Exhibit No. ____
Issue: Rate of Return
Witness: Harold Walker, III
Type of Exhibit: Rebuttal
Sponsoring Party: MAWC
Case No.: WR-2000-281
Case No.: SR-2000-282
Date: May 25, 2000

MISSOURI PUBLIC SERVICE COMMISSION
Case No. WR-2000-281
Case No. SR-2000-282

SURREBUTTAL TESTIMONY

OF HAROLD WALKER, III

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

FILED
MAY 2 5 2000
Missouri Public Service Commission

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, INC.

HARRISBURG, PENNSYLVANIA

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water Company's tariff sheets designed to implement general rate increases for water and sewer service provided to customers in the Missouri service area of the Company.	)))))	Case No. WR-2000-281

County of Montgomery)
) ss
State of Pennsylvania)

AFFIDAVIT OF Harold Walker

Harold Walker, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Surrebuttal Testimony of Harold Walker, III"; that said testimony was 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, information and belief.

Harold Walker III

Subscribed and sworn to before me this 23rd day of May ,2000.

Ruth Ann Burns

Notary Public

My Commission expires:

Oct. 21, 2002

Notarial Seal
Ruth Ann Burns, Notary Public
Upper Merion Twp., Montgomery County
My Commission Expires Oct. 21, 2002

SURREBUTTAL TESTIMONY
OF
HAROLD WALKER, III
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INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Harold Walker, III. My business address is P. O. Box 80794, Valley Forge, Pennsylvania, 19484.

Q. ARE YOU THE SAME HAROLD WALKER WHO PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY AT THIS TIME?

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimonies submitted by Commission Staff (Staff) witness Roberta McKiddy, the Office of the Public Counsel (OPC) witness Mark Burdette and the end result of the rate base disallowances proposed by various witnesses in their rebuttal testimonies. My surrebuttal testimony is supported by Schedule HW-6, which is composed of 3 parts.

RESPONSE TO MS. MCKIDDY'S CRITIQUE

Q. ON PAGE 2, MS. MCKIDDY CLAIMS THAT SHE PERFORMED A COMPANY-SPECIFIC DISCOUNTED CASH FLOW (DCF) MODEL ROE

ANALYSIS FOR MAWC. IS THIS TRUE?

A. No. Ms. McKiddy performed a DCF for AWK, not MAWC. Although MAWC is a subsidiary of AWK, it represents a relatively small percentage AWK as shown in Table 1. Moreover, MAWC is exposed to much more risk relative to AWK as a result of its smaller size and lack of diversification.

TABLE 1

	1998 Year-end Data		MAWC As a %
	MAWC	AWK	Of AWK
Subsidiaries	1	23	4%
States of Operations	1	22	5%
Customers	94,000	1,942,000	5%
Population	260,500	7,000,000	4%
Net Utility Plant	$143,047,000	$4,153,206,000	3%
Revenue	$29,223,000	$1,017,812,000	3%

The size of a company affects risk. AWK has a more diverse geographic operation than MAWC, which enables it to sustain earnings fluctuations caused by abnormal levels of rainfall in one portion of its service territory. Since AWK operates in more than one regulatory jurisdiction, it enjoys "regulatory diversification" which makes it less susceptible to adverse regulatory developments in any single jurisdiction. Further, AWK has a more diverse customer base and is less susceptible to downturns associated with regional economic conditions than MAWC. AWK's wide ranging operations provide AWK shareholders substantial geographic, economic, regulatory, weather and customer diversification. Even if MAWC's assets possessed the same or identical earnings power as AWK, investors would choose AWK over MAWC as an investment due to its large size and accompanying risk reducing diversification. Accordingly, even if Ms. McKiddy's equity cost rate were appropriate for AWK, it understates MAWC's cost of equity.

Q. DO THE MISSOURI JURISDICTIONAL OPERATIONS OF AWK AND UNITED WATER RESOURCES REPRESENT A SIGNIFICANT PERCENTAGE OF EACH COMPANY'S TOTAL OPERATIONS?

A. No. The Missouri jurisdictional operations of AWK represent about 3% of its total operations and the Missouri jurisdictional operations of United Water Resources represent less than 1% of its total operations.

Q. ON PAGE 3, MS. MCKIDDY CLAIMS THAT YOU DID NOT PERFORM A "COMPANY-SPECIFIC ANALYSIS FOR MISSOURI-AMERICAN WATER WITH WHICH TO COMPARE THE RESULTS . . . "OF YOUR VALUE LINE GROUP OF WATER COMPANIES. IS THIS TRUE?

