

STATE OF TENNESSEE

Office of the Attorney General



**ROBERT E. COOPER, JR.**  
ATTORNEY GENERAL AND REPORTER

**ANDY D. BENNETT**  
CHIEF DEPUTY ATTORNEY GENERAL

**LUCY HONEY HAYNES**  
ASSOCIATE CHIEF DEPUTY  
ATTORNEY GENERAL

MAILING ADDRESS

P.O. BOX 20207  
NASHVILLE, TN 37202

**MICHAEL E. MOORE**  
SOLICITOR GENERAL

CORDELL HULL BUILDING  
NASHVILLE, TN 37243-0485

TELEPHONE (615) 741-3491  
FACSIMILE (615) 741-2009

April 9, 2007

Chairman Sara Kyle  
c/o Sharla Dillon  
Tennessee Regulatory Authority  
460 Robertson Parkway  
Nashville, Tennessee 37243-0505

Re: *Tennessee American Water Company Rate Case*  
TRA Docket No. 06-00290

Dear Chairman Kyle:

Enclosed please find Terry Buckner's Supplemental Responses to No. 3 of the Company's discovery requests to the Consumer Advocate Division.

Very truly yours,

A handwritten signature in dark ink, appearing to read "Steve Butler".

Steve Butler  
Assistant Attorney General  
(615) 741-8722

cc: Mr. R. Dale Grimes  
Mr. J. Richard Collier  
Mr. Henry W. Walker  
Mr. Michael A. McMahan  
Mr. David G. Higney  
Mr. Fredrick L. Hitchcock

1                   TENNESSEE-AMERICAN WATER COMPANY

2                   CASE NO: 03 00/18

3                   DIRECT TESTIMONY

4                   Sheila A. Valentine

5  
6   1.   Q.   WILL YOU PLEASE STATE YOUR NAME AND BUSINESS  
7           ADDRESS FOR THE RECORD?

8       A.   My name is Sheila A. Valentine and my business address is 1600  
9           Pennsylvania Avenue, Charleston, WV 25327.

10  
11 2.   Q.   BY WHOM ARE YOU EMPLOYED AND IN WHAT  
12          CAPACITY?

13      A.   I am employed by American Water Works Service Company as a  
14          Senior Financial Analyst.

15  
16 3.   Q.   WHAT ARE YOUR RESPONSIBILITIES IN THIS POSITION?

17      A.   My responsibilities include the preparation and presentation of  
18          rate filings requested by five operating companies comprising the  
19          Southeast Region of the American Water Works Service  
20          Company. I am also responsible for various accounting duties  
21          including budget preparation, account reconciliation, and  
22          financial statement analysis.

23  
24 4.   Q.   WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL  
25          BACKGROUND AND BUSINESS EXPERIENCE?

26      A.   In 1983, I graduated Summa Cum Laude with a Bachelor of Arts  
27          degree from Glenville State College with a major in Accounting  
28          and Management, and a minor in Economics. In 1988, I received  
29          my Certified Public Accountant (CPA) license.

1  
2 I assisted with the recent system-wide acquisition integration of  
3 Citizens Water by serving on the Acquisition Team. I also  
4 participated in the set up of the system-wide conversion process  
5 for the Shared Services Center by assisting IS with reporting  
6 processes.

7  
8 I have worked with the American System for 18 years and began  
9 my career in December 1984, as a Junior Accountant. In that  
10 capacity I worked in the Construction Accounting Department for  
11 American Water Works Service Company.

12  
13 Throughout the years, I have moved through the ranks of the  
14 financial side of the business from Accountant in 1985,  
15 Construction Accounting Supervisor for the Southeast Region in  
16 1988, Construction Accounting Superintendent for West Virginia  
17 American Water Company in 1992, Assistant Director of  
18 Accounting for West Virginia American in 1995, Director of  
19 Accounting for West Virginia American in 1997, Director of  
20 Accounting for the Southeast Region in 2000, and due to the  
21 reorganization of the Shared Services Center, I was transferred to  
22 Senior Financial Analyst for the Southeast Region in 2002. I have  
23 vast accounting knowledge and expertise in the financial aspects  
24 of the company. I have assisted with preparing data for the  
25 recent Virginia American rate case and have also prepared  
26 schedules for various data requests.

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

3 A. My testimony will 1) sponsor the Company's Accounting Exhibits  
4 Nos. 1, 2, 3, and 4 which support the proposed revenue increase of  
5 \$3,866,813, and 2) support the Company's attrition year level of  
6 Fuel and Power, Chemicals, Waste Disposal, Regulatory Expense,  
7 Insurance Other than Group, Uncollectible Expense, Rents,  
8 General Office Expense, Miscellaneous Expense, Other  
9 Maintenance Expense AFUDC, and General Taxes.

10  
11 6. Q. WHAT IS THE TEST PERIOD REFLECTED IN THIS CASE?

12 A. The Company has used a historical test period of twelve months  
13 ending July 31, 2002. The Company has adjusted the test period  
14 for two levels of adjustments. The first adjustment normalizes the  
15 test year. The second level adjusts the normalized year to arrive  
16 at the attrition year which is the twelve months ended March 31,  
17 2004.

18  
19 7. Q. MS. VALENTINE, ARE THERE ANY EXHIBITS YOU WISH  
20 TO SPONSOR BEFORE YOU CONTINUE?

21 A. Yes, I would like to give a brief description of the accounting  
22 schedules which detail and support the rate base, revenues,  
23 expenses, capitalization and bill analysis for the test year and  
24 attrition year.

25  
26 Exhibit 1 is a financial summary of the filing which details how  
27 the Company arrived at the amount of the requested revenue  
28 increase. There is also a rate base summary for the test year and  
29 attrition year with supporting schedules.

1  
2 Exhibit 2 is an operating income summary for the test year and  
3 attrition year with supporting schedules broken down by major  
4 account group.  
5

6 Exhibit 3 provides a cost of capital summary for the attrition year  
7 and supporting schedules which provide detail on each component  
8 of the capital structure.  
9

10 Exhibit 4 provides a bill analysis for the attrition year at both  
11 present and proposed rates.  
12

13 8. Q. WHAT IS THE BASIS UPON WHICH FUEL AND POWER  
14 COST WAS CALCULATED FOR THIS RATE ADJUSTMENT?

