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Issues:	*Rate of Return/Capital Structure*
Witness:	*David Murray*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Surrebuttal Testimony*
Case Nos.:	*WR-2003-0500 and WC-2004-0168 (Consolidated)*
Date Testimony Prepared:	*December 5, 2003*

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

DAVID MURRAY

MISSOURI-AMERICAN WATER COMPANY

CASE NOS. WR-2003-0500 and WC-2004-0168 (Consolidated)

Jefferson City, Missouri
December 2003

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the General Rate Increase for Water and Sewer Service Provided by Missouri-American Water Company.	)))	Case No. WR-2003-0500
Staff of the Missouri Public Service Commission, Complainant v. Missouri-American Water Company, Respondent	)))))))))	Case No. WC-2004-0168

AFFIDAVIT OF DAVID MURRAY

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

David Murray, being of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 37 pages to be presented in the above case; that the answers in the following Surrebuttal Testimony were given by his; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

David Murray

Subscribed and sworn to before me this 3RD day of December 2003.

TONI M. CHARLTON
NOTARY SEAL
NOTARY PUBLIC
STATE OF MISSOURI

TONI M. CHARLTON
NOTARY PUBLIC STATE OF MISSOURI
COUNTY OF COLE
My Commission Expires December 28, 2004

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(Consolidated)

Q. Please state your name.

A. My name is David Murray.

Q. Are you the same David Murray who filed direct and rebuttal testimony in this proceeding for the Staff of the Missouri Public Service Commission (Staff)?

A. Yes, I am.

Q. In your direct testimony, did you recommend a fair and reasonable rate of return for the Missouri jurisdictional water utility rate base for Missouri-American Water Company (MAWC)?

A. Yes, I did.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimony of Mr. Mark Burdette and Ms. Pauline Ahern. Mr. Burdette sponsored rate-of-return testimony on behalf of the Office of the Public Counsel (OPC). Ms. Ahern sponsored rate-of-return testimony on behalf of MAWC.

Response to Mr. Burdette's Rebuttal Testimony

Q. Mr. Burdette maintains that American Water's consolidated capital structure should not be used because it was acquired by Thames Water, a division of RWE. His

rationale, stated on page 2, lines 15 through 17 of his rebuttal testimony, is that "…there will simply be no information on which to base his capital structure as of the Commission-ordered true-up date of 30 June 2003, as the publicly-traded entity American Water Works [American Water] has ceased to exist." In light of the fact that Mr. Burdette utilizes MAWC's subsidiary capital structure, is this a valid argument against the use of American Water's consolidated capital structure for ratemaking purposes in this case?

A. No. MAWC is not a publicly-traded company. It is a subsidiary of American Water. If one were to follow Mr. Burdette's logic, then it would be inappropriate to consider MAWC and American Water's capital structure because neither are publicly traded.

Q. Does Standard & Poor's comment specifically on MAWC's operations and financial situation when assessing the creditworthiness of American Water Capital Corporation (AWCC)?

A. No.

Q. Does Standard & Poor's assign a credit rating to the debt that is held at MAWC?

A. No.

Q. Does Standard & Poor's assign a credit rating to AWCC debt?

A. Yes. As a matter of fact, Ms. Ahern attached a research report on AWCC's credit rating to her rebuttal testimony as Schedule PMA-13.

Q. In assigning a credit rating to AWCC, does Standard & Poor's comment specifically on the financial condition of American Water?

A. Yes. In its report, Standard & Poor's states the following about American Water's financial condition:

> American Water Works' [American Water] financial profile is relatively weak for the current rating. Debt leverage has improved dramatically after the merger with RWE was completed, dropping to under 50% from just under 70% at year-end 2002. Funds from operations (FFO) to interest coverage is expected to continue to be under 3x over the intermediate term, while FFO to average total debt is expected to be just over 10% in the same time period. Capital spending needs will only be partly internally funded with the balance funded through debt issuances in the capital markets or through intercompany loans with RWE.

Q. Does Standard & Poor's comment concerning American Water's debt leverage reasonably imply that it is analyzing American Water's balance sheet when assessing the creditworthiness of AWCC?

A. Yes.

Q. Would this be the same balance sheet information that you utilized for your recommended capital structure for ratemaking purposes in this case?

A. Although I am not privy to the balance sheet information that American Water provided to Standard & Poor's, I would presume that the June 30, 2003 American Water balance sheet information provided to me in MAWC's updated response to Staff Data Information Request 3801 would be the same financial information that Standard & Poor's reviewed because its Research Report was issued on August 1, 2003, a month after the end of the quarter.

Q. On page 4, lines 10 through 12 of his rebuttal testimony, Mr. Burdette indicates that MAWC "has long-term debt issued under its own name" and that is why the Company's "actual debt" should be used to calculate the embedded cost of debt. Do you agree that all of MAWC's debt is issued under its own name?

A. No. AWCC issues its debt to a third party and then AWCC allocates this debt down to its subsidiaries through internal loan documents. While these internal loan

documents may name MAWC as the borrower, it is not a direct debt issuance by MAWC to the third party. If MAWC should default on its internal loan, the third party that loaned the money to AWCC is not going to pursue collection from MAWC because its agreement is with AWCC. AWCC will utilize the funds that it receives from all of American Water's operations to pay the debt service on its debt.

Q. On page 5, lines 8 through 9 of his rebuttal testimony, Mr. Burdette contends that because MAWC has preferred stock issued under its own name, "the Company's [MAWC] actual preferred stock is appropriate to use to calculate the embedded cost." Do you agree that this is the appropriate embedded cost of preferred stock to use for your recommended capital structure?

A. No. Because I am recommending American Water's consolidated capital structure for ratemaking purposes in this case, for my purposes, it is appropriate to utilize the consolidated embedded cost of preferred stock. Otherwise, there would be a mismatching of the capital structure components and the costs associated with them. Therefore, the embedded cost of preferred stock to utilize will be driven by the Commission's decision on the appropriate capital structure for ratemaking purposes in this case.

Q. On page 8, lines 2 through 4 of his rebuttal testimony, Mr. Burdette maintains that the Staff "over-emphasized historical growth rates rather than primarily looking at projected growth rates." Do you agree with his characterization of the growth rates the Staff chose to utilize in its DCF recommendation?

A. No. I recognized that there were some low and even negative growth rates in my historical averages, which deviated from some of the projected growth rates. I also recognized there were some high projected growth rates and that some of the projected

growth rates of Value Line, Standard & Poor's and I/B/E/S did not corroborate with each other. Therefore, I critically analyzed both the low and negative growth rates and the high projected growth rates in arriving at my recommendation.

Q. Is it important to consider historical as well as projected growth rates when estimating the growth rate to be utilized in the DCF model?

A. Yes. It is important to consider historical growth rates because, as stated on pages 8-32 in David C. Parcell's book, The Cost of Capital - A Practitioner's Guide, 1997 "investors, as a group, do not utilize a single growth estimate when they price a utility's stock. Thus rate of return analysts should consider multiple growth estimates in order to better capture the growth embodied in a utility's stock price." It is important to note that Mr. Parcell emphasizes that analysts should consider multiple growth estimates. This applies to projected as well as historical growth rates. Additionally, Mr. Parcell states: "Analysts should recognize that individual investors have different expectations regarding growth and therefore no single indicator captures the growth expectations of all investors." Therefore, it is important to not only give weight to multiple projected growth rates, but to also give weight to historical growth rates because that is in fact what investors as a group will do.