A. No. Pages 11 through 22 of my direct testimony and Schedules 6 through 11 of Schedule HW-2, attached to my direct testimony, present a financial analysis and risk analysis in which I compared MAWC to my Value Line Group of Water Companies. These analyses clearly illustrate that MAWC is exposed to more risk than the Value Line Group.

Q. ON PAGE 4, MS. MCKIDDY CITES VALUE LINE AND STATES THAT THE WATER UTILITY INDUSTRY WILL EARN 11% ROE IN 2000. SHE CLAIMS THAT THIS SUPPORTS HER RECOMMENDATION. IS THIS A FAIR COMPARISON?

A. No. MAWC is riskier than the Value Line Water Group of companies. Therefore, even if 11% ROE were fair for the Value Line water companies it understates MAWC's cost of equity. Further, Ms. McKiddy recommends a range of 9.5% to only 10.75%. The average of this range, 10.13%, is 90 basis points below the Value Line water companies' ROE for 2000 and 190 basis points below Value Line's projection of 12% ROE for 2002-04.

Q. IS VALUE LINE'S PROJECTED 12% ROE A REASONABLE EXPECTATION FOR WATER UTILITIES?

A. Yes. Currently, A rated public utility debt is yielding 8.82% or 40 basis points higher than the yield on A rated public utility debt when my rebuttal testimony was prepared. Schedule HW-6.1 shows the most recent authorized returns since 1997 for 47 water utilities as reported in the <u>NAWC 1998 Financial & Operating Data for Investor-Owned Water Utilities</u>. On average, the 47 water utilities were authorized a return of 10.9% when A rated public utility bonds yielded 7.20% or over 160-basis points lower than today's yield of 8.82%. The authorized returns were adjusted to take into account changes in A rated public utility bond yields since the authorization date. As shown on Schedule HW-6.1, adjusting for bond yield changes results in an average authorized return of 12.48% for the 47 water utilities. The average of the lowest quartile is even 12.09%. A comparable opportunity return for similar risk enterprises demonstrates the inequities of Ms. McKiddy's recommendation 9.50% to 10.75% for MAWC.

Capital is provided by investors based upon risk and return opportunities. Investors will not provide common equity capital when higher risk-adjusted returns are available. Ms. McKiddy's recommended common equity cost rate is unreasonably low. Particularly in light of current bond yields

Q. ON PAGE 5, MS. MCKIDDY STATES THAT A SIZE ADJUSTMENT IS NOT NECESSARY IN A CAPM ANALYSIS. IS THIS CORRECT?

A. No. Ms. McKiddy's CAPM relies upon Ibbotson Associates' market premium found in its annual "Year Book" publication. Ibbotson Associates devote a significant amount of its annual "Year Book" publication to the discussion of size premiums and the importance of including size premiums when calculating a CAPM. Ms. McKiddy's CAPM does not include Ibbotson Associates' required size premium adjustment even though the source of her information states that a size adjustment is necessary.

Q. MS. MCKIDDY STATES THAT A SIZE ADJUSTMENT IS NOT NECESSARY BECAUSE BETA IS NOT A MEASURE OF UNSYSTEMATIC RISK. IS THIS TRUE?

A. No. The authors, Ibbotson Associates, of Ms. McKiddy's source of information state that a size adjustment is necessary. A company's size is inversely related to returns on common stocks. Size adjustments are necessary because beta (systematic risk) does not capture or reflect a company's small size. That is, a beta of a small company understates the risk and return that a small company will provide. Beta is a reasonable measure of risk for only the largest companies. For smaller companies, betas understate risk and their required returns. For these reasons, it is necessary to use a size adjustment in a CAPM analysis.

Q. ON PAGE 8, MS. MCKIDDY CLAIMS THAT YOU GAVE GREATER WEIGHT TO YOUR CAPM IN DETERMINING MAWC COST OF EQUITY. IS THIS CORRECT?

A. No. I gave equal weight to all three methods that I employed. Ms. McKiddy's statement is not supported by my analysis.

Q. ON PAGE 10, MS. MCKIDDY CLAIMS THAT A 9.5% TO 10.75% COMMON EQUITY RETURN RATE IS APPROPRIATE FOR MAWC. IS STAFF'S RETURN ON COMMON EQUITY REASONABLE FOR THE COMPANY?