15 A. The basis for fuel and power is based upon expected water  
16 pumped to the system during the attrition year (system delivery),  
17 and its cost to pump and treat. Attrition year water sales, non-  
18 revenue usage water (which is water used for system flushing,  
19 street cleaning, sewer flushing, etc.) and an estimated  
20 unaccounted for water is combined to arrive at system delivery.  
21 Fuel and power is based on KWH's per million gallons system  
22 delivery.  
23

24 Fuel and power costs are based on estimated KWH usage and  
25 KWD required to produce the projected system delivery for the  
26 attrition year. KWH's per thousand gallons is used to calculate  
27 energy charges. The KWH's per thousand gallons required is  
28 based on the latest 12 months actual, with adjustments for any  
29 known changes that will affect KWH usage. Both KWH and  
30 KWD usage is priced at the rates currently being charged by the  
31 Chattanooga Electric Power Board. The total attrition year fuel

1 and power expense is \$ 1,551,622 which represents an increase of  
2 \$ 45,943 over the test year expense due to an increase in overall  
3 system delivery.  
4

5 9. Q. WHAT IS THE BASIS FOR THE CHEMICAL COSTS?

6 A. Chemical costs are based upon expected water pumped to the  
7 system (system delivery) for the attrition year and the cost to treat  
8 that water. Attrition year water sales, non-revenue usage (used  
9 for street cleaning, sewer flushing, etc.) and an estimated  
10 unaccounted for water is combined to arrive at system delivery.  
11 System delivery, plus water used at the treatment plant, is  
12 combined to produce total treatment rate. The total attrition year  
13 chemical expense is \$740,531 which is an increase of \$16,994 over  
14 the test year expense due to the increase in system delivery.  
15

16 10. Q. WHAT IS THE BASIS FOR THE COST OF WASTE  
17 DISPOSAL?

18 A. Waste disposal is based upon the 2003 budget. This amount is less  
19 than that during the test year due to a reduction in the amount  
20 estimated for the Industrial User Surcharge.  
21

22 11. Q. MS. VALENTINE, YOU LISTED A NUMBER OF OTHER  
23 EXPENSE CATEGORIES THAT YOU WILL BE  
24 SUPPORTING, WOULD YOU PLEASE DISCUSS EACH ONE?

25 A. Yes. Each of the following expense categories were reviewed for  
26 the test year and adjusted to reflect a normalized test year and  
27 further adjusted to an appropriate level of expense for the

1 attrition year. Some of the expense categories were adjusted for  
2 an inflation factor of 3.275%.

3  
4 12. Q. HOW DID YOU ARRIVE AT THE 3.275% INFLATION  
5 FACTOR?

6 A. I used the Value Line Forecast for the US Economy Gross  
7 Domestic Product estimated inflation rate. For the attrition year,  
8 I used 9/12 of the 2003 rate of 3.2 % and the 3/12 of the 2004 rate  
9 of 3.5% to arrive at the 3.275%.

10  
11 REGULATORY EXPENSE

12 The company has estimated the cost of the preparation and  
13 presentation of this current filing to be \$225,000. The Company is  
14 proposing to amortize these costs over a three year period  
15 resulting in an annual cost of \$75,000. Also, included in the  
16 attrition year cost is the Cost of Service Study Expense in the  
17 amount of \$40,000 which the company is proposing an  
18 amortization period of five years resulting in an annual cost of  
19 \$8,000. Total attrition year expense is \$83,000.

20  
21 INSURANCE OTHER THAN GROUP

22 The Company's proposed level for this expense for the attrition  
23 year is \$709,686 and is based on the Company's 2003 budget.  
24 This expense category includes costs for general liability, workers  
25 compensation, and property insurance.

26  
27 CUSTOMER ACCOUNTING EXPENSE

28 Customer accounting expense for the test year was \$435,427  
29 (including an adjustment for customer billing). The Company  
30 applied the inflation factor of 3.275% to these expenses, excluding  
31 uncollectibles and postage to arrive at an increase of \$6,632. A  
32 reduction of \$34,976 was the result of the relocation of the  
33 Customer Call Center. In addition, a reduction of \$14,693 was  
34 due to IS Billing costs being moved to Management Fees. As a  
35 result, the net affect of the customer accounting expense for the  
36 attrition year is a decrease of \$22,457.

1  
2 This category includes costs associated with the customer billing  
3 and collecting function. It includes costs for office supplies, report  
4 forms, computer supplies, postage, collection agency fees, lock box  
5 expenses, janitorial service, telephone expense, and other  
6 miscellaneous customer accounting expense.

7  
8 **UNCOLLECTIBLE EXPENSE**

9 The uncollectible percentage of .91% was derived by taking the  
10 net charge offs, less recoveries as a percentage of total revenues  
11 for the test year. The attrition year uncollectible expense is  
12 \$280,645.

13  
14 **RENTS**

15 Rent expense for the test year was \$28,642. The Company is  
16 proposing an increase to rent expense due to a new 2 way radio  
17 lease resulting in an attrition year expense of \$42,729. This  
18 category includes the costs associated with the renting of mobile  
19 radios, postage equipment, copiers, and land.

20  
21 **GENERAL OFFICE EXPENSE**

22 General office expense for the test year was \$255,122. The  
23 Company made an adjustment to eliminate various social club  
24 and country club expenses as a result of the Compliance Audit  
25 dated September 18, 1996. The inflation factor of 3.275% was  
26 applied to the remaining expenses (excluding postage) to arrive at  
27 an attrition year expense of \$260,878. This expense category  
28 includes costs associated with the general expenses for the offices.  
29 These include report forms, office supplies, computer supplies,  
30 overnight mail expenses, janitorial services, telephone expense,  
31 electrical expense, employee expenses, credit line fees, bank  
32 service charges, and other miscellaneous general office expenses.

33  
34 **MISCELLANEOUS EXPENSE**

35 Miscellaneous expense for the test year totaled \$1,538,255. The  
36 Company is proposing six adjustments to this category. The first  
37 adjustment reflects the inflation factor adjustment of 3.275%.  
38 This results in an increase of \$43,528. The Company did not  
39 apply the inflation factor to the Employee Stock Option Plan  
40 (ESOP) expense or the 401K expense.  
41



1 The second adjustment applies to the ESOP and 401K expense.  
2 The net result of this adjustment is (\$1,548) which was based upon  
3 the reduction in overall associates due to the relocation of the call  
4 center.

