

TENNESSEE-AMERICAN WATER COMPANY
CASE NO. _____
DIRECT TESTIMONY
MICHAEL A. MILLER

1. Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Michael A. Miller, 1600 Pennsylvania Avenue, Charleston,
West Virginia.

2. Q. WHAT POSITION DO YOU HOLD WITH TENNESSEE AMERICAN
WATER?

A. I am the Treasurer/Comptroller of the Company. In this position I am
responsible for the financial statements, accounting, finance, budgets and
regulatory filings for the Company.

3. Q. PLEASE DESCRIBE YOUR PROFESSIONAL EDUCATION AND
EXPERIENCE.

A. Please see my resume attached to this testimony as Appendix A.

4. Q. WHAT OTHER POSITIONS DO YOU HOLD WITH AMERICAN
WATER?

A. I am the Manager of Rates for the Southeast Region of American Water
Works Service Company, Inc. In that position, I am responsible for
overseeing the rates and revenue functions for the operating companies
located in West Virginia, Kentucky, Pennsylvania, Maryland, Virginia, as
well as, Tennessee American.

1
2 5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

3 A. I will address (i) the factors driving the need to seek increased rates, (ii) the
4 Capital Structure and overall cost of capital that includes the return on
5 equity which will be addressed by Dr. Vilbert, (iii) cost of service
6 allocations, (iv) management fees, and (v) employee benefit costs.

7
8 **RATE CASE DRIVERS**
9

10 6. Q. WHAT IS THE OVERALL INCREASE IN RATES REQUESTED IN
11 THIS CASE?

12 A. The overall increase requested is \$6.379, million or 19.67% to tariff
13 customers.
14

15 7. Q. WHAT HAS BEEN THE RECENT HISTORY OF RATE INCREASES
16 FOR THE COMPANY?

17 A. I have a schedule attached to this testimony identified as Exhibit MAM-1
18 that shows the average residential water bill for the Company since 1995 (at
19 the current average residential usage per customer). The schedule indicates
20 that since 1995 (including the proposed rate increase in this case), the
21 residential water bill will have increased on average 3.40% per year. This
22 compares to an average increase for the Consumer Price Index of 2.53% per
23 year. The Company has been able to hold rates to reasonable increases,
24 while investing \$78.8 million (a 32% increase in rate base) in capital

1 improvements to maintain and improve its exceptional service during that
2 timeframe.

3
4 8. Q. OTHER THAN THE COST OF CAPITAL DESCRIBED BELOW WHAT
5 IS THE COST OF SERVICE COMPONENTS THAT ARE THE
6 PRIMARY DRIVERS OF THE REQUESTED RATE INCREASE IN
7 THIS CASE?

8 A. The summary of the increased costs supporting the requested increase in
9 rates is provided as Exhibit MAM-2 attached to this testimony. The
10 Company's rate base has increased by \$12.977 million above the level
11 approved in the Company's 2004 rate case, and is the primary driver of the
12 need to increase rates. The increase in rate base and the associated
13 increases in depreciation and property taxes account for approximately 49%
14 of the requested increase in rates. John Watson, Vice President and
15 Manager of Tennessee-American will discuss in his direct testimony the
16 Company's significant capital investment since the prior rate case.
17 Operation and Maintenance expenses have increased by \$2.403 million
18 from the level recognized in the 2004 rate case. This increase accounts for
19 approximately 37% of the increased rates requested in this case. The
20 primary increases for O&M expenses relate to labor (both company labor
21 and service company labor) and benefits; water production costs for fuel,
22 power and chemicals; and maintenance costs. The increased price of
23 gasoline has impacted delivery costs for materials, as well as, the
24 transportation cost to provide service to the customers. Both Mr. Watson

1 and Ms. Miller will discuss various O&M costs in their direct testimony, as
2 will I later in this testimony.

3
4
5 **CAPITAL STRUCTURE AND OVERALL COST OF CAPITAL**

6
7 9. Q. WHAT CAPITAL STRUCTURE DID THE COMPANY USE IN
8 CALCULATING THE RATES IN THIS CASE?

9 A. The Company used a forecasted capital structure for the midpoint of the
10 attrition year, August 31, 2007. The capital structure includes the
11 permanent financing that will be consummated in early 2007 and the level
12 of short-term debt that will be in place after the permanent debt financing is
13 completed. The proposed capital structure is included in the filing and is
14 attached to this testimony as Exhibit MAM-3.

15
16 10. Q. WHY IS THIS LEVEL OF SHORT-TERM DEBT APPROPRIATE FOR
17 SETTING RATES IN THIS CASE?

18 A. The Company uses short-term debt to finance capital improvements and
19 meet other short-term cash requirements. This type of financing is used to
20 bridge the gap between permanent financings. This permits the Company
21 to time permanent financings in a cost-effective manner and to take
22 advantage of the optimum permanent debt market conditions as they occur.
23 The Company believes the capital structure included in this case reflects the
24 capital components that will be in place to finance the rate base on which

1 rates will be set in this case.