A. No. A 9.50% to 10.75% range of return on common equity provides an inadequate spread over the prospective cost of A rated public utility debt capital. Currently, A rated public utility debt is yielding 8.82%. Accordingly, Ms. McKiddy's recommendation provides only a 68-basis point premium to 193-basis point premium over A rated public utility debt capital. My analysis shows that the current premium is at least 450 basis points. Moreover, Value Line's projected returns on common equity for water utilities, for the period 2002 to 2004, is 12.0%. As shown on Schedule HW-6.1, adjusting for bond yield changes results in an average authorized return of 12.48% for 47 water utilities. A comparable opportunity return of 12.5% for similar risk enterprises demonstrates the inequities of Ms. McKiddy's recommendation for MAWC. Capital is provided by investors based upon risk and return opportunities. Investors will not provide common equity capital to the Company when higher risk-adjusted returns are available. Ms. McKiddy's recommended common equity cost rate is unreasonably low.

As shown on Schedule HW-6.2, on average, A rated public utility money cost rates are about 114 basis points higher today than they have been since 1993 (today's yields of 8.82% verses the 1993-99 average yield of 7.68%). In fact, 1994 is the last time money cost rates averaged close to what they are today (the average yield in 1994 was

8.30%). Today's money cost rates are almost 170 basis points higher than the average annual low money cost rate since 1993 (1993-99 average low yield was 7.12% verses today's yield of 8.82%). Given today's 8.8% interest rate level and the upward movement in interest rates over the last couple of years, shows that Ms. McKiddy's recommendation of 9.5% to 10.75% is not reasonable and therefore, must be rejected.

RESPONSE TO MR. BURDETTE'S CRITIQUE

Q. ON PAGE 2 MR. BURDETTE STATES THAT IT IS NOT VALID TO COMPARE VALUE LINE'S PROJECTED ROE OF 12% FOR MAWC. IS HE CORRECT?

A. No. To begin with, even Ms. McKiddy advocates comparing Value Line's projected ROE with her recommendation in this case (rebuttal testimony, page 4). Moreover, Mr. Burdette's direct testimony, page 27, cites the noted Supreme Court case, *Bluefield*[1], that defines the benchmarks of a fair rate of return. In it, a fair rate of return is defined as equal to the return on investments being made in other business undertakings with the same level of risks. Clearly, projected returns for the water industry are reasonable benchmarks.

Q. IS VALUE LINE'S PROJECTED 12% ROE A REASONABLE EXPECTATION

[1]Bluefield Water Works & Improvement Company v. P.S.C. of West Virginia, 262 U.S. 679 (1923).

FOR WATER UTILITIES?

A. Yes. Currently, A rated public utility debt is yielding 8.82% or 40 basis points higher than the yield on A rated public utility debt when my rebuttal testimony was prepared. As shown on Schedule HW-6.1, adjusting for bond yield changes results in an average authorized return of 12.48% for the 47 water utilities. The average of the lowest quartile is even 12.09%. A comparable opportunity return of 12.5% for similar risk enterprises demonstrates the inequities of Mr. Burdette's recommendation of 9.92% for MAWC and supports Value Line's projected return for the water industry.

As shown on Schedule HW-6.1, adjusting for bond yield changes results in an average authorized return of 12.48% for 47 water utilities. A comparable opportunity return of 12.5% for similar risk enterprises demonstrates the inequities of Mr. Burdette's recommendation of 9.92% for MAWC.

Q. ON PAGES 3 THROUGH 5, MR. BURDETTE STATES THAT YOU USED EIGHT COMPANIES THAT ARE NOT COVERED BY VALUE LINE TO DETERMINE YOUR RECOMMENDATION FOR MAWC. IS HE CORRECT?

A. No. The companies that he cites are only shown on Schedule HW-2.4 as part of a group of 14 companies. The sole purpose of the group of 14 water companies is to analyze size and common equity ratios of publicly traded water companies. All of these companies were not used to estimate MAWC's common equity cost rate as suggested by Mr. Burdette.

I used the Value Line Group of Water Companies, to estimate MAWC's common equity cost rate, not the companies listed on pages 3 and 4 of Mr. Burdette's rebuttal testimony. This is clearly evident from reviewing Pages 11 through the end of my direct testimony and Schedules 6 through 11 of Schedule HW-2, where the Value Line Group of Water Companies are listed and discussed. Mr. Burdette's testimony is erroneous and does not reflect the facts presented.

Q. ON PAGES 6 THROUGH 11, MR. BURDETTE STATES MAWC'S RISK IS REDUCED BECAUSE IT IS OWNED BY AWK. DOES MAWC'S ASSOCIATION WITH AWK AFFECT MAWC'S RISK?

