13/15	09/01/45	50,000,000	50,000,000		50,000,000	465,415		1,454	486,859	583,970		1,825	585,795	48,967,346	17,451	21,900	2,150,000	2,189,351
BD170005	7.790%	06/01/97	06/01/27	8,000,000	8,000,000		8,000,000	31,979		317	32,296					7,967,704	3,758	0	623,200	626,958
BD170006	8.580%	04/21/95	03/01/25	3,000,000	3,000,000		3,000,000	16,000		216	16,216					2,983,784	2,593	0	257,400	259,993
BD170007	7.140%	03/16/94	03/01/24	12,500,000	12,500,000		12,500,000	126,970		698	127,668					12,372,332	8,370	0	892,500	900,870
BD170018	6.593%	10/22/07	10/15/37	103,000,000	103,000,000		103,000,000	651,212		2,858	654,190					102,345,900	34,654	0	6,790,790	6,825,444
BD170019	6.550%	08/01/08	05/31/23	70,000,000	70,000,000		70,000,000	77,074		1,468	78,542					69,921,458	17,617	0	4,585,000	4,602,617
BD170021	5.050%	11/21/11	10/15/37	25,000,000	25,000,000		25,000,000	0		0	0					25,000,000	0	0	1,262,500	1,262,500
BD170024	4.925%	06/11/12	10/15/37	18,292,000	18,292,000		18,292,000	0		0	0					18,292,000	0	0	900,881	900,881
BD170025	4.925%	06/11/12	10/15/37	10,944,000	10,944,000		10,944,000	0		0	0					10,944,000	0	0	538,992	538,992
BD170026	2.650%	06/11/12	10/15/17	10,443,000	0		0	0		0	0					0	0	0	0	0
BD170027	2.650%	06/11/12	10/15/17	3,826,000	0		0	0		0	0					0	0	0	0	0
BD170032	2.800%	07/02/12	10/16/17	2,059,000	0		0	0		0	0					0	0	0	0	0
BD170033	2.800%	07/02/12	10/16/17	7,906,000	0		0	0		0	0					0	0	0	0	0
BD170034	2.800%	07/02/12	10/15/17	11,429,000	0		0	0		0	0					0	0	0	0	0
BD170035	2.800%	07/02/12	10/15/17	16,158,000	0		0	0		0	0					0	0	0	0	0
BD170028	4.900%	07/02/12	10/15/37	2,331,000	2,331,000		2,331,000	0		0	0					2,331,000	0	0	114,219	114,219
BD170029	4.900%	07/02/12	10/15/37	10,364,000	10,364,000		10,364,000	0		0	0					10,364,000	0	0	507,836	507,836
BD170030	4.900%	07/02/12	10/15/37	13,081,000	13,081,000		13,081,000	0		0	0					13,081,000	0	0	640,969	640,969
BD170031	4.900%	07/02/12	10/15/37	22,712,000	22,712,000		22,712,000	0		0	0					22,712,000	0	0	1,112,888	1,112,888
BD170036	4.300%	12/17/12	12/01/42	15,000,000	15,000,000		15,000,000	122,144		426	122,570	21,766		76	21,842	14,855,588	5,106	910	645,000	651,016
BD170037	3.470%	07/31/13	12/21/21	20,000,000	20,000,000		20,000,000	0		0	0					20,000,000	0	0	680,000	680,000
BD170038	3.850%	11/20/13	03/01/24	25,000,000	25,000,000		25,000,000	58,493		1,585	99,997	50,158		809	50,967	24,849,036	19,037	9,703	962,500	991,240
BD170008	5.500%	05/18/93	01/01/23	4,550,000	0		0	51,923		1,082	53,005					-53,005	12,581	0	0	12,581
BD170009	5.000%	02/01/58	02/01/28	4,500,000	0		0	137,208		608	137,816					-137,816	7,302	0	0	7,302
BD170010	5.650%	07/26/96	07/01/26	6,000,000	0		0	111,664		1,241	112,905					-112,905	14,859	0	0	14,859
BD170011	5.000%	11/01/58	11/30/28	19,000,000	0		0	0		0	0					0	0	0	0	0
BD170013	5.900%	03/01/20	03/01/30	29,000,000	0		0	650,687		2,886	653,573					-653,573	34,626	0	0	34,626
BD170014	5.200%	04/01/02	04/01/32	15,000,000	0		0	0		0	0					0	0	0	0	0
BD170017	4.800%	12/13/16	12/01/45	57,480,000	0		0	554,518		2,832	557,349					-557,349	33,581	0	0	33,581
BD170020	8.190%	01/04/99	12/01/38	25,000,000	0		0	420,156		6,772	426,928					-426,928	81,266	0	0	81,266
BD350006 - Q	0.000%	01/01/05	11/30/29	0	0		0	311,125		2,375	313,500					-313,500	28,509	0	0	28,509
BD350007 - R	0.000%	01/01/05	01/31/21	0	0		0	137,650		5,518	143,168					-143,168	66,216	0	0	66,216
BD350008 - S	0.000%	01/01/05	01/31/21	0	0		0	200,651		5,423	206,074					-206,074	65,076	0	0	65,076
BD350009 - T	5.500%	02/01/93	02/01/23	15,000,000	0		0	106,181		2,167	108,348					-108,348	28,003	0	0	28,003
BD350010 - U	5.700%	06/01/95	06/01/25	12,000,000	0		0	126,627		1,645	128,271					-128,271	19,734	0	0	19,734
BD350011 - V	5.500%	11/01/96	11/01/26	19,900,000	0		0	248,732		2,646	251,379					-251,379	31,753	0	0	31,753
BD350013 - X	5.100%	03/01/98	03/01/28	25,000,000	0		0	0		0	0					0	0	0	0	0
BD350014 - Y	5.000%	03/01/99	03/01/29	40,000,000	0		0	682,645		3,027	685,672					-685,672	36,327	0	0	36,327
				$666,605,000	$541,704,000	$0	$541,704,000	$7,977,279	$0	$53,525	$8,030,854	$2,692,306	$0	$8,663	$2,700,969	$530,972,137	$642,295	$103,551	$32,337,270	$33,083,513