2
3 11. Q. HOW WAS THE WEIGHTED COSTS OF LONG-TERM DEBT AND
4 PREFERRED STOCK DETERMINED?

5 A. The face value of each LT debt and preferred stock issue was reduced by
6 the unamortized issuance cost and the result was divided by the total capital
7 cost to arrive at the overall cost rate for both long-term debt and preferred
8 stock. These calculations are shown on pages 2 and 3 of Exhibit MAM-3
9

10 12. Q. HOW WAS THE COST RATE FOR SHORT-TERM DEBT
11 DETERMINED?

12 A. The Company reviewed market forecasts for 2007 to determine a cost rate
13 for short-term debt that will likely be in place during the rate year.
14

15 13. Q. IN WHAT MANNER IS THE COMPANY CURRENTLY OBTAINING
16 ITS LONG-TERM AND SHORT-TERM DEBT?

17 A. The Company is currently utilizing the services of American Water Capital
18 Corp. (AWCC) to place its required financing needs. AWCC is an
19 American Water Works Company affiliate and was created to consolidate
20 the financing activities of the operating subsidiaries to effect economies of
21 scale on debt issuance and legal costs, and to attract lower debt interest
22 rates through larger debt issues in the public market. The Company
23 believes the use of AWCC has accomplished the goal of reducing issuance
24 costs and attracting capital at lower interest rates though the purchasing

1 power of the entire American System.

2
3 14. Q. HAS THE COMMISSION APPROVED PLACING THE COMPANY'S
4 FINANCING NEEDS WITH AWCC?

5 A. Yes. By Order entered October 10, 2000 in Case No. 00-00637, the
6 Commission authorized the Company to enter into a Financial Services
7 Agreement with AWCC to issue up to \$30,100,000 of debt obligations.
8 The Company will file in the next few weeks the documents necessary to
9 continue this relationship.

10
11 15. Q. WHAT FACTORS REQUIRE THE COMPANY TO SEEK
12 ADDITIONAL CAPITAL?

13 A. The Company has documented in past rate cases and in this filing that
14 capital improvements it has made in order to meet the new and changing
15 regulations in the water industry, replace aged treatment and distribution
16 facilities, and provide quality, reliable water service to its customers have
17 driven and will continue to drive the need for new capital. In addition, the
18 Company will be required to replace several maturing debt series in the
19 next five years. It is important that the Company maintain a strong
20 financial position to attract this capital at the lowest possible price in order
21 to provide those service improvements at the least possible cost to its
22 customers.

1 16. Q. WILL THE COMPANY ISSUE NEW LT DEBT IN EARLY 2007?

2 A. Yes. The Company plans to issue \$36.5 million of LT Debt in early 2007
3 to replace its short term debt outstanding and refinance its 4.75% note
4 issued to AWCC which will be called as part of the Divestiture of
5 American Water by RWE as described in the Petition in Case No. 06-
6 00119. This LT debt issue has been incorporated into the capital structure
7 proposed in this case.
8

9 17. Q. WHAT INTEREST RATE IS THE COMPANY PROPOSING FOR THE
10 NEW LONG-TERM DEBT?

11 A. The Company included the \$36.5 million series note in its capital structure
12 at an interest rate of 6.15%. Given the current favorable bond market
13 conditions and forecasts the Company will likely issue that note for a 10-
14 year term. Because this note will be issued prior to the resolution of this
15 case, the Company should be able to amend its filing to incorporate the
16 actual interest rate, issuance cost and term for this note prior to resolution
17 of this case.
18

19 18. Q. HOW DID THE COMPANY ARRIVE AT THAT INTEREST RATE?

20 A. As shown on Exhibit MAM-4 attached to this testimony, the Company
21 calculated the latest two and four-quarter spread between 10-year A-rated
22 bonds and 10-year T-bonds. The two and four quarter spreads (95.1 and
23 94.0 basis points, respectfully) were applied to the 2007 Value Line
24 Publication Forecast (publication of August 25, 2006) for 10-year T-bonds

1 to arrive at a reasonable projection for the interest rates on this note. The
2 Company used 6.15% based on this analysis as a reasonable estimate of the
3 interest rate.
4

5 19. Q. WHAT IS THE OVERALL COST OF CAPITAL REQUESTED IN THIS
6 CASE?