A. No. MAWC's ability to access capital is strictly based on its assets, earnings, and cash flow and not the resources of AWK. The property of MAWC is the collateral securing the debt issued by MAWC. Only MAWC earnings can be used to meet the earnings test to issue additional MAWC debt or preferred stock. Further, the cost for MAWC's fixed capital is determined by investors' evaluation of MAWC, not AWK or any other company. Finally, there is no guarantee by AWK regarding the payment of MAWC principal or interest.

Mr. Burdette's testimony violates the basic tenet of corporate finance concerning risk and return. Mr. Burdette recommends setting the MAWC's return based on who owns the stock, not the risk of the investment. On the contrary, the investment risk of an asset does not change, regardless of who owns the asset. This is true regardless of who owns the common stock of MAWC, or whether it is widely dispersed or concentrated in a few or even a single investor. Fairness requires that all investors in the same or similar securities should be treated alike. Investors who invest in a risky asset, expose themselves to investment risk particular to that investment. The greater the risk associated with a risky asset, the higher the required return. This is a basic tenet of corporate finance concerning risk and return. The investment risk of an asset does not change, regardless of who owns the asset. Whether the asset is owned by a tall person or a short person, the required return is the same because the risk of owning that asset is the same. Likewise, whether the owner or investor of a risky asset is rich or poor, the risk of owning the asset is unchanged and therefore the required return is unchanged.

To date, AWK has advanced common equity funds solely at its discretion based, in part, on its expectation that MAWC will receive a full and fair return on its investment, enabling it to support its traditional dividend policy. As the sole shareholder of a number of water utilities, AWK has the discretion to ration its common equity capital infusions to its subsidiaries based upon a risk / return profile. If an operating water subsidiary's risk does not provide sufficient returns, common equity capital will not be provided.

Q. ON PAGE 8 MR. BURDETTE REFERS TO ECONOMIES OF SCALE IN CONNECTION WITH AWK'S OWNERSHIP. DO ECONOMIES OF SCALE TRANSLATE INTO A LOWER COST OF CAPITAL FOR MAWC?

A. No. All economies of scale are passed on to the consumer or customer in form of a lower "above the line" cost of service than otherwise. That is, lower operating expenses are passed along to customers. However, economies of scale are not a part of capital cost rates other than the fact that larger companies have lower capital cost rates than smaller companies, all else being equal. It's the risk of the investment that determines return, not the owner. For example, each AWK subsidiary has its own unique bond rating. However, Mr. Burdette implies that each AWK subsidiary has the same bond rating. Moreover, each AWK subsidiary has its own unique cost rate reflective of its unique risk profile. Mr. Burdette's recommendation is an attempt to penalize MAWC's investors for providing economies of scale to the consumer in form of a lower "above the line" cost of service. Frankly, following Mr. Burdette's recommendation results in the confiscation of capital.

Q. ON PAGE 10, MR. BURDETTE STATES THAT AN INCREASED ROE FOR MAWC IS DUE TO RISK FACTORS RELATING TO ITS SIZE. IS THIS CORRECT?

A. No. MAWC is not only risky because of its small size, it is riskier because of its financial benchmark ratios. Page 3 of Schedule HW-2.11 (attached to my direct testimony) summarizes the application of Standard & Poor's (S&P) five measures of financial risk for MAWC and my comparable group. S&P's measures of financial risk are broader than the traditional measure of financial risk, i.e., leverage. Besides reviewing amounts of leverage employed, S&P also focuses on earnings protection and cash flow adequacy.

As is evident from the information shown on page 3 of Schedule HW-2.11, for the five years ended 1998 and for the year 1998, in most instances, MAWC's ratios were below the comparable group. Prospectively, based upon the Company's capital expenditure program, the Company's ratios are likely to worsen. Based solely upon these ratios, MAWC's debt would likely be rated lower than my comparable group.

On Schedule HW-4.7 (attached to my rebuttal testimony), I calculated S&P's five measures of financial risk for MAWC and Mr. Burdette's comparison companies. Again, in all instances, MAWC was shown to be of greater risk. MAWC is riskier because it is smaller, it has more leverage, it has lower interest coverage, it generates less cash flow, it has a large construction program and because of the proposed disallowances and phase-ins. Accordingly, MAWC's higher risk is evidenced by a number of other factors in addition to its small size.

Q. DO YOU HAVE ANY COMMENTS ON MR. BURDETTE'S CONTENTION ON PAGE 12 THAT IT IS INAPPROPRIATE TO FACTOR IN PROJECTED ROE ESTIMATIONS WHEN DETERMINING A GROWTH RATE?