5  
6 The third adjustment eliminated the cost of temporary employees  
7 and normalized the test year. This resulted in a decrease of  
8 \$51,057. Adjustments were also made to transfer lobbying  
9 expenses and club dues to below the line per the Compliance  
10 Audit dated September 18, 1996.

11  
12 The fourth adjustment includes security costs calculated at  
13 \$12,960 per month and the related amortization of the current  
14 deferred security costs. The Company is proposing a three year  
15 amortization of the deferred security costs. The fifth adjustment  
16 is the amortization of the transition costs for the Shared Services  
17 Center and the Customer Call Center. The Company is proposing  
18 a ten year amortization period resulting in an annual  
19 amortization amount of \$64,600 for the Shared Services Center  
20 and \$48,200 for the Customer Call Center.

21  
22 The sixth adjustment includes transferring \$63,640 in lab costs  
23 and research and development costs to Management Fees.

24  
25 The proposed miscellaneous expense for the attrition year is  
26 \$1,820,924 which includes adjustments totaling \$282,669.

27  
28 MAINTENANCE EXPENSE

29 Maintenance expense for the test year was \$639,533. One  
30 adjustment was made to annualize street opening costs to arrive  
31 at a normalized test year amount of \$678,112. The company is  
32 proposing to increase this total by \$22,208 to reflect the inflation  
33 factor to arrive at an attrition year balance of \$700,320.

34  
35 This expense category includes costs associated with maintaining  
36 the property of the Company. This would include repair parts,  
37 tools, maintenance supplies, contracted services, paving,  
38 maintenance agreements, and other miscellaneous maintenance  
39 expenses.

40  
41 AFUDC

1 The Company's proposed amount for AFUDC is \$51,739 and is  
2 based upon the 2003 budget. This adjustment was made to reflect  
3 the AFUDC as an above the line item for ratemaking purposes.  
4

5 TAXES OTHER THAN INCOME  
6 PROPERTY TAXES  
7

8 Property taxes for the test year were \$2,527,771. An additional  
9 amount was accrued during the last quarter of the test year to  
10 true-up the prior years' actual payment. This resulted in a  
11 normalized adjustment of (\$65,206). The attrition year  
12 adjustment of \$198,092 reflects the increase in the appraised value  
13 of the Company property through the attrition year.  
14

15 GROSS RECEIPTS TAXES

16 Gross receipts tax was calculated based on projected  
17 jurisdictional revenues for Tennessee including Other Operating  
18 revenues. The result was reduced by Vendor's Compensation,  
19 Franchise Tax, Excise Tax, a \$5,000 exemption, and multiplied by  
20 the 3% tax rate.  
21

22 PSC FEES

23 The PSC Inspection Fee was based on projected 2002  
24 jurisdictional revenues. This was reduced by uncollectibles and a  
25 \$5,000 exemption to arrive at taxable revenues. The result is  
26 multiplied by the Tennessee statutory rates that were taken from  
27 the 2001 return.  
28

29 FRANCHISE TAX

30 Franchise tax, as imposed by the state of Tennessee, applies to the  
31 company's apportioned net worth or value of property owned and  
32 used in Tennessee, whichever is greater, as shown at the close of  
33 the corporation's fiscal year. The Franchise Tax is paid in  
34 arrears and is based on the previous years original cost of assets.  
35 For this filing, we utilized the balances as of July 31, 2002 as a  
36 basis for the tax and multiplied it by the statutory rate of \$.25 per  
37 \$100.  
38

39 13. Q. DOES THIS CONCLUDE YOUR TESTIMONY?

40 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 Sheila A. Valentine, being by me first duly sworn deposed and said that:

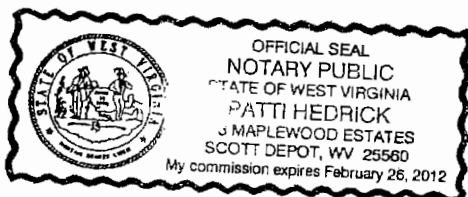
He is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Regulatory Authority, and if present before the Authority and duly sworn, his testimony would set forth in the annexed transcript consisting of 9 pages.

*Sheila A. Valentine*  
Sheila A. Valentine

Sworn to and subscribed before me  
this 3<sup>rd</sup> day of February 2003.

*Patti Hedrick*  
Notary Public

My commission expires *February 26, 2012*



Overall Financial Summary

Test Year: Twelve Months Ended: July 31, 2002  
 Sheila A. Valentine Exhibit No. 1, Schedule 1  
 Page 1 of 1

Line No.	Description	Reference to Supporting Exhibit	Proposed Test Year
1	Rate Base	Exhibit 1, Schedule 2	\$87,270,579
2	Operating Income at Attrition Year Present Rates	Exhibit 2, Schedule 1	5,193,431
3	Earned Rate of Return		5.950%
4	Rate of Return	Exhibit 3, Schedule 1	8.559%
5	Required Operating Income		7,469,489
6	Operating Income Deficiency		2,276,058
7	Gross Revenue Deficiency Factor		1.69890763
8	Revenue Deficiency		3,866,813
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			

Computation of Attrition Year Rate Base

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

Line No.	Additions	Footnote Reference	Per Books Rate Base @ 7/31/2002	Adjustments	Rate Base at Mid-Point of Attrition Year
1	Utility Plant in Service (UPIS)	(1)	\$140,498,698	\$5,736,077	\$146,234,775
2	Construction Work In Progress	(2)	3,135,962	(2,334,303)	801,659
3	Utility Plant Capital Lease		1,590,500		1,590,500
4	Deferred Maintenance		16,921	(4,645)	12,276
5	Limited-Term Utility Plant - Net	(3)	(20,953)	0	(20,953)
6	Working Capital		1,567,918	0	1,567,918
7	Total Additions		146,789,046	3,397,129	150,186,175
8	Deductions				
9	Accumulated Provision for Depreciation UPIS	(4)	40,313,901	3,908,014	44,221,915
10	RWIP		(64,899)	0	(64,899)
11	Accumulated Amortization of Utility Plant Capital Lease	(5)	441,806	123,706	565,511
12	Deferred Income Taxes	(6)	10,377,120	693,373	11,070,493
13	Customer Advances for Construction	(7)	2,641,227	(633,789)	2,007,438
14	Contributions in Aid of Construction	(8)	4,818,360	245,885	5,064,245
15	Unamortized Investment Tax Credit	(9)	54,505	(3,612)	50,893
16	Utility Plant Acquisition Adjustment	(10)	0	0	0
17	Total Deductions		58,582,018	4,333,577	62,915,595
18	Rate Base		88,207,027	(936,448)	87,270,579