7 A. The overall weighted cost of capital being requested is 8.46%. The
8 weighted cost of Long-term debt is 6.77% an increase of 12 basis points
9 from the weighted cost of Long-term Debt approved in the Company's
10 2004 rate case. This 12 basis point increase results from increases
11 experienced in the debt markets over the last two years and that impact on
12 the new and refinanced LT Debt to be issued by the Company in early
13 2007. For the quarter ended March 2005, the timeframe of the last rate
14 increase for the Company, the interest rate for 10-year, A-rated bonds
15 averaged 5.081%. Those average interest rates compare to the average
16 interest rates for the latest quarter ended September 2006 of 5,833% as
17 indicated on page 1 of Exhibit MAM-4. In addition, short-term interest
18 rates have increased over 400 basis points in the same two year period.
19

20 20. Q. HAVE YOU REVIEWED THE TESTIMONY OF COMPANY WITNESS
21 VILBERT IN THIS CASE REGARDING THE COST OF EQUITY?

22 A. Yes. The Company has elected to base its filing on an ROE of 11.0%,
23 which is within the range of ROE determined by Dr. Vilbert. The
24 Company has incorporated the 11.0% ROE into the capital structure and

1 weighted cost of capital utilized by the Company in its filing. The
2 Company has reviewed the current bond rate projections and the authorized
3 ROE's in recent orders across the country and determined that the 11.0%
4 ROE is fair, reasonable, and representative of the current investor
5 expectations regarding ROE.

6
7 **COST OF SERVICE (TARIFF) ALLOCATIONS**

8
9 21. Q. HAS THE COMPANY PREPARED A COST OF SERVICE STUDY AS
10 PART OF THIS CASE?

11 A. Yes. The Company has asked Paul Herbert, from the firm Gannett/Fleming
12 to review the cost of service and tariffs of the Company. Mr. Herbert has
13 filed testimony in this case supporting the Company's proposed tariff and
14 cost of service allocations.

15
16 22. Q. HOW IS THE COMPANY PROPOSING TO ALLOCATE THE
17 INCREASED RATES IN THIS CASE?

18 A. The Company is proposing to increase rates to all classes of customers
19 (except public fire protection) in an across the board percentage increase of
20 19.67% to the metered tariffs.

21
22 23. Q. WHAT IS THE COMPANY'S PROPOSAL REGARDING PUBLIC FIRE
23 PROTECTION IN THIS CASE?

24 A. The Company did not include in the tariffs in this filing a public fire service

1 fee and allocated that portion of the cost of service to the remaining
2 customer classifications. The public fire protection was a major issue in the
3 Company's 2003 rate case. The Company was able to reach agreement
4 with the parties to that case on an overall revenue requirement and all other
5 issues except for the handling of public fire protection charges. This issue
6 went before the TRA which eventually set the public fire protection fees at
7 the approximate mid-point of the tariffs at the time of the hearing and the
8 full cost of service determination, allocating the remaining cost of public
9 fire protection to the other customer classifications. In the 2004 rate case
10 the Company proposed to eliminate the public fire protection fees, and
11 allocate those fees proportionately to the remaining customer
12 classifications.

13
14 24. Q. WHY DID THE COMPANY PROPOSE TO ELIMINATE THE PUBLIC
15 FIRE PROTECTION FEES CHARGED TO THE VARIOUS
16 MUNICIPALITIES?

17 A. On May 18, 2004 the Tennessee Legislature enacted an amendment to
18 Tennessee Code Annotated, Section 65-5-201 relative to Public Utilities
19 that prohibits the Company from collecting the cost of public fire protection
20 from the municipalities in its service area.

21
22 25. Q. DID THE TRA APPROVE THE ELIMINATION OF THE PUBLIC FIRE
23 SERVICE FEES IN CASE NO. 04-00288?

24 A. Yes. The TRA approved the tariffs of the Company in that case which

1 eliminated public fire protection fees.

2
3 26. Q. IS THE COMPANY'S FILING IN THIS CASE IN COMPLIANCE WITH
4 THE LEGISLATION?

5 A. Yes. The Company does not believe the public fire service fees should be
6 an issue in this case.

7
8 **MANAGEMENT FEES**

9
10 27. Q. PLEASE DESCRIBE THE COMPANY'S FILING REGARDING
11 MANAGEMENT FEES.

12 A. The Company's filing includes management fees of \$4.064 million. The
13 Company started with the historical test-year expenses of \$4.006 million
14 and eliminated non-reoccurring expenses for the STEP project, the STAR
15 project, the Business Change project, the Divestiture, and implementation
16 costs related to Sarbanes Oxley compliance. American Water has
17 undertaken these initiatives to improve service and growth opportunities for
18 its operating companies, however, they are expenses that will not be
19 reoccurring during the attrition year for this case. To that adjusted
20 historical test-year base period (twelve months ended June, 2006), the
21 Company used an inflation factor of 5% per year to reflect the expected
22 management fee cost for the attrition year in this case, the twelve months
23 ended February 2008.

1 28. Q. PLEASE DESCRIBE WHAT COMPRISES MANAGEMENT FEES?