A. Yes. Mr. Burdette's testimony on page 12, lines 8 through 13, of his rebuttal contradicts his direct testimony, pages 11 through 13, where he describes his "b*r" method of calculating growth. Mr. Burdette states the following concerning his future sustainable growth in his direct testimony,

> . . . is found by multiplying the future expected earned return on book equity (r) by the percentage of earnings expected to be retained in the business (b). This calculation, known as the "b*r" method, or retention growth rate, results in a valid sustainable growth rate which can be used in the Discounted Cash Flow formula. While the retention growth rate can be calculated using historical data . . . projected data on earning retention and return on book equity are generally more representative of investors' expectations.(emphasis added).

However, in his rebuttal, Mr. Burdette takes the opposite position when criticizing my use of projected ROE

> He is calculating a growth rate in order to make ROE estimations "fit." This is backwards. It is growth that drives ROE. It is not that ROE is a given and then a growth rate is a fall out number. The entire point of return on equity calculations is to calculate ROE; is not to start with a favored ROE and then figure out how to make the formulas work out?

Clearly, Mr. Burdette's rebuttal testimony contradicts his direct testimony. The only difference between the two growth rates is Mr. Burdette estimated growth in book value while I estimate EPS growth. Investors are interested in the growth of EPS, not book value.

Q. ON PAGE 14, MR. BURDETTE CLAIMS THAT A 9.92% COMMON EQUITY RETURN RATE IS APPROPRIATE FOR MAWC. IS OPC'S RETURN ON COMMON EQUITY REASONABLE FOR THE COMPANY?

A. No. A 9.92% return on common equity provides an inadequate spread over the prospective cost of A rated public utility debt capital. Currently, A rated public utility debt is yielding 8.82%. Accordingly, Mr. Burdette's recommendation provides only a 110-basis point premium over A rated public utility debt capital. My analysis shows that the current premium is at least 450 basis points. Moreover, Value Line's projected returns on common equity for water utilities, for the period 2002 to 2004, is 12.0%. As shown on Schedule HW-6.1, adjusting for bond yield changes results in an average authorized return of 12.48% for 47 water utilities. A comparable opportunity return of 12.5% for similar risk enterprises demonstrates the inequities of Mr. Burdette's recommendation for MAWC. Capital is provided by investors based upon risk and return opportunities. Investors will not provide common equity capital to the Company when higher risk-adjusted returns are available. Mr. Burdette's recommended common equity cost rate is unreasonably low.

As shown on Schedule HW-6.2, on average, A rated public utility money cost rates are about 114 basis points higher today than they have been since 1993 (today's yields of 8.82% verses the 1993-99 average yield of 7.68%). Given today's 8.8% interest rate level and the upward movement in interest rates over the last couple of years, shows that Mr. Burdette's recommendation of 9.92% is not reasonable and therefore, must be rejected.

RISK AND COST RATES RESULTING FROM RATE BASE DISALLOWANCES

Q. THE REBUTTAL TESTIMONIES OF STAFF AND OPC PROVIDE FURTHER DETAILS REGARDING THEIR PROPOSED PHASE-IN PLANS AND PROPOSED DISALLOWANCES. IF YOU COMBINED THE PROPOSED RATE BASE DISALLOWANCES WITH THE RATE OF RETURN RECOMMENDATION OF EITHER MS. MCKIDDY OR MR. BURDETTE, WILL IT RESULT IN CONFISCATION OF CAPITAL?

A. Yes. The disallowance of plant from rate base subverts MAWC's capital integrity because its common equity will be reduced by the net of tax disallowance. However, investors supply capital not rate base. Each dollar of supplied capital has a required return irrespective of rate base. Disallowance of rate base results in some investor provided capital having no earnings power. When disallowances occur, the lack of earnings power is transferred or absorbed by all classes of investors (i.e., both debt and equity) in the form of lower interest coverage, less cash flow, greater financial risk (i.e., more debt leverage) and impacts the access to capital markets. These conditions result in greater risk for investors, reduction in stock values and bond ratings, thereby producing a much higher cost of capital.

The only remedy to this situation is to increase the allowed return on equity on rate base to a level that produces or yields the same total dollars of return necessary to satisfy each dollar of supplied capital irrespective of rate base. Anything less results in MAWC being unable to attract capital on reasonable terms, voids its credit quality, and provides returns that are far below that of similar risk enterprises.