Q. When performing a proxy group analysis of the cost of common equity, is it necessary to pick apart the individual nuances of each company and their growth rates in order to arrive at an overall reasonable growth rate range to utilize in the DCF model to be applied to the subject company?

A. In a proxy group analysis, it is the "sum of the parts" that is important. Obviously, there will always be nuances that make each company a little different than the subject company. These nuances may be reflected in the growth rates of the companies in

the proxy group. It is the idea that these nuances will cancel each other out when performing a proxy group analysis that makes the overall results reliable, as long as the companies you have chosen are in the same general line of business.

Q. Is this approach consistent with legal precedent?

A. Yes. In Federal Power Commission et al. v. Natural Gas Pipeline Company of America et al., 315 U.S. 575 (1942), the Court decided that:

> The Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas . . . . If the Commission's order, as applied to the facts before it and viewed in its entirety, produces no arbitrary result, our inquiry is at an end. Id. at 586.

Q. Do the growth rates that you have chosen to utilize in your DCF model result in an arbitrary result?

A. No, they do not.

Q. Do you have any additional support for the consideration of both historical and projected growth rates?

A. Yes. Dr. Roger A. Morin on page 157 of his book, Regulatory Finance Utilities' Cost of Capital, 1994, states the following:

> Obviously, historical growth rates as well as analysts' forecasts provide relevant information to the investor with regard to growth expectations. In view of the empirical evidence and the conceptual discussion of the previous sections, and provided no structural shift in industry fundamentals have occurred, equal weight should be accorded to DCF results based on history and those based on analysts' forecasts. Each proxy for expected growth brings information to the judgment process from a different light. Neither proxy is without blemish, each has advantages and shortcomings. Historical growth rates are available and easily verifiable, but may no longer be applicable if structural shifts have occurred. Analysts' growth forecasts may be more relevant since they encompass both history and current changes, but are nevertheless imperfect proxies.

Therefore, there is ample support for the use of my methodology of giving equal weight to both historical and projected growth rates.

Response to Ms. Ahern's Rebuttal Testimony

Q. Ms. Ahern states on page 3, lines 20 through 22 of her rebuttal testimony that "[s]ince MAWC is not obligated to borrow from AWCC, it is by no means a certainty that the exclusive source of MAWC's future debt financings will be AWCC." Do you agree with this statement?

A. Yes. However, it does appear that AWCC is going to be the primary source of debt financing for American Water and its regulated subsidiaries going forward. The following statement was made in American Water's 2002 Annual Report under Note 15 of its Notes to Financial Statements:

> In June 2000 the Company completed the formation of a new wholly owned subsidiary, American Water Capital Corp. ("AWCC"), a special purpose corporation that serves as the **primary** funding vehicle for American Water Works Company and its regulated subsidiaries. American Water Works has fully and unconditionally guaranteed the securities of AWCC. [emphasis added]

Q. Is MAWC still going to issue its own debt through special state programs such as the State Environmental Improvement and Energy Resource Authority (the "Authority")?

A. Yes. This was verified in the following exchange during an interview Staff conducted with MAWC and American Water personnel on September 10, 2003.

> Mr. Bible:
>
> Q. This is still Ron Bible. I know you've participated in the Missouri EIERA loan program. How is that going to work? Are you going to still participate in that and how is that going to work going forward?
>
> Mr. Jenkins:

> A. Yes. We'll still participate, provided that's our cheapest cost alternative. If we still have that available to us and as long as we can get volume cap through the state, then we'll make use of that vehicle.

Q. How does MAWC typically utilize EIERA funds?

A. EIERA funds are typically being used by MAWC to repay short-term debt that MAWC has outstanding with AWCC. The following exchange during the interview verifies this.

> Mr. Murray:
>
> Q. You indicate that there is a lock box mechanism at Missouri American and American Water Capital Corporation has access to as far as the EIERA funds. Does that go -- does that go to some type of corporate treasury? Where does that go once you receive the funds?
>
> Mr. Hartnett:
>
> A. Typically the EIERA financing is being used to repay short-term debt that Missouri American has billed up with Capital Corp. so – in construction of water facilities. So, and Jim correct me if I'm wrong, the proceeds typically would be drawn from EIERA and repay Capital Corp. short-term debts.

Q. What are the implications of the fact that EIERA funds are being used to pay off AWCC short-term debt that has been loaned to MAWC?

A. The funds that are coming in and out of AWCC are commingled and there is really no way of being able to determine the costs associated with those funds. While the initial cost of the funds utilized by MAWC is apparently the cost associated with the short-term debt charged to AWCC, now the cost of the funds are based on the interest rate associated with the EIERA funds. However, because the EIERA funds are used to pay off short-term loans at AWCC, the actual funds loaned by EIERA may be used for some purpose other than investment in MAWC. The funds have become commingled because of the consolidated financing process that American Water now utilizes. This is one of the reasons

why it is appropriate to utilize American Water's consolidated capital structure for ratemaking purposes in this case.

Q. Is your recommendation of American Water's consolidated capital structure for MAWC contingent upon AWCC being the primary source of debt financing for MAWC?

A. No. As indicated by David C. Parcell in The Cost of Capital—A Practioner's Guide, 1997, one of the considerations to help determine whether the utility versus parent capital structure is appropriate is:

> Whether subsidiary utility obtains all of its capital from its parent, or issues its own debt and preferred stock..

If a subsidiary utility obtains all of its capital, which includes equity and debt from its parent, then this consideration establishes that it would be appropriate to utilize the parent capital structure. However, because the second part of the consideration indicates that "or [the subsidiary] issues its own debt and preferred stock," it is not clear that the driving factor in considering the use of the subsidiary capital structure would be that the subsidiary issues some of its own debt. I would agree that if MAWC issued all of its own debt and there wasn't the existence of double leverage, which is a situation in which the parent company issues debt and the subsidiary issues debt and the parent company invests in the common equity of the subsidiary, then the subsidiary capital structure would be more appropriate, but MAWC no longer issues all of its own debt. In addition, the EIERA debt that MAWC is issuing is typically being used to pay off short-term debt owed to AWCC. Therefore, even the debt that is issued by MAWC is being used to pay off debt that had already been received from AWCC.

Q. On page 4, lines 11 through 16 of her rebuttal testimony, Ms. Ahern stated that Standard & Poor's indicated in its August 1, 2003 Research Report that American Water

Works "does not guarantee debt issued by AWCC." Does this contradict a statement made in American Water's 2002 Annual Report?

A. Yes. As stated under Note 15 of its Notes to Financial Statements, American Water stated that "American Water Works has fully and unconditionally guaranteed the securities of AWCC."

Q. What is the difference between the legal definition of a "guaranty" and the "support agreement" that American Water provides to AWCC?

A. Under a guaranty, the guarantor (the person or entity making the guaranty) is secondarily liable for the debt. This means that if the principal party to which the debt was issued should default on the loan, then the guarantor would be responsible for the debt obligation. Typically, under a legal guaranty the creditor must attempt to collect from the principal debtor in order to declare the principal debtor in default before payment is required from the guarantor.

The "support agreement" was explained in MAWC's Application in Case No. WF-2002-1096. Part of Paragraph 22 of that Application stated the following:

> AWW has issued a "support letter" for the benefit of the lenders to AWCC. The support letter requires AWW to continue to own all of the issued and outstanding stock of AWCC, to cause AWCC to maintain a positive, tangible net worth and, if AWCC is unable to satisfy its obligations when due, to provide funds to assure such payment.