2 A. Management fees are the charges from American Water Works Service
3 Company for services provided under the 1989 Service Company contract.
4 Those services consist of services related to accounting, administration,
5 communication, corporate secretarial, engineering, finance, human
6 resources, information systems. operations, rates and revenue, risk
7 management, water quality and other services as agreed to by the
8 Company. These services are billed at cost to Tennessee American.
9

10 29. Q. WHAT IS THE BENEFIT TO THE RATE PAYERS OF THE COMPANY
11 FROM UTILIZING THE SERVICE COMPANY?

12 A. The Service Company permits American Water Works to utilize its size to
13 generate economies of scale. Highly qualified employees in specialized
14 fields are available to each operating company which is more cost effective
15 than maintaining the same level of expertise at each operating company.
16 The Service Company format permits that expertise to be shared by each
17 operating company through the cost allocations and direct charges as
18 outlined in the Service Company contract. In addition, the Service
19 Company is able to take advantage of the size of American Water to utilize
20 its purchasing power for materials, capital, and other services on a national
21 basis bringing lower costs to each operating company, including Tennessee
22 American.
23

1
2 30. Q. IS THERE FURTHER SUPPORT FOR THE BENEFIT OF THE
3 SERVICE COMPANY?

4 A. Yes. As outlined in the testimony in this case of Mr. Baryenbrunch,
5 Tennessee American obtains the benefit of the Service Company charges
6 (management fees) at a price lower than it could obtain those services from
7 parties outside the American Water Works system
8

9 **EMPLOYEE BENEFIT COSTS.**
10

11 31. Q. WHAT LEVEL OF PENSION COST IS THE COMPANY REQUESTING
12 IN THIS CASE?

13 A. The Company is requesting pension cost of \$595,798 for the ERISA
14 contribution related to the defined benefit portion of the American Water
15 Pension Plan expected during the attrition year.
16

17 32. Q. HOW WAS THAT COST DETERMINED?

18 A. American Water employs the actuarial firm of Towers Perrin to evaluate its
19 Pension Plan. Towers Perrin provided the expected ERISA contributions
20 for American Water for 2007 and 2008. The Company determined the
21 attrition year level expense by allocating a portion of the 2007 and 2008
22 cost to match the attrition year in this case.
23
24

1 33. Q. YOU MENTIONED EARLIER THAT THE COSTS IDENTIFIED IN
2 THE RESPONSE TO QUESTION 30 ABOVE APPLIED TO THE
3 AMERICAN WATER DEFINED BENEFIT PLAN. DOES AMERICAN
4 WATER HAVE PENSION COSTS OTHER THAN THOSE IN THE
5 DEFINED BENEFIT PLAN?

6 A. Yes. As part of its national employee benefit negotiations, American Water
7 moved to a defined contribution plan for pension costs for union employees
8 hired after January 1, 2001 and non-union employees hired after January 1,
9 2006.

10
11 34. Q. WHAT LEVEL OF EXPENSE IS INCLUDED IN THE COMPANY'S
12 REQUEST RELATED TO THE DEFINED CONTRIBUTION PLAN FOR
13 PENSIONS?

14 A. The Company included \$91,829 of defined contribution costs as shown in
15 the workpapers for account 604.8. This amount was determined by
16 applying the contribution rate to the attrition year wages of the Company's
17 employees covered by this portion of the plan.

18
19 35. Q. WHAT LEVEL OF POST RETIREMENT BENEFIT COSTS (OPEB'S)
20 DID THE COMPANY INCLUDE IN ITS FILING?

21 A. The Company is requesting OPEB cost of \$507,647.

22
23 36. Q. HOW WAS THAT COST DETERMINED?

24 A. American Water employs the actuarial firm of Towers Perrin to evaluate its

1 OPEB Plan. Towers Perrin provided the expected OPEB expense for
2 American Water for 2007 and 2008. The summary of those projections are
3 included in the workpapers under the payroll tab made a part of the
4 Company's filing in this case. The Company determined the attrition year
5 level expense by allocating a portion of the 2007 and 2008 cost to match
6 the attrition year in this case.

7
8 37. Q. DID AMERICAN WATER ALSO CHANGE ITS OPEB PLAN FOR
9 EMPLOYEES HIRED AFTER JANUARY 1, 2006?

10 A. Yes. The employees hired after January 1, 2006 no longer are provided
11 OPEB's. Instead, American Water provides a defined contribution plan for
12 retiree's health costs.

13
14 38. Q. WHAT LEVEL OF EXPENSE IS INCLUDED IN THE COMPANY'S
15 REQUEST RELATED TO THE DEFINED CONTRIBUTION PLAN FOR
16 OPEB/S?

17 A. The Company included \$7,000 of defined contribution costs as shown in
18 the workpapers for account 604.8. This amount was determined by
19 applying the contribution rate to the Company's employees covered by this
20 plan.