Q. WHY WILL A RATE BASE DISALLOWANCE INCREASE MAWC'S RISK?

A. Based upon the combined rate base disallowance recommendations of OPC and the rate of return recommendation of Ms. McKiddy, MAWC will no longer be able to pay any dividends as a result of having negative retained earnings. Further, its increased debt leverage resulting from a write-off will preclude it from issuing additional bonds due to its indenture because a pro forma debt issuance would result in more than 65% debt. In short, the only access to capital will be to extremely high cost short-term debt due to its poor credit quality. This scenario of limited access to capital markets and high cost short-term debt has occurred for other companies prior to their filling of bankruptcy.

As shown on page 1 of Schedule HW-6.3, a disallowance will result in lower interest coverage, less cash flow, greater financial risk (i.e., more debt leverage) and thus, impacts the access to capital markets. Schedule HW-6.3 details the results of applying the S&P's various financial benchmarks for MAWC after reflecting the combined rate base disallowances of OPC and the rate of return recommendation of Ms. McKiddy. Clearly, these ratios place MAWC in a junk bond credit quality position of BB when compared to S&P's published benchmark ratios shown on page 1 of Schedule HW-6.3. Large disallowances would result in MAWC having a business position of

"Below Average", thus requiring the most stringent benchmark ratios. It should be noted that the analysis presented on Schedule HW-6.3 only uses Ms. McKiddy's recommendation. Because her recommendation is higher than Mr. Burdette's, employing Mr. Burdette's recommendation would produce even lower benchmark statistics and thus, result in a lower bond rating.

Ms. McKiddy advocates (page 30 of her direct testimony) that MAWC strive for a 2.95x pre-tax interest coverage. Adopting the rate base disallowance recommendations of OPC Witnesses Biddy and Trippensee requires that MAWC's return be set to achieve a ROE of 25.2% in order to produce a 2.95x interest coverage. Similarly, MAWC would have to achieve a 14.9% ROE in order to result in a 2.95x interest coverage if only Staff's rate base recommendations were granted. The aforementioned levels of equity return rates are reasonable when compared to the additional risk that results from large disallowances of rate base. It should be noted that the 14.9%and 25.2% returns on equity are achieved returns not authorized returns. The distinction lies in the impact on authorized earnings that result from phase-in plans. That is, during a phase-in plan, ROE's must be authorized at a higher level in order to result in the lower achievable earnings because earnings are reduced by the amount of the revenue deferral, net of taxes.

MAWC cannot attract the required capital if it maintains financial ratios that result from the rate base disallowance recommendations and the low returns recommended by either Ms. McKiddy or Mr. Burdette. In the future, it will be necessary for MAWC to achieve higher returns on equity, decrease leverage, and increase cash flow just to have access to the capital markets.

Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A. Yes.

RATE OF RETURN

SCHEDULES

TO ACCOMPANY THE

SURREBUTTAL TESTIMONY

OF HAROLD WALKER, III

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

MAY 25, 2000

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, INC.

HARRISBURG, PENNSYLVANIA

Indicated Cost of Capital
Based on Authorized ROE and Current A Rated Bond Yields