Cost of Long-Term Debt = (Total Cost / Carrying Value)

6.24%

Missouri-American Water Company
Pro Forma Cost of Long-Term Debt at May 31, 2018
Case No. WR-2017-0285
Case No. SR-2017-0286

Subacct	Rate	Issue Date	Maturity Date	Principal Amount	Amount Outstanding @ 12/31/16	Pro Forma Adjustments	Pro Forma Amount Outstanding @ 5/31/18	Unamortized Issuance Expense @ 12/31/16	Pro Forma Adjustments	Monthly Amortization Debt Expense	Unamortized Issuance Expense @ 5/31/18	Unamortized Debt Discount @ 12/31/16	Pro Forma Adjustments	Monthly Amortization Debt Discount	Unamortized Debt Discount @ 5/31/18	Carrying Value @ 5/31/18	Annual Amortization Debt Expense	Annual Amortization Debt Discount	Annual Interest Expense	Total Cost
BD170042	4.340%	05/31/18	06/01/48	$0	$0	$55,000,000	$55,000,000		$550,000	$1,528	$550,000		$550,000	$1,527.78	$550,000	$53,900,000	$18,333	$18,333	$2,387,055	$2,423,722
BD170041	4.266%	07/15/17	07/15/47	0	0	70,000,000	70,000,000		700,000	1,944	679,583		700,000	1,944	679,583	68,640,834	23,333	23,333	2,985,340	3,033,007
BD170040	4.000%	11/17/16	12/01/46	107,480,000	107,480,000		107,480,000	1,118,693		3,133	1,065,409	890,676		2,461	848,501	105,566,090	37,592	29,772	4,299,200	4,366,564
BD170039	4.300%	08/13/15	09/01/45	50,000,000	50,000,000		50,000,000	500,317		1,454	475,555	627,770		1,825	596,745	48,927,660	17,451	21,900	2,150,000	2,189,351
BD170005	7.790%	06/01/97	06/01/27	8,000,000	8,000,000		8,000,000	39,576		317	34,135					7,965,865	3,758	0	623,200	626,958
BD170006	8.362%	04/21/95	03/01/25	3,000,000	3,000,000		3,000,000	21,187		216	17,513					2,982,487	2,553	0	257,430	259,983
BD170007	7.140%	08/16/94	08/01/34	12,500,000	12,500,000		12,500,000	143,719		698	131,853					12,368,147	8,370	0	892,500	900,870
BD170018	6.593%	12/22/97	12/15/37	103,000,000	103,000,000		103,000,000	720,521		2,833	673,427					102,328,573	34,654	0	6,790,790	6,825,444
BD170019	6.550%	08/01/08	05/31/23	70,000,000	70,000,000		70,000,000	112,307		1,468	87,350					69,912,650	17,617	0	4,585,000	4,602,617
BD170021	5.050%	11/21/11	12/15/37	25,000,000	25,000,000		25,000,000	0		0	0					25,000,000	0	0	1,262,500	1,262,500
BD170024	4.925%	06/11/12	12/15/37	18,292,000	18,292,000		18,292,000	0		0	0					18,292,000	0	0	900,881	900,881
BD170025	4.915%	06/11/12	12/15/37	10,944,000	10,944,000		10,944,000	0		0	0					10,944,000	0	0	538,992	538,992
BD170026	2.650%	06/11/12	12/15/17	10,443,000	10,443,000	(10,443,000)	0	0		0	0					0	0	0	0	0
BD170027	2.650%	06/11/12	12/15/17	3,826,000	3,826,000	(3,826,000)	0	0		0	0					0	0	0	0	0
BD170032	2.800%	07/02/12	12/15/17	2,069,000	2,069,000	(2,069,000)	0	0		0	0					0	0	0	0	0
BD170033	2.800%	07/02/12	12/15/17	7,906,000	7,906,000	(7,906,000)	0	0		0	0					0	0	0	0	0