21
22 39. Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

23 A. Yes.

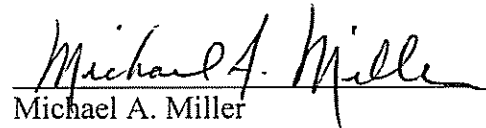
TENNESSEE REGULATORY AUTHORITY

STATE OF WEST VIRGINIA

COUNTY OF KANAWHA

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Michael A. Miller, being by me first duly sworn deposed and said that:

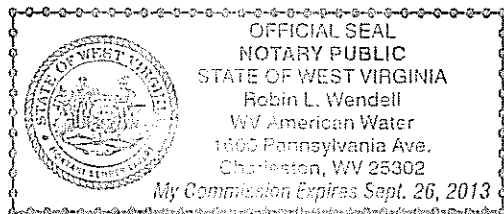
He is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Regulatory Authority, and if present before the Authority and duly sworn, his testimony would set forth in the annexed transcript consisting of 15 pages.


Michael A. Miller

Sworn to and subscribed before me
this 17th day of November 2006.


Notary Public

My commission expires Sept. 26, 2013



Appendix A

Resume of Michael A. Miller

I received my B.S. degree in Accounting from West Virginia Tech in May of 1976, and my West Virginia Certified Public Accounting Certificate on February 2, 1987.

I joined the American Water Works Service Company - Southern Division ("Service Company") in July of 1976, and have held various positions in the American Water System ("AWS") for over 29 years. I served as a Junior Accountant in the rate department until August 1977, at which time I was transferred to the Huntington Water Corporation as Accounting Superintendent. I held this position until July 1978, when I was transferred to the Southern Division Service Company as the Director - Budget Procedures, which position I held until April 1981. At that time, I became Customer Service Superintendent at West Virginia-American Water Company. In December 1981, I became Assistant Director of Accounting for the Southern Region Service Company. I held this position until August 1991, when I became the Business Manager at West-Virginia American Water Company. On January 1, 1994, I was promoted to Vice President and Treasurer at West-Virginia American Water Company. On April 1, 2000, I became an employee of the Service Company as Vice-President and Treasurer for the Southeast Region Companies located in West Virginia, Kentucky, Tennessee, Virginia, and Maryland. In January 2002 I was also named the Comptroller for each of the five Southeast Region Companies. In January 2004 my title was changed to Manager of Rates and Regulation for the Southeast Region of American Water Works Service Company and on May 16, 2006 I was given responsibility for the rates function for Pennsylvania American.

Exhibit MAM-1

Tennessee-American Water Company
Average Usage and Revenue Per Residential Customer

<u>Year</u>	<u>Average Revenue per Customer</u>	<u>% Change</u>
1995	156.22	
1996	164.23	5.10%
1997	164.23	0.00%
1998	164.23	0.00%
1999	164.23	0.00%
2000	164.23	0.00%
2001	164.23	0.00%
2002	164.23	0.00%
2003	177.53	8.10%
2004	177.53	0.00%
2005	184.30	3.80%
Rate Case	220.60	19.67%
	Average	3.40%

**Tennessee-American Water Company
Increase Cost of Service Elements**

Exhibit MAM-2

Rate Base and Related Items (in million dollars):

Increase in rate base of \$12.977 million	\$ 2.334	
Depreciation expense on add'l rate base	\$ 0.307	
Add'l Property Taxes	\$ 0.456	
Total increase attributable to rate base and related items	\$ 3.097	49% of total increase