Attrition Year Rate Base  
Footnotes

Test Year: Twelve Months Ended: July 31, 2002  
Sheila A. Valentine Exhibit No. 1, Schedule 2  
Page 2 of 3

Tennessee Public Service Commission  
Company: Tennessee-American Water Company  
Case No.:

Line No.	FOOTNOTE REFERENCE	DESCRIPTION	AMOUNT
1			
2			
3			
4			
5			
6			
7			
8			
9			
10	(1)	Net Additions to UPIS through September 30, 2003	\$5,736,077
11	(2)	Adjustment to CWIP through September 30, 2003	(2,334,303)
12	(3)	Adjustment to Deferred Maintenance	(4,645)
13	(4)	Adjustment to Limited -Term Utility Plant - Net	0
14	(5)	Adjustment to Accumulated Provision for Depreciation of UPIS	3,908,014
15	(6)	Adjustment to Accumulated Amortization of Utility Plant - Capital Lease	123,706
16	(7)	Adjustment to Deferred Income Taxes	693,373
17	(8)	Change in Customer Advances	(633,789)
18	(9)	Change in Contributions in Aid of Construction	245,885
19	(10)	Change in Unamortized Investment Tax Credit	(3,612)
20	(11)	Adjustment to Utility Plant Acquisition Adjustment	0
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			

Net Additions to Utility Plant in Service  
 From End of Test Year to Mid-Point of Attraction Year

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No.:

Line No.	Account Number	Account Description	8/1/2002 to 12/31/2002 Additions	1/1/2003 to 9/30/2003 Additions	8/1/2002 to 12/31/2002 Retirements	1/1/2003 to 9/30/2003 Retirements	Net Additions to Utility Plant in Service 8/1/02-9/30/03
1	301.00	Organization	\$0	\$0	\$0	\$0	\$0
2	301.00	Land & Land Rights	\$0	\$0	\$0	\$0	\$0
3	303.00	Comprehensive Planning Study	\$0	\$0	\$0	\$0	\$0
4	303.99	Pumping Structures	\$0	\$0	\$0	\$0	\$0
5	304.22	Water Treatment Structures - Painting	\$0	\$0	\$0	\$0	\$0
6	304.31	Water Treatment Structures - Painting	\$0	\$0	\$0	\$0	\$0
7	304.32	T & D Structures	\$0	\$0	\$0	\$0	\$0
8	304.40	Office Structures	\$0	\$0	\$0	\$0	\$0
9	304.51	Stores, Shop, & Garage Structures	\$0	\$0	\$0	\$0	\$0
10	304.52	Miscellaneous Structures	\$0	\$0	\$0	\$0	\$0
11	304.53	Lakes, Rivers, & Other Intakes	\$0	\$0	\$0	\$0	\$0
12	306.20	Power Generation Equipment	\$0	\$0	\$0	\$0	\$0
13	310.20	Electric Pumping Equipment	\$0	\$0	\$0	\$0	\$0
14	311.22	Diesel Pumping Equipment	\$27,148	\$0	\$0	\$0	\$27,148
15	311.23	Other Pumping Equipment	\$0	\$0	\$0	\$0	\$0
16	311.27	Water Treatment Equipment	\$0	\$0	\$0	\$0	\$0
17	320.31	Granular Activated Carbon	\$0	\$0	\$0	\$0	\$0
18	320.33	T & D Reservoirs & Standpipes	\$320	\$720	\$0	\$0	\$1,040
19	330.41	T & D Reservoirs & Standpipes	\$569,654	\$0	\$0	\$0	\$569,654
20	330.42	Elevated Tanks & Standpipes	\$282,995	\$936,526	\$0	\$0	\$1,219,521
21	330.43	T & D Mains - Mains (4" or less)	\$408,010	\$0	\$0	\$0	\$408,010
22	331.40	T & D Mains - Mains (6" - 8")	\$0	\$0	\$0	\$0	\$0
23	331.41	T & D Mains - Mains (10" - 16")	\$0	\$0	\$0	\$0	\$0
24	331.42	T & D Mains - Mains (12" or More)	\$4,212	\$531,000	\$0	\$0	\$535,212
25	331.43	Services	\$261,454	\$341,700	\$0	\$0	\$603,154
26	333.40	Meters - Metal Case/Old Style	\$0	\$0	\$0	\$0	\$0
27	334.41	Meters - Plastic Case	\$0	\$0	\$0	\$0	\$0
28	334.42	Meters - Metal Case/New Style	\$21,800	\$29,300	\$22,039	\$37,300	(\$5,239)
29	334.43	Meter Installations	\$248,621	\$278,500	\$36,000	\$26,000	\$527,121
30	335.40	Hydrants	\$4,765	\$71,600	\$0	\$0	\$76,365
31	335.00	Other P/E SS	\$0	\$0	\$0	\$0	\$0
32	340.51	Office Furniture	\$0	\$0	\$0	\$0	\$0
33	340.52	Computer & Peripheral Equipment	\$0	\$2,128,969	\$0	\$0	\$2,128,969
34	340.53	Computer & Periph Personal	\$0	\$0	\$0	\$0	\$0
35	340.54	Computer & Periph Other	\$0	\$0	\$53,090	\$0	(\$53,090)
36	340.55	Computer Software	\$0	\$0	\$5,388	\$0	(\$5,388)
37	340.56	Computer Software Personal	\$0	\$0	\$0	\$0	\$0
38	340.57	Computer Software Other	\$0	\$0	\$0	\$0	\$0
39	340.58	Other Office Equipment	\$0	\$0	\$0	\$0	\$0
40	341.52	Light Trucks	\$0	\$21,000	\$0	\$0	\$21,000
41	341.53	Heavy Trucks	\$0	\$0	\$0	\$0	\$0
42	341.54	Automobiles	\$0	\$0	\$0	\$0	\$0
43	341.55	Transportation-Other	\$0	\$0	\$0	\$0	\$0
44	342.50	Stores Equipment	\$0	\$0	\$0	\$0	\$0
45	343.50	Tools, Shop, & Garage Equipment	\$0	\$40,500	\$0	\$0	\$40,500
46	344.50	Laboratory Equipment	\$0	\$0	\$0	\$0	\$0
47	345.50	Power Operated Equipment	\$0	\$0	\$0	\$0	\$0
48	346.51	Communication Equipment	\$0	\$0	\$0	\$0	\$0
49	346.52	Communication Equipment-Telephone	\$0	\$0	\$0	\$0	\$0
50	347.51	Miscellaneous Equipment	\$0	\$21,500	\$0	\$0	\$21,500
51		Total Plant in Service	1,028,979	-4,401,315	207,517	206,700	5,736,077