	Date Authorized	Authorized ROE	A Rated Public Utility Bond Yield	Spread	Current A Rated Public Utility Bond Yield of 8.82	Adjusted ROE For Current Capital Cost Rates
Artesian water	5/12/98	10.9	7.16	3.74	8.82	12.56
Avon water	3/11/98	12.3	7.16	5.14	8.82	13.96
Barnstable	5/29/98	12.5	7.16	5.34	8.82	14.16
Bluefield Valley	2/21/97	11.0	7.64	3.36	8.82	12.18
Bridgeport Hydraulic	8/1/97	11.6	7.51	4.09	8.82	12.91
California American	1/1/99	10.5	6.97	3.53	8.82	12.35
California Water Serv	7/1/98	10.4	7.03	3.37	8.82	12.19
Consumers Illinois	6/6/98	10.1	7.03	3.07	8.82	11.89
Consumers Maine	7/1/97	10.8	7.48	3.32	8.82	12.14
Consumers New Jersey	4/1/98	10.8	7.16	3.64	8.82	12.46
Consumers PA-Roaring Creek	10/1/97	11.0	7.35	3.65	8.82	12.47
Consumers PA-Shenango	12/24/97	11.0	7.16	3.84	8.82	12.66
Consumers PA-Susquehanna	7/24/98	10.5	7.03	3.47	8.82	12.29
Florida Water Services	7/20/98	10.5	7.03	3.47	8.82	12.29
Illinois American	12/22/97	10.6	7.16	3.44	8.82	12.26
Indiana American	7/1/99	10.7	7.71	2.99	8.82	11.81
Indianapolis Water	4/1/98	11.5	7.16	4.34	8.82	13.16
Iowa American	8/31/98	10.8	7.00	3.80	8.82	12.62
Kentucky American	9/30/97	11.0	7.47	3.53	8.82	12.35
Maryland American	5/28/99	10.5	7.47	3.03	8.82	11.85
Michigan American	1/1/98	10.0	7.04	2.96	8.82	11.78
Middlesex Water	1/29/98	11.0	7.04	3.96	8.82	12.78
Missouri American	11/4/97	11.0	7.25	3.75	8.82	12.57
New Jersey American	4/1/99	10.8	7.22	3.58	8.82	12.40
New Mexico American	1/1/99	10.1	6.97	3.13	8.82	11.95
New York American	8/1/98	10.8	7.00	3.80	8.82	12.62
Northern Illinois	3/14/98	10.4	7.16	3.24	8.82	12.06
Northwest Illinois	3/14/98	10.4	7.16	3.24	8.82	12.06
Northwest Indiana	5/27/98	10.3	7.16	3.14	8.82	11.96
Ohio American	10/1/98	11.5	6.96	4.54	8.82	13.36
Paradise Valley	7/14/99	11.0	7.71	3.29	8.82	12.11
Pennichuck	4/1/98	10.4	7.16	3.24	8.82	12.06
Pennsylvania American	10/1/97	10.7	7.35	3.35	8.82	12.17
Southern California	1/1/99	10.0	6.97	3.03	8.82	11.85
St. Louis County	1/1/98	11.1	7.04	4.06	8.82	12.88
Suburban Water System	1/1/98	10.0	7.04	2.96	8.82	11.78
Torrington Water	3/1/97	12.2	7.87	4.33	8.82	13.15
United Arkansas	10/1/97	10.8	7.35	3.45	8.82	12.27
United Delaware	5/11/98	11.7	7.16	4.54	8.82	13.36
United Florida	5/19/97	11.6	7.89	3.71	8.82	12.53
United Idaho	7/6/98	10.8	7.03	3.77	8.82	12.59
United Pennsylvania	2/3/98	11.0	7.12	3.88	8.82	12.70
United South Gate	11/1/97	11.3	7.25	4.05	8.82	12.87
United Toms River	1/1/98	11.3	7.04	4.26	8.82	13.08
United W Lafayette	7/8/98	10.5	7.03	3.47	8.82	12.29
Virginia American	12/22/98	10.8	6.91	3.89	8.82	12.71
West Virginia American	12/21/98	10.0	6.91	3.09	8.82	11.91
Average		10.9	7.20	3.66	8.82	12.48
Median		10.8	7.16	3.53	8.82	12.35
Lower Quartile		10.5	7.03	3.27	8.82	12.09
Upper Quartile		11.0	7.30	3.89	8.82	12.71

Source of Information: NAWC 1998 Financial & Operating Data for Investor-Owned Water Utilities
Company Provided Information

Schedule HW-6.1

Interest Rate Trends for A Rated Public Utility Bonds
Monthly for the Years 1993 To 2000

	1993	1994	1995	1996	1997	1998	1999	2000	
Jan	8.27	7.33	8.73	7.22	7.77	7.04	6.97	8.35	
Feb	8.04	7.42	8.52	7.37	7.64	7.12	7.09	8.25	
Mar	7.90	7.85	8.37	7.73	7.87	7.16	7.26	8.28	
Apr	7.81	8.22	8.27	7.89	8.03	7.16	7.22	8.29	
May	7.86	8.33	7.91	7.98	7.89	7.16	7.47	***8.82***	*Estimated*
Jun	7.75	8.31	7.60	8.06	7.72	7.03	7.74		
Jul	7.54	8.47	7.70	8.02	7.48	7.03	7.71		
Aug	7.25	8.41	7.83	7.84	7.51	7.00	7.91		
Sep	7.04	8.64	7.62	8.01	7.47	6.93	7.93		
Oct	7.03	8.86	7.46	7.77	7.35	6.96	8.06		
Nov	7.30	8.98	7.43	7.49	7.25	7.03	7.94		
Dec	7.34	8.76	7.23	7.59	7.16	6.91	8.14		
Annual Ranges:									
Lowest	7.03	7.33	7.23	7.22	7.16	6.91	6.97	8.25	
Highest	8.27	8.98	8.73	8.06	8.03	7.16	8.14	8.82	
Median	7.65	8.37	7.77	7.81	7.58	7.03	7.73	8.29	
Mean	7.59	8.30	7.89	7.75	7.60	7.04	7.62	8.40	
Mid-point	7.63	8.24	7.90	7.71	7.59	7.04	7.61	8.44	