BD170034	2.800%	07/02/12	12/15/17	11,429,000	11,429,000	(11,429,000)	0	0		0	0					0	0	0	0	0
BD170035	2.800%	07/02/12	12/15/17	16,198,000	16,198,000	(16,198,000)	0	0		0	0					0	0	0	0	0
BD170028	4.900%	07/02/12	12/15/37	2,331,000	2,331,000	2,331,000	0	0		0	0					2,331,000	0	0	114,219	114,219
BD170029	4.900%	07/02/12	12/15/37	10,364,000	10,364,000	10,364,000	0	0		0	0					10,364,000	0	0	507,836	507,836
BD170030	4.900%	07/02/12	12/15/37	13,081,000	13,081,000	13,081,000	0	0		0	0					13,081,000	0	0	640,969	640,969
BD170031	4.900%	07/02/12	12/15/37	22,712,000	22,712,000	22,712,000	0	0		0	0					22,712,000	0	0	1,112,888	1,112,888
BD170036	4.300%	12/17/12	12/01/42	15,000,000	15,000,000	15,000,000	132,357	426		125,123	23,586		76	22,297		14,852,580	5,326	910	645,000	651,016
BD170037	3.400%	07/31/13	12/21/21	20,000,000	20,000,000	20,000,000	0	0		0	0					20,000,000	0	0	680,000	680,000
BD170038	3.850%	11/20/13	03/01/24	25,000,000	25,000,000	25,000,000	138,484	1,585		129,515	69,554		809	55,818		24,834,667	13,037	9,703	962,500	991,240
BD170008	5.500%	05/13/93	01/01/23	4,950,000	0	0	77,885	1,082		59,495						-59,495	12,981	0	0	12,981
BD170009	5.000%	02/01/88	02/01/28	4,500,000	0	0	151,811	608		141,457						-141,457	7,302	0	0	7,302
BD170010	5.250%	07/26/95	07/01/26	6,000,000	0	0	141,441	1,241		120,349						-120,349	14,829	0	0	14,829
BD170011	5.000%	11/01/88	11/30/28	19,000,000	0	0	108,419	0		0						0	0	0	0	0
BD170013	5.900%	03/01/00	03/01/30	29,000,000	0	0	719,540	2,685		670,886						-670,886	34,626	0	0	34,626
BD170014	5.200%	04/01/02	04/01/32	15,000,000	0	0	88,498	0		0						0	0	0	0	0
BD170017	4.600%	12/18/16	12/01/46	57,480,000	0	0	1,022,479	2,632		974,340						-974,340	33,561	0	0	33,561
BD170020	6.250%	02/04/09	12/01/38	25,000,000	0	0	582,638	6,772		467,511						-467,511	81,266	0	0	81,266
BD350006 - Q	0.000%	01/01/05	11/30/29	0	0	0	368,125	2,375		327,750						-327,750	28,500	0	0	28,500
BD350007 - R	0.000%	01/01/05	01/31/31	0	0	0	270,382	5,518		176,576						-176,576	66,216	0	0	66,216
BD350008 - S	0.000%	01/01/05	01/31/31	0	0	0	383,603	5,423		238,612						-238,612	65,076	0	0	65,076
BD350009 - T	5.500%	02/01/93	02/01/23	15,000,000	0	0	158,187	2,167		121,349						-121,349	26,003	0	0	26,003
BD350010 - U	5.700%	06/01/95	06/01/25	12,000,000	0	0	166,055	1,645		138,138						-138,138	19,734	0	0	19,734
BD350011 - V	5.500%	11/01/96	11/01/26	19,900,000	0	0	312,239	2,646		267,255						-267,255	31,753	0	0	31,753
BD350013 - X	5.300%	03/01/98	03/01/28	25,000,000	0	0	79,927	0		0						0	0	0	0	0
BD350014 - Y	5.000%	03/01/99	03/01/29	40,000,000	0	0	755,299	3,027		703,836						-703,836	36,327	0	0	36,327
				$841,406,000	$568,575,000	$73,329,000	$643,704,000	$8,254,290	$1,250,000	$53,878	$9,355,126	$1,611,598	$1,250,000	$8,663	$1,752,945	$630,555,930	$546,540	$103,551	$32,337,270	$33,087,761