Q. Based on the difference between a legal "guaranty" and the "support agreement," which would provide more "support" to the lender by American Water?

A. The "support agreement." Under a guaranty, MAWC would be issuing its own debt to the third party and American Water would be the guarantor. The third party would have to attempt to collect from MAWC and declare MAWC in default before it would

be able to demand payment from American Water. Under the "support agreement" issued by American Water the third party lender does not have to make any attempt to collect from MAWC because the debt is issued by AWCC. The third party lender is not concerned with which subsidiary or subsidiaries are providing the debt service because it doesn't have a loan agreement with any of the subsidiaries. It has its loan agreement with AWCC. Therefore, because this debt is actually issued by AWCC and then allocated down to American Water subsidiaries through internal loan documents, it is apparent that this debt is not truly MAWC debt. The third party lender does not have to go through the hassle of attempting to collect from MAWC because it didn't issue the debt to MAWC. The "support agreement" actually provides a higher level of assurance that the lender will receive payment on the debt because it will be supported by all of American Water's subsidiaries.

Q. Does Ms. Ahern rely on her assertion that American Water does not "guaranty" the debt securities issued by AWCC to support her contention that American Water's consolidated capital structure should not be used?

A. Yes. She cites a second item from David C. Parcell's book The Cost of Capital—A Practioner's Guide, 1997 that should be considered when determining whether it is appropriate to utilize the subsidiary versus the parent company's consolidated capital structure. Specifically, David C. Parcell states the following consideration:

> Whether parent guarantees any of the securities issued by the subsidiary.

Q. Does David C. Parcell define a "guaranty" in the context in which he uses the term?

A. No.

Q. Would it be reasonable to assume that if the parent company provided a greater level of assurance of payment of a security, such as a "support agreement," over a guaranty, that this would provide more support for utilizing the consolidated capital structure?

A. Absolutely. If AWCC is the entity that is actually issuing the debt to the third party, not MAWC, then MAWC is not ultimately obligated for the payment of that debt to the third party and hence there is no need for American Water to make a guaranty on behalf of MAWC. If MAWC was actually issuing the debt, then the consideration would be whether American Water was guaranteeing the debt issued by MAWC, but because American Water is providing a "support agreement" to AWCC on behalf of creditors to AWCC, this provides a greater level of assurance of payment because the support comes from the income from the dividends provided by all of American Water's subsidiaries.

Q. Regardless of the above discussion on your understanding of the difference between a legal "guaranty" and American Water's "support agreement," what is the ultimate implication of the arrangement American Water has with AWCC?

A. American Water has indicated that it will "provide funds to assure such payment" on debt issued by AWCC. American Water has also indicated in its 2002 Annual Report that it has "fully and unconditionally guaranteed the securities of AWCC." Therefore, it is clear that American Water's intent is to guaranty payment of debt service owed by AWCC, whether it is legally defined as a guaranty or not.

Q. Do you agree with Ms. Ahern's claim that MAWC's capital structure is independent of its parent, American Water?

A. No. As I explained in my rebuttal testimony, because AWCC is essentially acting like the treasury for American Water, the inflows and outflows of funds at AWCC become commingled with those funds that are being used for various corporate purposes at American Water and its subsidiaries. For example, Staff discovered during the transcribed interview with MAWC and American Water personnel that of the $1.2 billion of debt issued on November 6, 2001, American Water borrowed $450 million for equity infusions into its subsidiaries. If American Water's subsidiaries had truly independent capital structures, then the debt incurred for this acquisition would have been carried at the subsidiary level. By carrying some of this debt at the parent company level rather than at the subsidiaries, American Water is able to produce subsidiary capital structures that are more heavily weighted in equity, which would not be the case otherwise. As explained previously, this type of situation is often defined as double leverage. The existence of double leverage allows the parent company to make equity infusions into its subsidiaries with debt financing or a combination of equity and debt financing. In the transcribed interview, the Company personnel maintained that all of the $450 million of debt held at American Water would be used for equity infusions.

The existence of double leverage is one of the conditions that David C. Parcell cites when determining if the subsidiary's capital structure is independent of its parent and hence, whether the consolidated parent capital structure or subsidiary capital structure should be utilized for ratemaking purposes. Specifically, David C. Parcell stated the following in his book, The Cost of Capital—A Practioner's Guide, 1997:

> Whether subsidiary's capital structure is independent of its parent (i.e., existence of double leverage, absence of proper relationship between risk and leverage of utility and non-utility subsidiaries).

Q. Do you have any other evidence that calls into question the appropriateness of the use of the capital structure proposed by MAWC?

A. Yes. Please see Schedule 1 attached to this surrebuttal testimony, which shows American Water's consolidated capital structure since 1990 and MAWC's purported capital structure since 1990. The first page of this Schedule shows the dollar amounts of the capital structure components, exclusive of short-term debt for both American Water and MAWC. The second page of the Schedule shows the capital structure ratios in percentage terms for American Water and MAWC. Although MAWC's business operations are essentially the same as American Water's consolidated operations, American Water has consistently maintained a lower common equity ratio on a consolidated basis than it has maintained at MAWC. It is obvious that American Water has determined that it is appropriate to finance its consolidated water operations with less equity than it allegedly maintains at MAWC. If a consolidated entity's operations are consistently confined to the same line of business as the subsidiary, then it would be safe to assume that the consolidated capital structure is a true indication of the company's view of the appropriate mix of capital to finance its water utility operations.

Q. Is the fact that a company's operations are largely confined to the same type of business as the subsidiary one of the considerations that David C. Parcell discusses in his book, The Cost of Capital—A Practioner's Guide, 1997?

A. Yes. David C. Parcell states the following consideration:

> Whether parent (or consolidated enterprise) is diversified into non-utility operations.

Q. Are American Water's operations largely confined to the water utility business?

A. Yes. In response to Staff Data Information Request 3820, MAWC indicated that the annual percentage of total of American Water revenues contributed by non-regulated operations amounted to 13.3% of such annual revenues. These revenues were received from American Water's subsidiaries, American Water Services and American Water Resources. The following description of these operations was provided in MAWC's response to Staff's data request:

> American Water Services provides a broad range of water and wastewater services, including management contract operations for municipal, industrial and military clients as well as providing residuals management, infrastructure development and engineering services. American Water Resources offers water and wastewater-related products and services such as the customer service line protection program.

Q. What effect would having some nonregulated operations have on American Water's consolidated capital structure?

A. It would require American Water to carry more equity on a consolidated basis in order to maintain its credit rating as opposed to if American Water's operations were strictly confined to regulated water utility operations. If American Water has higher-risk, nonregulated business ventures, then commonly understood financial theory dictates the need for more common equity in order to maintain a certain credit rating versus a company that does not have higher-risk, nonregulated business ventures. Therefore, utilizing American Water's consolidated capital structure for ratemaking purposes in this case is appropriate because even though American Water's nonregulated operations are limited, the inclusion of these nonregulated operations would require American Water to maintain a higher level of common equity than if American Water's operations were confined to regulated water utility operations.

Q. What is the most logical explanation for MAWC consistently having a higher common equity ratio than American Water on a consolidated basis?