Missouri-American Water Company
Funds Flow Ratio Test of the Recommendations
of Witness McKiddy, Rate Base Disallowances of
OPC and Staff

	Witness McKiddy & Rate Base Disallowances of OPC			Witness McKiddy & Rate Base Disallowances of Staff			Standard & Poor's Financial Benchmark Criteria For a "BB" Bond Rating			Standard & Poor's Financial Benchmark Criteria For a "BBB" Bond Rating		
	For the Period 2000-02 (1)			For the Period 2000-02 (1)			Business Position			Business Position		
	Lower Quartile	Median	Upper Quartile	Lower Quartile	Median	Upper Quartile	Above Average	Average	Below Average	Above Average	Average	Below Average
PreTax Interest Coverage (x)	-0.7	1.4	1.5	1.6	1.8	2.0	0.8	1.0	1.5	1.3	2.0	2.8
Total Debt / Total Capital (%)	68.0	69.3	69.9	60.0	60.1	60.2	70.0	65.0	60.0	64.0	59.0	54.0
GCF / Interest Coverage (x)	0.3	1.7	1.9	1.9	2.1	2.3	1.0	1.3	1.8	1.5	2.3	3.0
GCF / Average Total Debt (%)	-6.9	5.6	7.1	6.4	8.0	9.3	7.0	9.0	12.0	10.0	15.0	20.0
NCF / Construction (%)	-13.8	51.3	53.9	25.0	36.8	45.1	20.0	30.0	40.0	35.0	50.0	65.0

Note: (1) Developed on page 2 of this Schedule.

Missouri-American Water Company
Funds Flow Ratio Test of the Recommendations
of Witness McKiddy, Rate Base Disallowances of
OPC and Staff

Line No		Witness McKiddy & Rate Base Disallowances of OPC			Witness McKiddy & Rate Base Disallowances of Staff		
		2000	2001	2002	2000	2001	2002
		(Millions of Dollars)			(Millions of Dollars)		
1 .	Net Operating Operating Income	(15.446)	8.745	10.773	7.309	9.579	12.357
2 .	Less: Long-Term Debt Expenses	7.734	6.154	6.156	5.727	6.154	6.155
3 .	Short-Term Debt Expenses (1)	2.078	1.897	1.425	1.220	1.244	1.315
4 .	Total Interest Expenses	9.812	8.051	7.581	6.947	7.398	7.470
5 .							
6 .	Net Income (ln 1 - ln 4)	(25.258)	0.694	3.192	0.362	2.181	4.887
7 .	Expenses Not Requiring Cash Outlays:						
8 .	Depreciation	3.240	4.062	4.253	3.789	5.098	5.289
9 .	Amortization	0.066	0.216	0.216	0.066	0.216	0.216
10 .	Deferred Income Taxes	0.975	0.975	0.975	0.975	0.975	0.975
11 .	Investment Tax Credits	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)
12 .							
13 .	Gross Cash Flow	(21.012)	5.912	8.601	5.157	8.435	11.332
14 .							
15 .	Less:						
16 .	Preferred Stock Dividends	0.183	0.000	0.000	0.243	0.243	0.243
17 .	Common Dividends	2.419	0.000	0.000	0.948	2.598	4.922
18 .							
19 .	Net Cash Flow	(23.614)	5.912	8.601	3.966	5.594	6.167
20 .							
21 .	Interest Charges (ln 4)	9.812	8.051	7.581	6.947	7.398	7.470
22 .							
23 .	Gross Construction	29.917	10.467	16.755	29.917	10.467	16.755
24 .							
25 .	Income Taxes	(11.868)	2.290	2.067	2.114	3.995	4.137
26 .							
27 .	Before Income Tax Interest Coverage						
28 .	((ln 25 + ln 1) / ln 21)	-2.78	1.37	1.69	1.36	1.83	2.21
29 .							
30 .	Debt / Total Capital	70.4%	69.3%	66.7%	60.3%	60.1%	59.8%
31 .							
32 .	Funds From Operations Interest Coverage						
33 .	((ln 13 + ln 21) / ln 21)	-1.14	1.73	2.13	1.74	2.14	2.52
34 .							
35 .	Funds From Operations / Total Debt	-19.4%	5.6%	8.6%	4.9%	8.0%	10.6%
36 .							
37 .	Net Cash Flow / Capital Expenditures						
38 .	(ln 19 / ln 23)	-78.9%	56.5%	51.3%	13.3%	53.5%	36.8%

Note: (1) Assumed to be prime plus 4 points times average short-term debt balance.
Source of Information: Company provided data.