Cost of Long-Term Debt = [Total Cost / Carrying Value]

5.25%

Missouri-American Water Company
Cost of Long-Term Debt at December 31, 2016
Case No. WR-2017-0285
Case No. SR-2017-0286

Subledger	Rate	Issue Date	Maturity Date	Principal Amount	Amount Outstanding @ 12/31/16	Unamortized Issuance Expense @ 12/31/16	Monthly Amortization Debt Expense	Unamortized Debt Discount @ 12/31/16	Monthly Amortization Debt Discount	Carrying Value @ 12/31/16	Annual Amortization Debt Expense	Annual Amortization Debt Discount	Annual Interest Expense	Total Cost
BD170040	4.000%	11/17/16	12/01/46	$107,480,000	$107,480,000	$1,118,663	$3,133	$890,678	$2,431	$105,470,659	$37,592	$29,772	$4,293,200	$4,366,564
BD170039	4.300%	06/13/16	09/01/45	50,000,000	50,000,000	500,317	1,454	627,770	1,825	48,871,913	17,451	21,920	2,150,000	2,189,351
BD170005	7.790%	06/01/97	06/01/27	8,000,000	8,000,000	39,576	317			7,960,424	3,798	0	623,200	626,998
BD170006	8.560%	04/21/95	03/01/25	3,000,000	3,000,000	21,187	216			2,978,813	2,593	0	257,400	259,993
BD170007	7.140%	03/16/94	03/01/24	12,500,000	12,500,000	143,710	695			12,356,290	8,370	0	892,500	900,870
BD170018	6.593%	10/22/07	10/15/37	103,000,000	103,000,000	720,521	2,858			102,279,479	34,654	0	6,790,790	6,825,444
BD170019	6.550%	08/01/08	05/31/23	70,000,000	70,000,000	112,307	1,468			69,887,693	17,617	0	4,585,000	4,602,617
BD170021	5.050%	11/21/11	10/15/37	25,000,000	25,000,000	0	0			25,000,000	0	0	1,262,500	1,262,500
BD170024	4.925%	06/11/12	10/15/37	18,292,000	18,292,000	0	0			18,292,000	0	0	900,881	900,881
BD170025	4.925%	06/11/12	10/15/37	10,944,000	10,944,000	0	0			10,944,000	0	0	538,932	538,932
BD170026	2.650%	06/11/12	10/15/17	10,443,000	10,443,000	0	0			10,443,000	0	0	276,740	276,740
BD170027	2.650%	06/11/12	10/15/17	3,826,000	3,826,000	0	0			3,826,000	0	0	101,389	101,389
BD170032	2.800%	07/02/12	10/16/17	2,069,000	2,069,000	0	0			2,069,000	0	0	57,932	57,932
BD170033	2.800%	07/02/12	10/16/17	7,906,000	7,906,000	0	0			7,906,000	0	0	221,368	221,368
BD170034	2.800%	07/02/12	10/15/17	11,429,000	11,429,000	0	0			11,429,000	0	0	320,012	320,012
BD170035	2.800%	07/02/12	10/15/17	16,153,000	16,153,000	0	0			16,153,000	0	0	453,544	453,544
BD170028	4.900%	07/02/12	10/15/37	2,331,000	2,331,000	0	0			2,331,000	0	0	114,219	114,219