Computation of Working Capital

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

Line No.	Item	Amount
1	Average Cash	366,929
2	Prepaid Insurance	92,556
3	Prepaid Taxes	234,228
4	Materials & Supplies	346,535
5	Deferred Regulatory Expenses	223,500
6	Unamortized Debt Expense	238,260
7	Other Deferred Debits	1,521,988
8	Lead - Lag Study	525,000
9	Total	3,548,998
10	Less:	
11	Customer Deposits	0
12	Incidental Collections	1,981,081
13	Total	1,981,081
14	Working Capital Requirement	1,567,918



Computation of Working Capital  
 Lead/Lag Study

Line No.	Description	Days	Amount
1	Net Operating Funds		30,485,321
2			
3	Average Daily Operating Funds		83,521
4			
5	Composite Average Days Interval Between:		
6	(A) Date Service Furnished and Date Collections Deposited	42.07	
7	(B) Date Expenses Incurred and Date of Payment	35.79	
8	(C) Net Interval	6.28	
9			
10	Operating Funds Advanced		524,512
11	Lead/Lag Study Capital		524,512
12	Use		525,000
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			

Composite Average Days Interval between Date Expenses  
 are Incurred and Date of Payment

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

Line No.	Description	Amount	Post Payment or (Lead) Days	Dollar Days
1	Payrolls Charged to Expense - Hourly	3,107,510	5.50	17,091,305
2	Payrolls Charged to Expense - Salary	1,871,463	14.02	26,237,915
3	Fuel and Power	1,551,622	50.65	78,589,653
4	Chemicals	740,531	28.27	20,934,819
5	Waste Disposal	179,951	31.23	5,619,870
6	AWWS Charges	2,507,276	(4.46)	(11,182,451)
7	Group Insurance	862,753	(1.31)	(1,130,207)
8	Pensions	387,895	0.00	0
9	Insurance Other than Group	709,686	(21.72)	(15,414,380)
10	Rents	28,624	9.24	264,486
11	Telephone Expense	153,334	(2.73)	(418,602)
12	Postage Expense	265,193	24.77	6,568,832
13	Amortizations	0	0.00	0
14	Stock E	51,951	23.77	1,234,875
15				
16				
17				
18				
19				
20	Other Operating and Maintenance Expenses	3,694,518	20.51	75,774,559
21	Total O & M Expenses	18,112,307		
22				
23	Depreciation and Amortization	4,121,753	0.00	0
24	Taxes, Other than Income			
25	Payroll	457,400	10.61	4,853,016
26	Other	3,276,201	174.52	571,762,599
27	FIT-Current	194,667	37.00	7,202,679
28	SIT-Current	37,341	58.63	2,189,303
29	Deferred Taxes	1,092,221	0.00	0
30	Interest Expense	3,347,700	87.97	294,497,169
31	Preferred Dividends	72,295	89.48	6,468,957
32	Net Earnings	1,773,436	0.00	0
33	Net Operating Funds	30,485,321		1,091,144,397
34				
35				
36	Average Days Interval between Date Expenses are Incurred and Date of Payment		35.79	
37				
38				
39				
40				
41				
42				
43				
44				
45				

Average Days Interval between Number of Days  
 From Date Services are Furnished to Date Collections are Received

Line No.	Revenues Amount	Median Service Days	Dollar Days
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12	Revenues less private fire	15.21	427,134,524
13			
14	Private Fire billed in advance	(45.63)	(47,847,435)
15			
16	Total		<u>379,287,089</u>
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			

Average Median Service Days	13.02
Number of Days between the Reading Date and the Date the Bills are Mailed	4.62
Number of Days between the Reading Date and the Date the Bills are Mailed	24.43
Total Average Days' Interval between Number of Days from Date Services are Furnished to Date Collections are Received	<u>42.07</u>

Notes: private fire Quarterly is billed in advance  
 All monthly customers are billed in arrears

Tennessee Public Service Commission  
Company: Tennessee-American Water Company  
Case No:

Computation of Average Materials & Supplies Paid

Test Year: Twelve Months Ended: July 31, 2002  
Sheila A. Valentine Exhibit No. 1, Schedule 3  
Page 5 of 6

Line No.	End of Month	
	Date	Amount
1	Jul-01	440,569
2		
3	Aug-01	494,423
4		
5	Sep-01	469,586
6		
7	Oct-01	389,330
8		
9	Nov-01	339,416
10		
11	Dec-01	389,297
12		
13	Jan-02	405,581
14		
15	Feb-02	412,027
16		
17	Mar-02	361,829
18		
19	Apr-02	358,597
20		
21	May-02	368,397
22		
23	Jun-02	362,666
24		
25	Jul-02	364,209
26		
27	Total	5,155,957
28		
29		
30		
31		
32		
33		
34		
35		
36		
37		
38		
39		
40		
41		
42		
43		
44		
45		

Average Balance 396,612

Computation of Average Materials and Supplies Unpaid.