A. As I explained earlier, American Water holds debt at the parent company level as well as MAWC holding debt at the subsidiary level. By carrying some debt at the parent company level rather than at the subsidiaries, American Water is able to produce subsidiary capital structures that are more heavily weighted in equity by using this debt for equity infusions into its subsidiaries, which would not be the case otherwise. However, this debt that is used for equity infusions into subsidiaries is still classified as debt at the parent company level and therefore, would be classified as debt in a consolidated capital structure. This is why the use of a consolidated capital structure for ratemaking purposes in this case is more appropriate because it truly reflects how American Water's operations are financed.

Q. On page 5, lines 13 through 15 of her rebuttal testimony, Ms. Ahern states that "[t]he actual capital financing of MAWC's jurisdictional rate base is relevant and appropriate for ratemaking purposes because it represents the actual dollars which are financing the jurisdictional rate base to which rates set in this proceeding will be applied." Do you agree that the "actual capital financing of MAWC's jurisdictional rate base" represent the "actual dollars which are financing the jurisdictional rate base?"

A. No, as I explained previously, Staff discovered during its interview of American Water and MAWC personnel that certain funds that are being acquired through the EIERA program are being used to pay off short-term debt owed to AWCC. It could easily be argued that those EIERA funds are not the actual dollars which are financing the jurisdictional rate base to which rates are set because those specific EIERA dollars are not

directly being spent on specific projects within the state of Missouri. They are just simply being used to pay off outstanding "debt" at AWCC.

Q. Do you agree with Ms. Ahern's characterization of American Water's consolidated capital structure as a hypothetical one on page 6, lines 21 through 22 of her rebuttal testimony?

A. No, if anything, the MAWC subsidiary capital structure is hypothetical. As I explained previously, American Water is able to give the appearance that its subsidiaries are more heavily weighted in equity because of equity infusions by the parent company. The source of financing for these equity infusions may actually be debt at the parent company level. Therefore, in order to understand how MAWC is truly financed it is more appropriate to utilize the verifiable American Water consolidated capital structure, which truly reflects the mix of capital that American Water has determined is appropriate to use to fund its water utility operations.

Q. How do you respond to Ms. Ahern's contention on page 6, line 9 through page 7, line 19 of her rebuttal testimony, that because MAWC's alleged capital structure is consistent with those of her proxy group and those of your comparable group of companies, that it is appropriate to utilize the subsidiary capital structure of MAWC?

A. While it may be important to review the capital structures of the industry in order to test the reasonableness of a recommended capital structure, it is also important to review the consolidated parent company's capital structure to determine how the company is typically financed. As can be seen on page 2 of Schedule 1 attached to this surrebuttal testimony, American Water has averaged a common equity ratio of 36.70 percent over the last thirteen years with a range of 32.74 percent as of 2002 to 40.19 percent as of 2000. It is

important to note that the equity ratio that Staff recommends in this case is consistent with how American Water has historically been capitalized. It is obvious that American Water has determined that a common equity ratio of around 35 percent is appropriate for its water utility operations and this should be factored into the recommended cost of capital in this case.

Q. On page 7, lines 29 through 30 of her rebuttal testimony, Ms. Ahern states that S&P would likely "assign a bond/credit rating of A to American Water Works and MAWC." Do you agree with her opinion?

A. Yes, but only because these entities receive indirect parental support from RWE. On page 2 of Ms. Ahern's Schedule PMA-13, S&P estimates that on a "stand-alone basis, AWCC could be rated at the upper end of the 'BBB' [BBB+] rating category." S&P bases this assessment on American Water's relatively weak financial profile. Therefore, because American Water and its subsidiaries would be rated lower than its current credit rating if it were a stand-alone entity, I believe it is more appropriate to compare S&P financial information for BBB-rated water utilities to the capital structures proposed in this case rather than financial information for A-rated water utilities. Page 12 of Ms. Ahern's Exhibit PMA-2 attached to her direct testimony, provides the same benchmarks for BBB-rated utilities that Ms. Ahern provides for A-rated utilities on page 7, line 31 through page 8, line 12 of her rebuttal testimony. S&P's financial target for total debt to total capital for a utility with a credit rating of BBB and a business position of "2" or "3" range from 56.5 percent to 63.5 percent and 53.0 percent to 61.0 percent respectively. As of the test year, the consolidated total debt to total capital ratio in my recommendation was 67.53 percent, only slightly higher than the target ranges for a company with a business position of a "2" or "3."

As of the update period, my recommended consolidated capital structure consisted of a total debt to total capital of 43.64 percent because American Water recently issued $1.75 billion in preferred stock. This results in less debt leverage for American Water.

Q. On page 12, lines 5 through 27 of her rebuttal testimony, Ms. Ahern again discusses why the use of American Water's consolidated capital structure is inappropriate for ratemaking purposes. She bases her opinion on her comparison of American Water's consolidated capital structure to S&P's financial targets for a utility whose bonds are A-rated and which is assigned a business position of "2" or "3." What could AWCC's credit rating be if it were rated on a stand-alone basis?

A. On page 2 of Ms. Ahern's Schedule PMA-13, S&P indicates that AWCC could be rated at the upper end of the BBB rating category.

Q. Does S&P's estimated credit rating contemplate how American Water is capitalized?

A. Yes. S&P made the following statement in its August 1, 2003 Research Report:

> American Water Works' financial profile is relatively weak for the current rating. Debt leverage has improved dramatically after the merger with RWE was completed, dropping to under 50% from just under 70% at year-end 2002. Funds from operations (FFO) to interest coverage is expected to continue to be under 3x over the intermediate term, while FFO to average total debt is expected to be just under 10% in the same period. Capital spending needs will only be partly internally funded with the balance funded through debt issuances in the capital markets or through intercompany loans with RWE.

Therefore, regardless of whether American Water's consolidated capital structure is within the ranges of financial targets utilized by S&P, S&P has stated in its August 1, 2003 Research Report, attached as Schedule PMA-13 to Ms. Ahern's rebuttal testimony, that based on the total risk of American Water, it could assign a BBB+ credit

rating to AWCC. Therefore, S&P has already stated the consolidated capital structure of American Water is appropriate for a BBB+ rated utility when this capital structure is viewed in light of its business risk and other financial indicators. The S&P financial targets indicated in Ms. Ahern's testimony are designed for purposes of assisting utilities, utility affiliates, and the investment community in assessing the relative financial strength of issuers. By no means are these targets concrete numbers. They are exactly what they are labeled, financial targets.

Q. Please summarize why it is appropriate to utilize American Water's consolidated capital structure for ratemaking purposes in this case.

A. As Ms. Ahern pointed out in her rebuttal testimony on page 4, lines 21 through 35, there are certain considerations that are identified in David C. Parcell's book, The Cost of Capital—A Practitioner's Guide, 1997 that may be reviewed by an analyst or witness, in determining if the consolidated capital structure is appropriate, or if the subsidiary utility capital structure is appropriate. Ms. Ahern only listed three of the considerations in her rebuttal testimony. The following list contains all four of the considerations:

1. Whether subsidiary utility obtains all of its capital from its parent, or issues its own debt and preferred stock.

2. Whether parent guarantees any of the securities issued by the subsidiary.

3. Whether subsidiary's capital structure is independent of its parent (i.e., existence of double leverage, absence of proper relationship between risk and leverage of utility and non-utility subsidiaries).

4. Whether parent (or consolidated enterprise) is diversified into non-utility operations.

The testimony I have submitted provides support that all of these considerations justify the use of a consolidated capital structure for ratemaking purposes for MAWC.