BD170029	4.900%	07/02/12	10/15/37	10,364,000	10,364,000	0	0			10,364,000	0	0	507,836	507,836
BD170030	4.900%	07/02/12	10/15/37	13,061,000	13,061,000	0	0			13,061,000	0	0	640,959	640,959
BD170031	4.900%	07/02/12	10/15/37	22,712,000	22,712,000	0	0			22,712,000	0	0	1,112,888	1,112,888
BD170036	4.300%	12/17/12	12/01/42	15,000,000	15,000,000	132,357	426	23,586	76	14,844,057	5,106	910	645,000	651,016
BD170037	3.400%	07/31/13	12/21/21	20,000,000	20,000,000	0	0			20,000,000	0	0	680,000	680,000
BD170038	3.850%	11/20/13	03/01/24	25,000,000	25,000,000	136,484	1,586	69,564	809	24,793,952	19,037	9,708	962,500	991,240
BD170008	5.500%	05/18/93	01/01/23	4,550,000	0	77,835	1,062			-77,835	12,981	0	0	12,981
BD170009	5.000%	02/01/93	02/01/28	4,500,000	0	151,811	606			-151,631	7,302	0	0	7,302
BD170010	5.650%	07/26/95	07/01/26	6,000,000	0	141,441	1,241			-141,441	14,859	0	0	14,859
BD170011	5.000%	11/01/93	11/30/28	19,000,000	0	103,419	10,865			-103,419	0	0	0	0
BD170013	5.900%	03/01/00	03/01/30	29,000,000	0	719,940	2,856			-719,940	34,626	0	0	34,626
BD170014	5.200%	04/01/02	04/01/32	15,000,000	0	88,493	9,316			-88,493	0	0	0	0
BD170017	4.600%	12/19/16	12/01/46	57,480,000	0	1,022,479	2,832			-1,022,479	33,931	0	0	33,931
BD170020	8.250%	02/04/09	12/01/38	25,000,000	0	582,638	6,772			-582,638	81,265	0	0	81,265
BD350006 - Q	0.000%	01/01/05	11/30/29	0	0	368,125	2,375			-368,125	28,500	0	0	28,500
BD350007 - R	0.000%	01/01/05	01/31/21	0	0	270,382	5,518			-270,382	66,216	0	0	66,216
BD350008 - S	0.000%	01/01/05	01/31/21	0	0	330,803	5,423			-330,803	65,076	0	0	65,076
BD350009 - T	5.500%	02/01/93	02/01/23	15,000,000	0	158,187	2,167			-158,187	26,003	0	0	26,003
BD350010 - U	5.700%	06/01/95	06/01/25	12,000,000	0	166,065	1,645			-166,065	19,734	0	0	19,734
BD350011 - V	5.500%	11/01/95	11/01/26	19,900,000	0	312,233	2,646			-312,233	31,753	0	0	31,753
BD350013 - X	5.100%	03/01/93	03/01/28	25,000,000	0	79,927	8,413			-79,927	0	0	0	0
BD350014 - Y	5.000%	03/01/99	03/01/29	40,000,000	0	755,299	3,027			-755,299	36,327	0	0	36,327
				$641,409,000	$568,575,000	$8,254,290	$79,021	$1,611,568	$5,150	$558,709,112	$604,873	$62,285	$28,394,860	$29,062,017

Cost of Long-Term Debt = [Total Cost / Carrying Value] 5.20%

Missouri-American Water Company
Pro Forma Cost of Preferred Stock for Thirteen-Month Average Ending May 31, 2019
Case No. WR-2017-0285
Case No. SR-2017-0286