O & M Expense	\$ 2.403	37% of total increase
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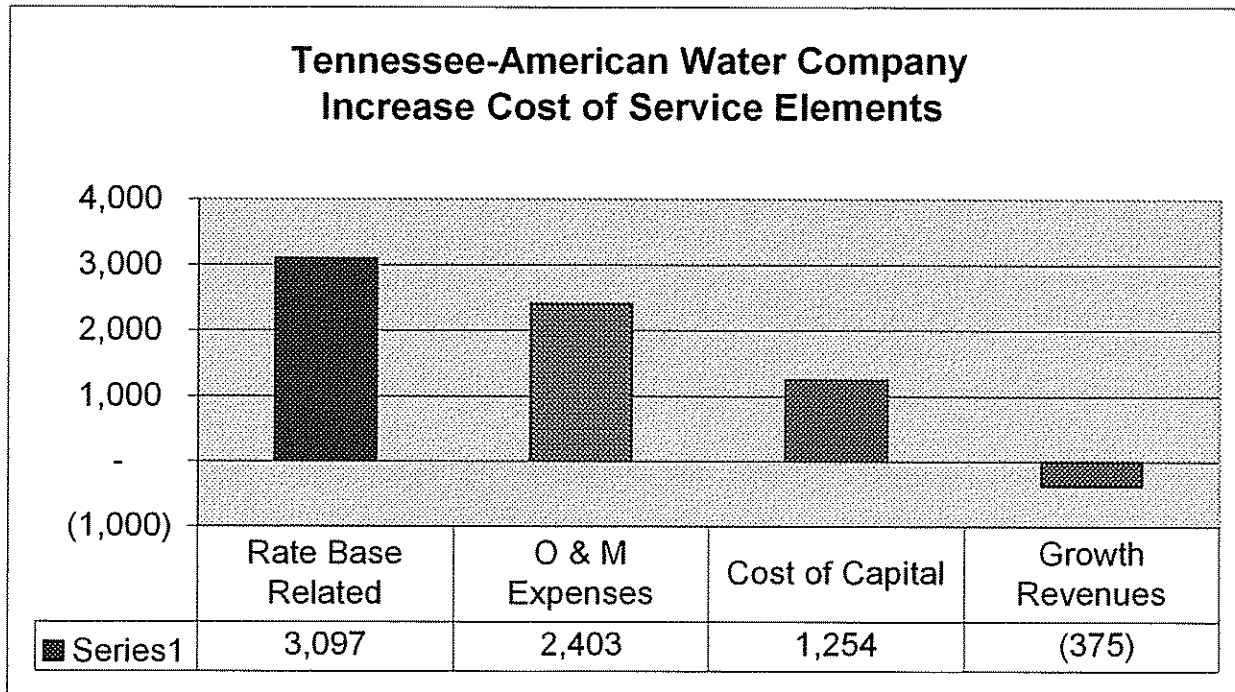
Increase in cost of capital	\$ 1.254	20% of total increase
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Items Offsetting Increased Cost of Service:

Increased going level revenue	\$ (0.375)	(6%) of total increase
	<u>(0.375)</u>	

TOTAL INCREASE

6.379



**Rate of Return Summary
At the Mid-Point of the Attrition Year**

**Tennessee Regulatory Authority
Company: Tennessee-American Water Company
Case No:**

**Exhibit MAM-3
Page 1 of 3
Test Year: Twelve Months Ended: June 30, 2006**

<u>Line No.</u>	<u>Class of Capital</u>	<u>Reference</u>	<u>Amount</u>	<u>Percent of Total</u>	<u>Cost Rate</u>	<u>Weighted Cost of Capital</u>
1						
2						
3	Long-term Debt	Schedule 2	\$55,759,080	53.07%	6.77%	3.593%
4						
5	Short-term Debt		3,948,000	3.76%	5.40%	0.203%
6						
7	Preferred Equity	Schedule 3	1,382,100	1.32%	5.00%	0.066%
8						
9	Common Equity					
10	Common Stock		25,043,003	23.84%	11.00%	2.622%
11	Retained Earnings		18,925,643	18.02%	11.00%	1.982%
12						
13	Total Capitalization		<u>105,057,826</u>	<u>100.00%</u>		<u>8.466%</u>
14						
15						
16						
17						
18	Total Common Equity Return Proposed		<u>11.00%</u>			
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

**Embedded Cost of Long-Term Debt
At the Mid-Point of the Attrition Year**

Tennessee Regulatory Authority
Company: Tennessee-American Water Company
Case No:

Exhibit MAM-3
Page 2 of 3
Test Year: Twelve Months Ended: June 30, 2006

Line No.	Debt Issue Type, Coupon Rate	Interest Rate	Issue Date	Maturity Date	Principal Amount	Face Amount Outstanding	Unamortized (Issuance) Debt Exp.	Carrying Value	Annual Interest Expense	Annual Amortization of Issue Expense	Total Cost
1											
2											
3											
4											
5	General Mortgage Bonds										
6											
7	9.25% Series	9.25%	01/12/90	12/01/19	2,500,000	2,500,000	18,685	2,481,315	231,250	1,525	232,775
8	7.84% Series	7.84%	09/04/96	09/01/26	5,700,000	5,700,000	43,269	5,656,731	446,880	2,278	449,158
9	6.50% Series	6.50%	05/31/98	06/01/08	6,500,000	6,500,000	5,569	6,494,431	422,500	7,434	429,934
10	6.87% Series	6.87%	03/31/01	03/29/11	5,100,000	4,080,000	17,936	4,062,064	280,296	5,004	285,300
11	6.15% Series (proposed)	6.15%	12/15/06	12/15/16	36,500,000	36,500,000	337,622	36,162,378	2,244,750	33,762	2,278,512
12											
13											
14											
15	Capital Lease 9.489%	9.489%	06/01/98	05/31/13	1,590,500	902,161		902,161	97,432	0	97,432
16											
17											
18	Total										
19											
20											
21	Embedded Cost of Long-Term Debt										
22											
23											
24											
25											
26											
27											
28											
29											
30											
					\$57,890,500	\$56,182,161	\$423,081	\$55,759,080	\$3,723,108	\$50,003	\$3,773,111