The first item mentioned above is clear that if a subsidiary obtains all of its capital from its parent, which includes debt and equity, then it would be appropriate to utilize a consolidated capital structure. However, if the subsidiary issues its own debt and preferred stock, then it is not clear that this requires the subsidiary to issue *all* of its own debt and preferred stock, or just some of it. I maintain that the subsidiary should issue all of its own debt and preferred stock in order for the subsidiary capital structure to be appropriate and verifiable. Otherwise there are debt issuances contained in subsidiary capital structure that are allocations from the parent company. It is undisputed from American Water's 2002 Annual Report that American Water has indicated that AWCC will be the "*primary"* funding vehicle for its subsidiaries going forward, and from this fact, it appears reasonable to conclude that AWCC will be the main source of debt financing for MAWC.

The second item in the list above reasonably implies that if a parent company guarantees the debt of its subsidiaries, then it would be more appropriate to utilize a consolidated parent company capital structure. Ms. Ahern maintains that because S&P states that American Water does not "guaranty" the debt issued by AWCC and allocated down to its subsidiaries that this lends support to utilizing a subsidiary capital structure. However, in no uncertain terms, American Water itself, in its 2002 Annual Report indicates that it has "fully and unconditionally guaranteed the securities of AWCC." Obviously, American Water characterizes its "support agreement" as a guaranty, whether it is a legal guaranty or

not. I agree with American Water's classification that this is a guaranty, meaning that they will assure payment on AWCC debt.

The third item above states that the subsidiary capital structure has to be considered independent in order for it to be appropriate, otherwise the consolidated parent capital structure should be used. Because American Water employs double leverage and because debt from AWCC is allocated down to the subsidiaries of American Water, it is clear that MAWC's capital structure is not independent.

The fourth item from the list above indicates that if the parent isn't diversified into non-utility operations, then it would be appropriate to utilize the consolidated parent capital structure because that approach would be consistent with how the parent company normally finances its operations. Currently, the non-regulated operations of American Water are not material contributors (13.3 percent) to its overall revenues. Consequently, this consideration also provides support for the use of the consolidated parent capital structure.

Not only do all four of the considerations noted by David C. Parcell provide support for the utilization of the consolidated parent capital structure, but there are other factors that make it clear that the consolidated parent capital structure is appropriate. First, as previously indicated, American Water has averaged a 36.70 percent common equity ratio since 1990. The common equity ratio that I have recommended for MAWC is 35.28 percent for the update period. It is clear that American Water has determined that an equity ratio near 35 percent is appropriate for its water operations. Second, the capitalization of American Water is consistent with that of a BBB rated utility and S&P has stated that if it were to rate American Water on a stand-alone basis, they would rate them BBB+.

For all of the above reasons, the use of a consolidated capital structure is appropriate for MAWC.

Q. Is it appropriate to include short-term debt in your recommended capital structure?

A. Yes. It has been the policy of this Commission that if the amount of short-term debt exceeds the Construction Work in Progress (CWIP) balance, then it is appropriate to include this excess balance in the recommended capital structure for ratemaking purposes. The appropriate amount of short-term debt to include in the capital structure has been updated and attached to my rebuttal testimony as Updated Schedule 9.

Q. Ms. Ahern disagrees with the inclusion of short-term debt on page 13, lines 13 through 26 of her rebuttal testimony. Does this rebuttal apply to your direct testimony?

A. No. Her rebuttal only applies to Mr. Burdette because he analyzed MAWC short-term debt and CWIP information, where I utilized American Water consolidated short-term debt and CWIP information.

Q. On page 14, lines 6 through 15 of her rebuttal testimony, Ms. Ahern explains why you shouldn't have included a negative 7.34 percent historical growth rate in developing your average annual compound growth rates. Do you agree that you shouldn't include this negative growth rate in your averages?

A. No. Ms. Ahern indicates that it is illogical that investors would rely upon such a growth rate, as investors do not invest in securities expecting to lose money. While I agree that investors will not invest in securities expecting to lose money, I do not agree that investors, and hence rate-of-return witnesses, should not take such growth rates into consideration. To do otherwise would be irresponsible. An investor cannot pretend negative

growth rates have not occurred. An investor should take into consideration these negative growth rates when estimating what he thinks a reasonable growth rate would be for the investment. If a rate-of-return witness disregards negative growth rates, because apparently they haven't happened, then that witness will be achieving the benefit of a higher dividend yield without considering that the reason for that higher dividend yield is because of lower growth rate expectations. The exclusion of the negative growth rates would result in a recommendation that not only has a higher growth rate, but a higher dividend yield because previous growth rates did not meet expectations so investors drove the price of the stock down.

In addition, it should be noted that I also included the higher growth rate of 9.00 percent in my averages for California Water Services Group. While I don't believe the 9.00 percent growth rate is sustainable, and therefore investors would not expect a 9.00 percent growth rate into the indefinite future, I still included it in my averages in order to be able to fully evaluate all of the growth rates.

Q. Is it possible that investors will expect negative growth for a company in the future?

A. Yes. While this negative growth may not occur indefinitely, it is quite possible that investors would expect negative growth for at least the near future. If this were the case, then this would affect an investors expectations over a longer period of time. If these near term negative growth rates cause some investors to not invest in a stock, then as indicated before, the price of the stock would be driven down. This would cause the dividend yield to increase. If negative growth rates are not considered by the rate-of-return witness, then the witness's DCF results will be upwardly-biased because the dividend yield

will be higher because investors have driven the price of the stock down. Additionally, the growth rates will be higher because negative growth rates were disregarded by the rate-of-return witness.

If the dividend yield rises because the growth projections do not turn out as expected, then a prudent rate-of-return witness would lower his estimated growth rate to take this into consideration. It is not proper to recognize the benefit of the higher dividend yield, but not recognize the lower growth that caused the higher dividend yield.

Q. On page 14, lines 17 through 18 of her rebuttal testimony, Ms. Ahern contends that page 3 of her Schedule PMA-15 indicates that I/B/E/S is the source of S&P's growth rates. Can you find anything on this page of Ms. Ahern's Schedule PMA-15 that verifies that her claim is correct?

A. No. There isn't anything specific on page 3 of her Schedule PMA-15 that indicates that I/B/E/S is the source of S&P's growth rates.

Q. On page 15, lines 8 through 11 of her rebuttal testimony, Ms. Ahern indicates that the midpoint of your recommended cost of common equity understates the common equity cost rate "because it reflects the average financial risk of the comparable companies whose common equity ratio averaged 45.95% in 2002 and does not reflect the financial risk inherent in his recommended 31.85% common equity ratio which will be discussed in detail subsequently." Do you agree that your adjusted midpoint reflects the average financial risk of the comparable companies?

A. No. It would be appropriate to indicate that my unadjusted cost of common equity midpoint of 8.43 percent reflects the financial risk and business risk of the comparable companies. However, because American Water could be rated BBB+ on a stand-alone basis,

and therefore, MAWC could be rated BBB+ following Ms. Ahern's logic on page 7, lines 23 through 30 of her rebuttal testimony, as indicated by S&P in its August 1, 2003 Research Report attached to Ms. Ahern's rebuttal testimony as Schedule PMA-13, I decided to adjust my recommended cost of common equity by 33 basis points, which is the spread between the bond yields on A-rated utilities and the bond yields on BBB-rated utilities. Therefore, my initial cost of common equity range of 7.93 to 8.93 reflected the financial risk of my comparable group of companies. My adjusted recommended cost of common equity takes into consideration the total risk, which includes MAWC's financial risk, differential between the comparable group and MAWC. One cannot focus exclusively on the differences in financial risk when recommending adjustments to a recommended cost of common equity based on a proxy group.