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

Line No.	Date	End of Month	Amount
1	Jul-01		49,999
2	Aug-01		51,015
3	Sep-01		80,838
4	Oct-01		52,585
5	Nov-01		18,040
6	Dec-01		38,256
7	Jan-02		66,200
8	Feb-02		42,800
9	Mar-02		72,819
10	Apr-02		37,813
11	May-02		44,500
12	Jun-02		41,302
13	Jul-02		54,837
14	Total		651,005

Average Balance 50,077

Line No. 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

**Statement of Income Per Books for the Test Year and for the Attrition Year under both Present and Proposed Rates**

Tennessee Public Service Commission  
Company: Tennessee-American Water Company  
Case No:

[illegible]

Operating Revenues Per Books for the Test Year and  
 for the Attrition Year under both Present and Proposed Rates

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

Line No.	Description	Per Books 12 Months Ended 7/31/2002	Test Year Adjustments Present Rates	Normalized Test Year	Attrition Year Adjustments	Attrition Year at Present Rates	Adjustments for Proposed Rates	Attrition Year at Proposed Rates
1	Sales of Water							
2								
3	Metered Sales to General Customers							
4								
5	Residential	\$11,862,531	\$145,303	\$12,007,834	\$19,089	\$12,026,923	\$1,938,896	\$13,965,819
6								
7	Commercial	8,901,842	202,432	9,104,274	78,185	9,182,459	1,115,735	10,298,194
8								
9	Industrial	3,499,312	38,495	3,537,807	0	3,537,807	262,796	3,800,603
10								
11	Other Public Authorities	2,330,856	(9,058)	2,321,798	24,007	2,345,805	268,663	2,614,468
12								
13	Sales for Resale	858,973	(2,755)	856,218	0	856,218	131,550	987,768
14								
15	Private Fire Service	1,090,391	(41,795)	1,048,596	68,279	1,117,875	0	1,117,875
16								
17	Public Fire Service	273,609	(19,060)	254,549	1,500	256,049	112,326	368,375
18								
19	Total Sales of Water	28,817,514	313,562	29,131,076	190,060	29,321,136	3,829,966	33,151,102
20								
21	Other Operating Revenues							
22								
23	Activity / New Service Fees	195,614	0	195,614	0	195,614	0	195,614
24								
25	Late Payment Penalty	277,315	3,017	280,332	1,829	282,161	36,856	319,017
26								
27	Rents from Water Property	101,764	0	101,764	0	101,764	0	101,764
28								
29	Sewer Billing Revenues	303,607	2,115	305,722	832	306,554	0	306,554
30								
31	Miscellaneous	28,659	0	28,659	0	28,659	0	28,659
32								
33	Reconnection Fee	173,468	0	173,468	0	173,468	0	173,468
34								
35	Total Other Operating Revenues	1,080,427	5,132	1,085,559	2,661	1,088,220	36,856	1,125,076
36								
37								
38								
39	Total Operating Revenues	29,897,941	318,694	30,216,635	192,721	30,409,356	3,866,822	34,276,178
40								
41								
42								
43								
44								
45								

Summary of Adjustments to Operation and Maintenance Expenses

Tennessee Public Service Commission  
Company: Tennessee-American Water Company  
Case No:

Line No.	Adjustment Number Reference	Description	Per Books 12 Months Ended 7/31/2002	Test Year Adjustments Present Rates	Normalized Test Year	Attrition Year Adjustments	Attrition Year at Present Rates	Adjustments for Proposed Rates	Attrition Year at Proposed Rates
1	1	Operation and Maintenance Labor	\$1,158,292	\$206,654	\$5,364,946	(\$298,280)	\$5,066,666	\$0	\$5,066,666
2	2	Purchased Water	\$17,561	0	17,561	0	17,561	0	17,561
3	3	Fuel and Power	\$1,505,679	42,665	1,548,344	3,278	1,551,622	0	1,551,622
4	4	Chemicals	\$723,537	14,887	738,424	2,107	740,531	0	740,531
5	5	Waste Disposal	\$179,951	(49,800)	130,151	0	130,151	0	130,151
6	6	Management Fees	\$1,497,568	0	1,497,568	1,009,708	2,507,276	0	2,507,276
7	7	Group Insurance	\$1,274,028	268,900	1,542,928	(79,004)	1,463,924	0	1,463,924
8	8	Pensions	\$44,557	416,073	460,630	(72,735)	387,895	0	387,895
9	9	Regulatory Expense	\$0	0	0	83,000	83,000	0	83,000
10	10	Insurance Other than Group	\$636,983	0	636,983	72,703	709,686	0	709,686
11	11	Customer Accounting	\$457,884	5,887	463,771	(28,344)	435,427	0	435,427
12	12	Uncollectible Expense	\$240,873	2,853	243,728	1,730	245,456	35,188	280,644
13	13	Rents	\$28,624	14,105	42,729	0	42,729	0	42,729
14	14	General Office Expense	\$255,122	(6,283)	248,839	12,039	260,878	0	260,878
15	15	Miscellaneous Expense	\$1,538,255	(69,738)	1,468,517	352,407	1,820,924	0	1,820,924
16	16	Other Maintenance Expense	\$639,533	38,579	678,112	22,208	700,320	0	700,320
17	17	Interest on Customer Deposits	0	0	0	0	0	0	0
18	18	AFUDC		(51,739)	(51,739)	0	(51,739)	0	(51,739)
Total Operation and Maintenance Expenses			14,198,447	833,044	15,031,491	1,080,817	16,112,307	35,188	16,147,495



Summary of Adjustments to Depreciation and Amortization Expenses

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No.

Line No.	Adjustment Number Reference	Description	Per Books 12 Months Ended 7/31/2002	Test Year Adjustments Present Rates	Normalized Test Year	Attrition Year Adjustments	Attrition Year at Present Rates	Adjustments for Proposed Rates	Attrition Year at Proposed Rates
1	1	Depreciation Expense	\$3,564,505	\$19,624	\$3,584,129	\$431,591	\$4,015,720	\$0	\$4,015,720
2	2	Amortization of Utility Plant Acquisition Adjustment	0	0	0	0	0	0	0
3	3	Amortization of Utility Capital Lease	106,033	0	106,033	0	106,033	0	106,033
4	4	Amortization of Leased Alteration Expense	0	0	0	0	0	0	0
5	5	Amortization of Accumulated Depreciation on CIAC	0	0	0	0	0	0	0
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
33									
34									
35									
36									
37									
38									
39									
40									
41									
42									
43									
44									
45									
			3,670,538	19,624	3,690,162	431,591	4,121,753	0	4,121,753

Atrition Year Provision for Depreciation Expense  
For Utility Plant In Service

Tennessee Public Service Commission  
Company: Tennessee-American Water Company  
Case No:

Line No.	Account Number	Account Description	Depreciable Property at 7/31/2002	Normalized Depreciation Expense	ADDITIONS	RETIREMENTS	Depreciable Property at Mid-Point of Atrition Year	Depreciation Rate	Atrition Year Depreciation Expense
1	303.99	Comprehensive Planning Study	\$405,132	\$81,026	0	0	\$405,132	20.00%	\$81,026
2	304.22	Pumping Structures	1,872,283	72,270	0	0	1,872,283	3.86%	72,270
3	304.31	Water Treatment Structures	1,706,175	77,972	0	0	1,706,175	4.57%	77,972
4	304.32	Water Treatment Structures-Painting	1,700,789	170,079	0	0	1,700,789	10.00%	170,079
5	304.40	T & D Structures	502,832	17,642	0	0	502,832	3.51%	17,642
8	304.51	Office Structures	151,528	6,031	0	0	151,528	3.99%	6,031
7	304.52	Stores, Shop, & Garage Structures	319,733	14,868	0	0	319,733	4.65%	14,868
8	304.53	Miscellaneous Structures	383,138	21,609	0	0	383,138	5.64%	21,609
9	306.20	Lakes, Rivers, & Other Inlets	281,452	9,569	0	0	281,452	3.40%	9,569
10	310.20	Power Generation Equipment	222,196	7,644	0	0	222,196	3.44%	7,644
11	311.22	Electric Pumping Equipment	5,633,368	97,458	27,148	0	5,660,516	1.73%	97,427
12	311.23	Deisel Pumping Equipment	119,296	2,350	0	0	119,296	1.97%	2,350
13	311.27	Other Pumping Equipment	5,145	203	0	0	5,145	3.94%	203
14	320.31	Water Treatment Equipment	522,828	522,828	0	0	12,244,225	4.27%	522,828
15	320.33	Granular Activated Carbon	0	0	0	0	0	36.42%	0
16	330.41	T & D Reservoirs & Standpipes	4,840,438	87,128	1,040	0	4,841,478	1.80%	87,147
17	330.42	T & D Reservoirs & Standpipes-Painting	551,948	55,195	599,854	0	1,121,602	10.00%	112,180
18	330.43	Elevated Tanks & Standpipes	162,313	2,922	0	0	162,313	1.80%	2,922
19	331.40	T & D Mains not Classified	2,010,419	28,347	1,219,521	173,000	3,056,940	1.41%	43,103
20	331.41	T & D Mains - Mains (4" or less)	3,757,167	60,868	0	0	3,757,167	1.62%	60,868
21	331.44	T & D Mains - Mains (6" - 8")	826	11	408,010	32,000	376,836	1.36%	5,125
22	331.47	T & D Mains - Mains (8" - 10")	47,208,884	842,041	0	0	47,208,884	1.36%	842,041
23	331.45	T & D Mains - Mains (10" - 18")	1,344,135	18,087	0	0	1,344,135	1.42%	18,087
24	331.43	T & D Mains - Mains (18" or More)	19,657,171	279,132	535,212	100,000	20,092,383	1.42%	285,312
25	333.40	Services	13,477,382	307,284	603,154	0	14,080,536	2.28%	321,036
26	334.41	Meters	2,422,703	23,742	0	0	2,422,703	0.98%	23,742
27	334.42	Meters-Metal Case/Old Style	0	0	0	0	0	2.45%	0
28	334.43	Meters - Plastic Case	91,620	14,084	0	0	91,620	15.35%	14,084
29	334.44	Meters - Metal Case/New Style	189,205	1,854	51,100	59,339	180,966	0.98%	1,773
30	334.45	Meter Installations	5,810,815	95,297	527,121	0	6,337,938	1.84%	103,942
31	335.40	Hydrants	5,753,841	127,180	76,365	81,000	5,769,206	2.21%	127,499
32	339.00	Other-P/E SS	8,526	505	0	0	8,526	5.82%	505
33	340.51	Office Furniture	519,029	14,188	0	0	519,029	2.73%	14,188
34	340.53	Computer & Peripheral Equipment	142,137	22,800	2,128,989	0	2,271,106	15.90%	361,106
35	340.56	Computer & Periph Personal	1,218,780	193,488	0	0	1,218,780	15.90%	193,488
36	340.57	Computer & Periph Other	137,208	21,818	0	53,080	84,118	15.80%	13,375
37	340.55	Computer Software	525,510	166,850	0	0	525,510	31.75%	166,850
38	340.58	Computer Software Personal	166,142	52,750	0	5,388	160,754	31.75%	51,040
39	340.59	Computer Software Other	89,590	26,445	0	0	89,590	31.75%	28,445
40	340.54	Other Office Equipment	137,186	5,584	0	0	137,186	4.07%	5,584
41	341.52	Light Trucks	1,099,523	102,915	21,000	6,400	1,114,123	8.36%	104,282
42	341.53	Heavy Trucks	897,241	99,654	0	0	897,241	8.89%	99,654
43	341.54	Automobiles	163,795	17,284	0	0	163,795	10.54%	17,284
44	341.55	Transportation-Other	35,388	248	0	0	35,388	0.70%	248
45	342.50	Stores Equipment	43,392	2,161	0	0	43,392	4.98%	2,161
46	343.50	Tools, Shop, & Garage Equipment	741,035	26,530	40,500	0	781,535	3.85%	30,089
47	344.50	Laboratory Equipment	333,455	37,080	0	0	333,455	11.12%	37,080
48	345.50	Power Operated Equipment	229,342	21,122	0	4,000	225,342	8.21%	20,754
49	346.51	Communication Equipment	469,333	20,791	0	0	469,333	4.43%	20,791
50	346.53	Communication Equipment-Telephone	178,263	26,281	0	0	178,263	14.91%	26,281
51	347.51	Miscellaneous Equipment	258,584	7,473	21,500	0	280,084	2.89%	8,094
52		Amortization of CIAC	(101,256)						(107,357)
53		Total Plant In Service	140,015,456	3,584,129	8,230,284	494,217	145,751,533		4,015,720
54		Land	483,242				483,242		2,7600%
55		Cap Lease Asset	1,590,500				1,590,500		
56		Total UP	142,089,196				146,234,775		