6.77%

**Embedded Cost of Preferred Stock
At the Mid-Point of the Attrition Year**

Tennessee Regulatory Authority
Company: Tennessee-American Water Company
Case No:

Exhibit MAM-3
Page 3 of 3
Test Year: Twelve Months Ended: June 30, 2006

Line No.	Debt Issue Type, <u>Coupon Rate</u>	Issue <u>Date</u>	Face Amount <u>Outstanding</u>	Premium or <u>Discount</u>	Unamortized (Issuance) <u>Pfd Stk Exp</u>	Net Proceeds	<u>Dividends</u>	Annual Amort. of Issuance <u>Expense</u>	Total Annual <u>Cost</u>
1									
2									
3									
4	Cumulative Preferred								
5	5% Series	12/20/40	\$1,382,100	\$0	\$0	\$1,382,100	\$69,105	\$0	\$69,105
6	4-1/2% Series	7/29/54	0	0	0	0	0	0	0
7									
8									
9	Total		1,382,100	0	0	1,382,100	69,105	0	69,105
10									
11									

Embedded Cost of Preferred Stock

5.00%

Tennessee American Water
Analysis of Interest Rates of Past Year

Exhibit MAM-4
Page 1 of 2

Value Line Publication Date	As of Market Date	"A" Rated Utility Bonds	30-year Treasury Bonds	Spread	10-year Corporate Bonds	10-year Treasury Bonds	Spread	13-Week Treasury Bills	Federal Reserve Rate
10/14/2005	10/6/2006	5.570%	4.610%	0.960%	5.270%	4.390%	0.880%	3.590%	3.750%
10/21/2005	10/13/2005	5.640%	4.690%	0.950%	5.350%	4.460%	0.890%	3.740%	3.750%
10/28/2005	10/20/2005	5.500%	4.660%	0.840%	5.320%	4.430%	0.890%	3.830%	3.750%
11/4/2005	10/27/2005	5.700%	4.770%	0.930%	5.470%	4.550%	0.920%	3.880%	3.750%
11/11/2005	11/3/2005	5.780%	4.840%	0.940%	5.560%	4.650%	0.910%	3.930%	4.000%
11/18/2005	11/10/2005	5.640%	4.740%	0.900%	5.460%	4.550%	0.910%	3.960%	4.000%
11/25/2005	11/17/2005	5.570%	4.670%	0.900%	5.390%	4.490%	0.900%	4.010%	4.000%
12/2/2005	11/23/2005	5.660%	4.700%	0.960%	5.440%	4.490%	0.950%	3.940%	4.000%
12/9/2005	12/1/2005	5.680%	4.720%	0.960%	5.490%	4.510%	0.980%	3.960%	4.000%
12/16/2005	12/8/2005	5.650%	4.670%	0.980%	5.440%	4.460%	0.980%	3.930%	4.000%
12/23/2005	12/15/2005	5.670%	4.670%	1.000%	5.440%	4.460%	0.980%	3.940%	4.250%
12/30/2005	12/22/2005	5.590%	4.610%	0.980%	5.390%	4.430%	0.960%	3.980%	4.250%
1/6/2006	12/29/2005	5.530%	4.510%	1.020%	5.310%	4.350%	0.960%	3.990%	4.250%
Quarterly Average		5.529%	4.682%	0.948%	5.410%	4.478%	0.932%	3.898%	3.981%
1/13/2006	1/5/2006	5.580%	4.550%	1.030%	5.300%	4.350%	0.950%	4.180%	4.250%
1/20/2006	1/12/2006	5.620%	4.580%	1.040%	5.350%	4.400%	0.950%	4.300%	4.250%
1/27/2006	1/19/2006	5.590%	4.550%	1.040%	5.320%	4.370%	0.950%	4.350%	4.250%
2/3/2006	1/26/2006	5.730%	4.690%	1.040%	5.450%	4.520%	0.930%	4.330%	4.250%
2/10/2006	2/2/2006	5.740%	4.700%	1.040%	5.490%	4.560%	0.930%	4.470%	4.500%
2/17/2006	2/9/2006	5.690%	4.650%	1.040%	5.430%	4.540%	0.890%	4.510%	4.500%
2/24/2006	2/16/2006	5.630%	4.570%	1.060%	5.500%	4.580%	0.920%	4.530%	4.500%
3/3/2006	2/23/2006	5.560%	4.500%	1.060%	5.450%	4.560%	0.890%	4.580%	4.500%
3/10/2006	3/2/2006	5.660%	4.610%	1.050%	5.520%	4.630%	0.890%	4.590%	4.500%
3/17/2006	3/9/2006	5.830%	4.720%	1.110%	5.650%	4.720%	0.930%	4.570%	4.500%