Q. Does Ms. Ahern provide any authoritative support in her direct testimony for utilizing credit ratings to compare the risk differentials between companies, which would refute her claim in her rebuttal testimony that your adjusted recommended cost of common equity does not reflect the increased financial risk of your recommended capital structure?

A. Yes. On page 10, lines 5 through 23 of her direct testimony, Ms. Ahern indicates how one can go about measuring the combined business and financial risks, i.e., investment risk of an enterprise. Ms. Ahern specifically states the following:

> Similar bond ratings reflect similar combined business and financial risks, i.e. total risk. Although the specific business or financial risks may differ between companies, the same bond rating indicates that the combined risks are similar as the bond rating process reflects acknowledgment of all diversifiable business and financial risks. For example, S&P expressly states that the bond rating process encompasses a qualitative analysis of business and financial risks (see pages 3 through 10 of Schedule PMA-2.) There is no perfect single proxy, such as a bond rating or common stock ranking, by which one can differentiate common equity risk between companies. However,

> the bond rating provides a useful means to compare/differentiate common equity risk between companies because it is the result of a thorough and comprehensive analysis of all diversifiable business and financial risks, i.e., investment risk.

Consequently, even Ms. Ahern indicates that it is appropriate to utilize the credit rating process to "compare/differentiate common equity risk between companies because it is the result of a thorough and comprehensive analysis of all diversifiable business and financial risks, i.e., investment risk." This provides support for my utilization of the spread in bond yields between A-rated utilities and BBB-rated utilities to measure the risk premium that is associated with the difference in financial and business risk between the comparables and the subject company.

Q. Do you have any other support for utilizing the spreads between the yields on a BBB-rated utility bonds versus A-rated utility bonds in order to make a risk adjustment?

A. Yes. Dr. Roger A. Morin discusses this risk adjustment process on page 206 of his book, Regulatory Finance Utilities' Cost of Capital, 1994. The following methodology is discussed regarding the adjustment for differential risk:

> The DCF results derived from The Southern Company market data must then be adjusted in order to apply them to Georgia Power. The Southern Company's cost of equity reflects the weighted average risk of its constituent subsidiaries. Since at this time, four of its five operating subsidiaries are rated A/A and have less business and regulatory risks, relative to its sister companies, while the fifth subsidiary, Georgia Power, is rated Baa/BBB and experiences greater business and regulatory risk, the expected equity return applicable to Georgia Power, to the extent that it was partially derived from market data based on The Southern Company, is slightly downward-biased.
>
> The downward bias is 25 basis points. This estimate is based on two sources. First, the average spread between A-rated and Baa-rated utility bonds in recent years has been about 40 basis points…

Therefore, the spread between the yields on BBB-rated utility bonds and A-rated utility bonds captures the differences in business and financial risk between MAWC and the proxy companies that I utilized.

Q. On page 15, line 27 through page 16, line 1 of her rebuttal testimony, Ms. Ahern criticizes your use of the 30-year U.S. Treasury Bond because it is no longer issued. Is the 30-year U.S. Treasury Bond still traded in the secondary markets?

A. Yes. Therefore, there is a market determined yield on the 30-year U.S. Treasury Bond. If there is a market determined yield, then it is appropriate to utilize the 30-year U.S. Treasury Bond.

Q. Does Ms. Ahern rely on the yield of the 30-year U.S. Treasury Bond indirectly in her use of prospective yields in her execution of the CAPM?

A. Yes. Ms. Ahern relies on the current forecasted consensus yield on long-term U.S. Treasury bonds reported in Blue Chip Financial Forecasts dated October 1, 2003. On page 7 of Ms. Ahern's Schedule PMA-9, there is a notation that indicates that the definitions of the interest rates indicated on that page are the same as those in FRSR (Federal Reserve Release) H.15. FRSR H.15 defines long-term U.S. Treasury bonds as bonds with a maturity of 25 years and above, which would clearly include 30-year U.S. Treasury bonds.

Q. On page 15, lines 26 through 27 of her rebuttal testimony, Ms. Ahern indicates that it is inappropriate to utilize a historical yield as the risk-free rate in a CAPM analysis. Do you agree?

A. No. A current yield or average recent yield is a known and measurable risk-free rate to utilize in the execution of the CAPM. In most of the valuations done in the textbook by Aswath Damodaran, INVESTMENT VALUATION: Tools and Techniques for

Determining the Value of *Any* Asset, 1996, which is a textbook used in the curriculum for students seeking the Chartered Financial Analyst (CFA) designation, an historical yield is used as the risk-free rate in the execution of the CAPM. In addition the following discussion about the use of prospective yields was contained on page 309 of Dr. Roger A. Morin's book, Regulatory Finance Utilities' Cost of Capital, 1994:

> Over the last 50 years, the Treasury bill rate has approximately equaled the annual inflation rate, as demonstrated in Fama (1975) and Ibbotson Associates (1993). Refined techniques to forecast inflation based on the current shape of the yield curve could thus be employed to obtain the expected risk-free rate.[5] Alternately, the consensus inflation forecast by economists over the requisite horizon could be employed to derive the risk-free rate estimate. However, none of these techniques is likely to provide superior estimates to that supplied by current yield data. The complexity and computational costs are likely to outweigh their marginal usefulness.

Consequently, it is appropriate to utilize an historical yield as the risk-free rate in a CAPM analysis.

Q. On page 16, line 9 through page 17, line 6 of her rebuttal testimony, Ms. Ahern indicates that you used the wrong historical risk premium because you used the total return for long-term government bonds rather than just the income return on the government bonds. Is an investor in government bonds only going to receive a return based on the coupon of the bond, which is the income from the interest rate stated on the bond?

A. Only if the investor holds the bond until maturity and they bought the bond at par value. Otherwise investors will receive a total return, which is based on changes in the price of the bond and reinvestment returns. Therefore, it is appropriate to measure the market risk premium by comparing total returns on stocks versus total returns on risk-free treasuries because this is what investors will expect to receive.

Q. How were the expected risk premiums calculated in the June 16, 2003 *Fortune* magazine article, "Can Stocks Defy Gravity? That's what Wall Street wants you to believe. Don't buy it. The best minds say the market will rise, but it won't soar?"

A. They were calculated by subtracting the ten-year Treasury Bond yield of 3.5 percent from an expected stock market return of 6.5 percent. The yield of the ten-year Treasury Bond reflects the total return that investors expect to receive from the Treasury Bond, not just the income yield. Consequently, it is appropriate to calculate the risk premium by subtracting the total return on treasuries from the total return on stocks versus just the income return on treasuries from total return on stocks.

Q. On page 17, lines 7 through 9 of her rebuttal testimony, Ms. Ahern indicates that it is inappropriate for you to utilize only historical market equity risk premium in your application of the CAPM. Do you agree?

A. No. In light of some of the projections of overall market returns over the next ten years by such well know academicians and investors such as Jeremy Siegel and Warren Buffett of anywhere from 7 to 10 percent, I believe the utilization of an historical market return of 12.2 percent is an optimistic projection of market return for the determination of a market risk premium. If I had used these well known individuals' predictions of future market returns in determining the market risk premium, then my results for the CAPM would have been even lower. I have already explained my concerns about Ms. Ahern's utilization of Value Line's 3-5 year median total market price appreciations on page 35, line 32 through page 37, line 12 of my rebuttal testimony.