Type, Par Value	Dividend Rate	Date Issued	Amount Outstanding @ 12/31/18	Adjustments	Amount Outstanding 13-Month Average Ending 6/30/2019	Unamortized Issuance Expense @ 12/31/18	Adjustments	Unamortized Issuance Expense 13-Month Average Ending 6/30/2019	Carrying Value 6/30/2019	Annual Amortization	Annual Dividends	Total Annual Cost
Preference Stock $100 par	9.18%	10/3/91	$500,000	$115,385	$615,385	$18,004	$118	$18,123	$597,262	$1,421	$56,492	$57,913
Total Preferred Stock			$500,000	$115,385	$615,385	$18,004	$118	$18,123	$597,262	$1,421	$56,492	$57,913

Total Cost of Preferred Stock = [Total Annual Cost/Carrying Value] 9.70%

Missouri-American Water Company
Pro Forma Cost of Preferred Stock at May 31, 2018
Case No. WR-2017-0285
Case No. SR-2017-0286

Type, Par Value	Dividend Rate	Date Issued	Amount Outstanding @ 12/31/16	Adjustments	Amount Outstanding @ 5/31/18	Unamortized Issuance Expense @ 12/31/16	Adjustments	Unamortized Issuance Expense @ 5/31/18	Carrying Value @ 5/31/18	Annual Amortization	Annual Dividends	Total Annual Cost
Preference Stock $100 par	9.18%	10/3/91	$1,000,000	($250,000)	$750,000	$20,847	($2,014)	$18,833	$731,167	$1,421	$68,850	$70,271
Total Preferred Stock			$1,000,000	($250,000)	$750,000	$20,847	($2,014)	$18,833	$731,167	$1,421	$68,850	$70,271

Total Cost of Preferred Stock = [Total Annual Cost/Carrying Value] 9.61%

Missouri-American Water Company
Cost of Preferred Stock at December 31, 2016
Case No. WR-2017-0285
Case No. SR-2017-0286

Type, Par Value	Dividend Rate	Date Issued	Amount Outstanding @ 12/31/16	Unamortized Issuance Expense @ 12/31/16	Carrying Value @ 12/31/16	Annual Amortization	Annual Dividends	Total Annual Cost
Preference Stock $100 par	9.18%	10/3/91	$1,000,000	$20,847	$979,153	$1,421	$91,800	$93,221
Total Preferred Stock			$1,000,000	$20,847	$979,153	$1,421	$91,800	$93,221

Total Cost of Preferred Stock = [Total Annual Cost/Carrying Value] 9.52%

Missouri-American Water Company
Pro Forma Common Equity at May 31, 2018
Case No. WR-2017-0285
Case No. SR-2017-0286

	Balance @ 12/31/16	Equity Infusion	Adjustments Net Income	Dividends Paid	Balance @ 5/31/18
Common Stock	$95,994,075		-	-	$95,994,075
Paid-in Capital	256,816,681	$64,000,000	-	-	320,816,681
Retained Earnings	216,782,519	-	$61,768,804	($48,797,988)	229,753,335
Total Common Equity	$569,593,275	$64,000,000	$61,768,804	($48,797,988)	$646,564,091

Pro-Forma Adjustments:

Additional Paid-in Capital	$64,000,000		ABP Oct '17
Retained Earnings			
Add: Net Income Available to Common			
ABP Jan '17 - May '18		61,768,804	
Less: Common Stock Dividends			
ABP Jan '17 - May '18			(48,797,988)
Total Pro Forma RE Adjustment			$12,970,816

Missouri-American Water Company
Monthly Common Equity Balances for Thirteen Months Ending May 31, 2019
Case No. WR-2017-0285
Case No. SR-2017-0286

	5/31/18	6/30/18	7/31/18	8/31/18	9/30/18	10/31/18	11/30/18	12/31/18	1/31/19	2/28/19	3/31/19	4/30/19	5/31/19
Common Stock	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075	$95,994,075
Paid In Capital	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681	320,816,681
Retained Earnings	229,753,335	230,836,673	238,170,364	246,211,951	242,617,575	247,452,084	251,221,285	238,145,379	240,926,160	243,945,186	238,511,721	242,994,567	248,271,284
Total Common Equity	$646,564,091	$647,647,429	$654,981,120	$663,022,707	$659,428,331	$664,262,840	$668,032,041	$654,956,135	$657,736,916	$660,755,942	$655,322,477	$659,805,323	$665,082,040
Thirteen-Month Average													$658,276,723