3/24/2006	3/16/2006	5.790%	4.690%	1.100%	5.570%	4.640%	0.930%	4.590%	4.500%
3/31/2006	3/23/2006	5.860%	4.750%	1.110%	5.660%	4.730%	0.930%	4.660%	4.500%
4/7/2006	3/30/2006	5.980%	4.900%	1.080%	5.810%	4.860%	0.950%	4.600%	4.750%
Quarterly Average		5.712%	4.651%	1.062%	5.500%	4.574%	0.926%	4.482%	4.442%
4/14/2006	4/6/2006	6.060%	4.970%	1.090%	5.820%	4.900%	0.920%	4.670%	4.750%
4/21/2006	4/12/2006	6.160%	5.060%	1.100%	5.900%	4.980%	0.920%	4.700%	4.750%
4/28/2006	4/20/2006	6.240%	5.140%	1.100%	5.960%	5.040%	0.920%	4.720%	4.750%
5/5/2006	4/27/2006	6.250%	5.170%	1.080%	6.000%	5.070%	0.930%	4.770%	4.750%
5/12/2006	5/4/2006	6.340%	5.240%	1.100%	6.090%	5.150%	0.940%	4.790%	4.750%
5/19/2006	5/11/2006	6.330%	5.230%	1.100%	6.080%	5.150%	0.930%	4.810%	5.000%
5/28/2006	5/18/2006	6.280%	5.170%	1.110%	6.010%	5.060%	0.950%	4.820%	5.000%
6/2/2006	5/25/2006	6.260%	5.170%	1.090%	6.020%	5.070%	0.950%	4.810%	5.000%
6/9/2006	6/1/2006	6.250%	5.190%	1.060%	6.040%	5.100%	0.940%	4.820%	5.000%
6/16/2006	6/8/2006	6.150%	5.060%	1.090%	5.960%	4.990%	0.970%	4.850%	5.000%
6/23/2006	6/15/2006	6.200%	5.140%	1.060%	6.060%	5.090%	0.970%	4.820%	5.000%
6/30/2006	6/22/2006	6.330%	5.240%	1.090%	6.180%	5.210%	0.970%	4.900%	5.000%
7/7/2006	6/29/2006	6.330%	5.250%	1.080%	6.180%	5.190%	0.990%	4.990%	5.250%
Quarterly Average		6.245%	5.156%	1.088%	6.023%	5.077%	0.946%	4.805%	4.923%
7/14/2006	7/6/2006	6.260%	5.220%	1.040%	6.140%	5.180%	0.960%	4.990%	5.250%
7/21/2006	7/13/2006	6.190%	5.110%	1.080%	6.020%	5.060%	0.960%	5.040%	5.250%
7/28/2006	7/20/2006	6.120%	5.080%	1.040%	6.010%	5.030%	0.980%	5.080%	5.250%
8/4/2006	7/27/2006	6.180%	5.100%	1.080%	6.030%	5.030%	1.000%	5.090%	5.250%
8/11/2006	8/3/2006	6.090%	5.040%	1.050%	5.950%	4.960%	0.990%	5.100%	5.250%
8/18/2006	8/10/2006	6.140%	5.070%	1.070%	5.890%	4.930%	0.960%	5.040%	5.250%
8/25/2006	8/17/2006	6.070%	5.000%	1.070%	5.820%	4.860%	0.960%	5.080%	5.250%
9/1/2006	8/25/2006	5.980%	4.940%	1.040%	5.760%	4.800%	0.960%	5.080%	5.250%
9/8/2006	8/31/2006	5.920%	4.880%	1.040%	5.680%	4.730%	0.950%	5.030%	5.250%
9/15/2006	9/7/2006	5.980%	4.930%	1.050%	5.730%	4.790%	0.940%	4.960%	5.250%
9/22/2006	9/14/2006	5.980%	4.920%	1.060%	5.720%	4.790%	0.930%	4.930%	5.250%
9/29/2006	9/21/2006	5.790%	4.770%	1.020%	5.540%	4.640%	0.900%	4.910%	5.250%
10/6/2006	9/28/2006	5.740%	4.760%	0.980%	5.540%	4.610%	0.930%	4.860%	5.250%
Quarterly Average		6.034%	4.986%	1.048%	5.833%	4.878%	0.955%	5.015%	5.250%

	2007 Projected 30-Yr. "A" Rated Util. <u>Bond Rate</u>	2007 Value Line <u>Forecast</u>	Average <u>Spread</u>	2007 Projected 10-Yr. "A" Rated Util. <u>Bond Rate</u>	2007 Value Line <u>Forecast</u>	Average <u>Spread</u>
2007 Value Line Projection (8-25-06):						
"A" Rated Utility Bonds 30-Yr. & 10-Yr.						
Corp. Bonds based on:						
Latest 2 Qtr. Avg. Spread	6.47%	5.40%	1.068%	6.15%	5.20%	0.951%
Latest 4 Qtr. Avg. Spread	6.44%	5.40%	1.036%	6.14%	5.20%	0.940%