Q. On page 18, lines 4 through 20 of her rebuttal testimony, Ms. Ahern claims that you should have utilized the empirical CAPM. Do all financial texts suggest that it is appropriate to utilize the empirical CAPM?

A. No. The textbook by Aswath Damodaran, INVESTMENT VALUATION: Tools and Techniques for Determining the Value of *Any* Asset, 1996 does not recommend any adjustment to beta for the CAPM. This textbook follows the traditional execution of the CAPM throughout the text.

Q. On page 18, line 22 through page 19, line 15 of her rebuttal testimony, Ms. Ahern criticizes your utilization of the current yield on U.S. Treasury bonds. Has Ms. Ahern provided any additional support to refute the use of the current yield on U.S. Treasury bonds other than her previous arguments contained in her discussion on the use of this rate in the execution of the CAPM?

A. No.

Q. On page 21, lines 11 through 15 of her rebuttal testimony, Ms. Ahern claims that you didn't make an upward adjustment to your recommended cost of common equity to reflect the greater risk inherent with a 31.85 percent common equity ratio. Did you make an adjustment to take into consideration MAWC's greater financial risk?

A. Yes. I explained the adjustment I made to my initial DCF results to take into consideration the greater overall risk of American Water and hence, MAWC on page 33, lines 1 through 33 of my direct testimony. For ease of reference, I will repeat my explanation of the adjustment I made.

> As illustrated in column 5 of Schedule 17, the average cost of equity based on the projected dividend yield added to the average of historical and projected growth is 8.43 percent. However, I made an upward adjustment of 33 basis points in order to take into

> consideration the fact that in a report issued by Standard & Poor's on July 15, 2003, Standard & Poor's indicated that it believed that on a stand-alone basis, American Water could be rated at the upper end of the BBB rating category, which would be BBB+. Considering that the average credit rating of the comparable companies is A+ (Schedule 21), it is appropriate to make an adjustment to the estimated cost of common equity for the proxy group to reflect the riskier position of American Water. In order to do this, I calculated the average spread of the bond rates for BBB-rated and A-rated public utilities for the past eight years, as published in the Mergent Bond Record, September 2001 and June 2003. This calculation showed a spread of 33 basis points between A-rated bonds and BBB-rated bonds for the past eight years. Because the number of credit rating notches between an A+ and BBB+ credit rating is the same as the number of credit rating notches between an A and BBB credit rating, I chose to use the full 33 basis point spread as an upwards adjustment to the DCF recommended cost of common equity for Missouri-American.

This adjustment resulted in my recommended cost of common equity of 8.26 to 9.26 percent.

Q. On page 22, line 28 through page 24, line 2 of her rebuttal testimony, Ms. Ahern discusses various measures that she believes indicates that your recommended cost of common equity will not result in an adequate risk premium. Do you agree with her contentions?

A. No. Ms. Ahern chooses to compare my recommended cost of common equity to various external indicators such as the yields on Moody's A-rated public utility bonds, and Moody's Baa-rated public utility bonds. She uses these current yield spreads in order to determine what the estimated prospective yields would be for A and Baa-rated public utility bonds. American Water has recently issued preferred stock at an interest rate well below those interest rates indicated by these external indicators. The recent $1.75 billion preferred stock issuance was issued at a yield of 5.9 percent, 286 basis points below the midpoint of my recommended cost of common equity and 66 basis points below the September 2003 yield on Moody's A-rated public utility bonds. Preferred stock is generally considered to

contain more risk than debt. Therefore, one would expect that the yield on the preferred stock would be higher than the external indicators referenced by Ms. Ahern, but because apparently investors are of the opinion that American Water has less risk than the investments underlying these external indicators, they are not requiring as high of a return for their investment in American Water securities. This provides support for the reasonableness of my recommended cost of common equity for MAWC.

Q. Do you have any further evidence that your recommended cost of common equity is reasonable as it relates to the risk premium allowed?

A. Yes. I discussed this issue generally in my rebuttal testimony. The discussion in my rebuttal testimony addressed expected market returns, but the same article in *Fortune* magazine on June 16, 2003, "Can Stocks Defy Gravity? That's what Wall Street wants you to believe. Don't buy it. The best minds say the market will rise, but it won't soar," discussed the expected market risk premiums that can be expected for equities over the next several years. This article, which featured several well-respected academicians such a Jeremy Siegel of The Wharton School of the University of Pennsylvania, and Cliff Asness, Ph.D. at the University of Chicago, indicates that investors can expect to collect only 3 percent more than their stock portfolio than on Ten-Year Treasury Bonds. This expected risk premium is based on the entire market and is the risk premium over government bonds. If one were to look at the beta adjusted risk premium for water utility companies, the risk premium would be even less than this 3 percent. Based on a beta of .60, which is the approximate midpoint of the .58 beta for my comparable companies and the .63 beta of Ms. Ahern's comparable companies, the risk premium over Ten-Year Treasury Bonds would be 180 basis points. The midpoint of my recommended cost of common equity is

currently 434 basis points higher than the Ten-Year Treasury Bond yield of 4.42 percent as of December 1, 2003 as quoted on CBS MarketWatch's website, *http://cbs.marketwatch.com*.

Q. On page 24, line 4 through page 26, line 7 of her rebuttal testimony, Ms. Ahern discusses why my recommended range of cost of common equity of 8.26 percent to 9.26 percent does not provide MAWC with an adequate opportunity for pretax interest coverage. She provides her derivation of a pretax interest coverage ratio of 2.34 to 2.48 times on her Schedule PMA-20. This derivation is based on converting my recommendation based on the consolidated capital structure to the capital structure she recommends in her direct testimony. Do you agree that this pretax interest coverage is inadequate?

A. No. First, as I explained previously, American Water, if it were rated on a stand-alone basis would be rated BBB+ as indicated by S&P. Therefore, if one were to compare pretax interest coverage ratios of MAWC and/or American Water to benchmarks, then it would be more appropriate to compare them to the benchmarks for BBB-rated utilities with business positions of "2" or "3." The range of pretax interest coverage ratios indicated on page 12 of Ms. Ahern's Schedule 2 attached to her direct testimony, for companies with a business position of "2" and a BBB credit rating are 1.3 to 2.3 times. The range of pretax interest coverage ratios for a company with a business position of "3" and a BBB credit rating are 1.8 to 2.8 times. My pretax interest coverage estimates of 2.06 to 2.19 times contained on Schedule 22 in my direct testimony fall comfortably within these ranges. Ms. Ahern's derived pretax interest coverage ratios of 2.34 to 2.48 times are well above these ranges. Therefore, my recommendation provides MAWC ample opportunity to meet the pretax interest coverage requirements contained in the St. Louis County Water Company

indenture agreement that MAWC provided in response to Staff Data Information Request 3806.

Q. What was American Water's average and range of pretax interest coverage ratio for the years 1991 through 2001?

A. American Water's average pretax interest coverage ratio was 2.25 times with a range of 2.1 to 2.4 times.

Q. Does your range fall close to the average and the range for American Water?

A. Yes. The average pretax interest coverage ratio is slightly above the upper part of my range. The midpoint and the upper end of my estimated range of pretax interest coverage ratios is within the range for American Water from 1991 to 2001. Ms. Ahern's estimates of pretax interest coverage for MAWC are well above this range.

Q. Do you agree with Ms. Ahern's characterization of your recommended cost of common equity as being from 6.59 percent to 7.33 percent?

A. No. Ms. Ahern is backing into this number by first of all taking my pretax coverage ratios times the sum of my weighted costs of debt. She then subtracts from this result her recommended weighted costs of long-term debt and preferred stock in order to arrive at a before-income tax weighted cost rate of common equity. She then factors taxes into this weighted cost of common equity to arrive at an after tax cost of common equity. Finally, she divides the range of weighted common equity costs after taxes by the common equity ratio that she proposes for MAWC to arrive at what she indicates is my recommended overall cost of common equity for MAWC based on her recommended capital structure.

Q. Does the overall rate of return derived by Ms. Ahern in her Schedule PMA-20 understate your recommended overall rate of return?

A. Yes. The rate of return that Ms. Ahern backed into results in a range of 6.40 percent to 6.72 percent. The rate of return that I recommended in my direct testimony was 6.66 percent to 6.98 percent.

Q. Assuming Ms. Ahern's calculations and logic are correct, what would have to be true in order for her characterization of your recommended cost of common equity to hold any credibility?

A. The capital structure proposed by Ms. Ahern would have to be considered the appropriate capital structure for ratemaking purposes in this case. I have demonstrated why MAWC's alleged subsidiary capital structure is inappropriate for ratemaking purposes. American Water's capital structure and the costs associated with it are appropriate for establishing the proper rates for MAWC.

Summary and Conclusions

Q. Please summarize the conclusions of your surrebuttal testimony.

A. My conclusions regarding the capital structure and cost of common equity are listed below.

1. The use of MAWC's capital structure as proposed by OPC and MAWC is inappropriate. It does not reflect American Water's actual support of the capital of its subsidiary, MAWC. In addition MAWC has failed to recognize any short-term debt in the capital structure. The calculation of the cost of capital for MAWC should be based on American Water's actual consolidated capital structure as of June 30, 2003, as shown in my updated Schedule 9 attached to my rebuttal testimony; and

2. My cost of common equity stated in the updated Schedule 24 attached to my rebuttal testimony, which is 8.26 percent to 9.26 percent, would produce a fair and reasonable rate of return of 6.67 percent to 7.03 percent for the Missouri jurisdictional water utility rate base for MAWC.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

Historical Consolidated Capital Structures for American Water

(*Dollars in thousands)*

Capital Components	1990	1991	1992	1993	1994	1995	1996
Common Equity	$646,764.0	$706,098.0	$755,262.0	$805,660.0	$895,031.0	$992,240.0	$1,241,167.0
Preferred Stock	48,122.0	106,770.0	109,529.0	104,490.0	101,698.0	100,287.0	99,012.0
Long-Term Debt	990,803.0 *	1,154,792.0 *	1,235,820.0 *	1,402,798.0 *	1,591,119.0 *	1,642,453.0 *	2,006,966.0
	$1,685,689.0	$1,967,660.0	$2,100,611.0	$2,312,948.0	$2,587,848.0	$2,734,980.0	$3,347,145.0

Capital Components	1997	1998	1999	2000	2001	2002
Common Equity	$1,341,946.0	$1,239,174.0	$1,634,798.0	$1,669,677.0	$1,758,018.0	$1,801,921.0
Preferred Stock	97,663.0	97,089.0	93,811.0	52,693.0	49,415.0	33,858.0
Long-Term Debt	2,129,228.0 *	2,159,332.0 *	2,431,452.0 *	2,432,560.0 *	2,716,106.0 *	3,668,589.0 *
	$3,568,837.0	$3,495,595.0	$4,160,061.0	$4,154,930.0	$4,523,539.0	$5,504,368.0

Historical Consolidated Capital Structures for Missouri-American

(*Dollars in thousands)*

Capital Components	1990	1991	1992	1993	1994	1995	1996
Common Equity	$11,995.8	$12,482.1	$12,674.9	$12,687.7	$24,105.4	$26,893.0	$31,355.0
Preferred Stock	230.0	2,696.0	2,662.0	2,628.0	2,594.0	2,846.0	2,820.0
Long-Term Debt	17,279.5 *	16,852.8 *	13,678.9 *	15,313.6 *	27,296.7 *	38,888.2 *	40,352.9
Total	$29,505.3	$32,030.9	$29,015.8	$30,629.3	$53,996.1	$68,627.2	$74,527.9

Capital Components	1997	1998	1999	2000	2001	2002
Common Equity	$34,894.8	$45,687.4	$47,632.4	$65,203.0	$196,249.3	$210,931.1
Preferred Stock	2,794.0	2,768.0	2,742.0	2,716.0	2,704.0	2,692.0
Long-Term Debt	47,795.5 *	65,475.9 *	65,010.0 *	93,495.0 *	234,146.4 *	290,130.0 *
Total	$85,484.3	$113,931.3	$115,384.4	$161,414.0	$433,099.7	$503,753.1

Note: *Includes current maturities on long-term debt.

Sources: American Water's 2002 and 2000 Annual Reports.
Missouri American Water Company's Annual Reports filed with the MoPSC for Periods Ending December 31, 1990 - 2001 and MAWC's response to Staff Data Information Request 3801.

Historical Consolidated Capital Structures for American Water

(In Percentages)

Capital Structure	1990	1991	1992	1993	1994	1995	1996
Common Equity	38.37%	35.89%	35.95%	34.83%	34.59%	36.28%	37.08%
Preferred Stock	2.85%	5.43%	5.21%	4.52%	3.93%	3.67%	2.96%
Long-Term Debt	58.78% *	58.69% *	58.83% *	60.65% *	61.48% *	60.05% *	59.96%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Capital Structure	1997	1998	1999	2000	2001	2002	**Average**
Common Equity	37.60%	35.45%	39.30%	40.19%	38.86%	32.74%	**36.70%**
Preferred Stock	2.74%	2.78%	2.26%	1.27%	1.09%	0.62%	**3.02%**
Long-Term Debt	59.66% *	61.77% *	58.45% *	58.55% *	60.04% *	66.65% *	**60.27%**
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Historical Consolidated Capital Structures for Missouri-American

(In Percentages)

Capital Structure	1990	1991	1992	1993	1994	1995	1996
Common Equity	40.66%	38.97%	43.68%	41.42%	44.64%	39.19%	42.07%
Preferred Stock	0.78%	8.42%	9.17%	8.58%	4.80%	4.15%	3.78%
Long-Term Debt	58.56% *	52.61% *	47.14% *	50.00% *	50.55% *	56.67% *	54.14%
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Capital Structure	1997	1998	1999	2000	2001	2002	**Average**
Common Equity	40.82%	40.10%	41.28%	40.39%	45.31%	41.87%	**41.57%**
Preferred Stock	3.27%	2.43%	2.38%	1.68%	0.62%	0.53%	**3.89%**
Long-Term Debt	55.91% *	57.47% *	56.34% *	57.92% *	54.06% *	57.59% *	**54.54%**
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	

Note: *Includes current maturities on long-term debt.

Sources: American Water's 2002 and 2000 Annual Reports.
Missouri American Water Company's Annual Reports filed with the MoPSC for Periods Ending December 31, 1990 - 2001 and MAWC's response to Staff Data Information Request 3801.