Summary of Adjustments to Taxes Other than Income

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

Line No.	Adjustment Number Reference	Description	Per Books 12 Months Ended 7/31/2002	Test Year Adjustments Present Rates	Normalized Test Year	Attrition Year Adjustments	Attrition Year at Present Rates	Adjustments for Proposed Rates	Attrition Year at Proposed Rates
1	1	Property Taxes	\$2,527,771	(\$65,206)	\$2,462,565	\$198,092	\$2,660,657	\$0	\$2,660,657
2	2	Other General Taxes	700,397	0	700,397	(84,853)	615,544	106,489	722,033
3	3	F.U.T.A. Taxes	6,332	(12)	6,320	(763)	5,557	0	5,557
4	4	F. I. C. A. Taxes	388,029	17,707	405,736	(30,136)	375,600	0	375,600
5	5	S.U.T.A. Taxes	241	75	316	(38)	278	0	278
		Total	3,622,770	(47,436)	3,575,334	82,302	3,657,636	106,489	3,764,125

Summary of Income Taxes

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

Line No.	Description	Per Books 12 Months Ended 7/31/2002	Test Year Adjustments Present Rates	Normalized Test Year	Attrition Year Adjustments	Attrition Year at Present Rates	Adjustments for Proposed Rates	Attrition Year at Proposed Rates
1	Federal Income Tax - Current	\$1,217,805	(\$185,649)	\$1,032,156	(\$837,489)	\$194,667	\$1,225,570	\$1,420,237
2								
3	State Income Tax - Current	221,764	(31,589)	180,075	(152,734)	37,341	223,509	260,850
4								
5	Deferred Federal Income Tax	702,376		702,376	360,850	1,063,226	0	1,063,226
6								
7	Deferred State Income Tax	88,309	0	88,309	0	88,309	0	88,309
8								
9	Amortization of ITC	(79,314)	0	(79,314)	0	(79,314)	0	(79,314)
10								
11	Adjustment of Prior Years - FIT	0	0	0	0	0	0	0
12								
13	Adjustment of Prior Years - SIT	0	0	0	0	0	0	0
14								
15	Total	2,150,940	(217,336)	1,933,602	(609,373)	1,324,229	1,449,079	2,773,308

Computation of Current Federal and State Income Taxes Based on Current Rate for the  
 Company: Tennessee-American Water Company  
 Normalized and Adition Year and Proposed Rates for the Adition Year

Line No.	Description	Per Books Test Year Present Rates		Normalized Year Present Rates		Adition Year Present Rates		Adition Year Proposed Rates	
		Federal	State	Federal	State	Federal	State	Federal	State
1	Operating Revenues	\$29,897,841	\$29,897,841	\$30,216,835	\$30,216,835	\$30,409,359	\$30,409,359	\$34,276,169	\$34,276,169
2	Operating Expenses	14,188,447	14,188,447	15,051,491	15,051,491	16,112,307	16,112,307	18,147,495	18,147,495
3	Depreciation and Amortization	3,819,538	3,819,538	3,890,162	3,890,162	4,121,753	4,121,753	4,121,753	4,121,753
4	Taxes, Other than Income	3,832,778	3,832,778	3,972,444	3,972,444	3,957,636	3,957,636	3,764,125	3,764,125
5	State Income Taxes - Current	221,784	221,784	88,309	88,309	88,309	88,309	280,850	280,850
6	State Income Taxes - Deferred	88,309	88,309	88,309	88,309	88,309	88,309	88,309	88,309
7	Federal Income Taxes - Current	1,217,805	1,217,805	763,812	763,812	184,887	184,887	1,420,237	1,420,237
8	Federal Income Taxes - Deferred	702,376	702,376	702,376	702,376	1,083,228	1,083,228	1,083,228	1,083,228
9	Investment Tax Credit	(78,314)	(78,314)	(78,314)	(78,314)	(78,314)	(78,314)	(78,314)	(78,314)
10	Subtotal	23,642,895	23,642,895	23,906,619	23,906,619	25,215,925	25,215,925	28,905,681	28,905,681
11	Total Income Before Deductions	6,255,246	6,255,246	6,310,216	6,310,216	6,193,431	6,193,431	7,469,488	7,469,488
12	Total Other Income	124,838	124,838						
13	Total Other Deductions	104,055	104,055						
14	Total Taxes Applicable to Other Income and Deductions	-572	-572						
15	Total Interest Charges	3,279,283	3,279,283	3,347,700	3,347,700	3,347,700	3,347,700	3,347,700	3,347,700
16	Net Income	2,967,318	2,967,318	2,962,318	2,962,318	1,845,731	1,845,731	4,121,788	4,121,788
17	State Income Taxes	308,375	308,375	278,384	278,384	125,850	125,850	340,159	340,159
18	Federal Income Taxes	1,640,335	1,640,335	1,386,674	1,386,674	1,088,579	1,088,579	2,424,149	2,424,149
19	Pretax Income	5,147,228	5,147,228	4,827,374	4,827,374	3,188,060	3,188,060	8,895,086	8,895,086
20	Statutory Additions (Deductions):								
21	Permanent Difference	617,001	7,639	7,639	7,639	7,639	7,639	7,639	7,639
22	Book Over Tax Travel and Entertainment	818,008	446	446	446	446	446	446	446
23	Non-deductible Dues	818,008	5,893	5,893	5,893	5,893	5,893	5,893	5,893
24	Lobbying Expenses	835,000	146	146	146	146	146	146	146
25	Non-deductible Penalties								
26	Total Permanent Differences	14,123	14,123	14,123	14,123	14,123	14,123	14,123	14,123
27	Financial Taxable Income	5,161,351	5,161,351	4,841,497	4,841,497	3,194,053	3,194,053	8,809,219	8,809,219
28	Temporary Differences								
29	804,064 Contributions and Advances	112,899	112,899	112,899	112,899	112,899	112,899	112,899	112,899
30	605,001 Book Over Tax Depreciation	1,078	1,078	1,078	1,078	1,078	1,078	1,078	1,078
31	612,001 Book Over Tax Bad Debts	(25,816)	(25,816)	(25,816)	(25,816)	(25,816)	(25,816)	(25,816)	(25,816)
32	619,002 Amortization of Regulatory Assets - AFUDC	13,354	13,354	13,354	13,354	13,354	13,354	13,354	13,354
33	619,070 Deferred Maintenance Expense	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650
34	619,025 Management Study Expense	42,601	42,601	42,601	42,601	42,601	42,601	42,601	42,601
35	619,023 Accrued OPEB Expense	(56,370)	(56,370)	(56,370)	(56,370)	(56,370)	(56,370)	(56,370)	(56,370)
36	618,029 Incentive Plan Expense	34,901	34,901	34,901	34,901	34,901	34,901	34,901	34,901
37	618,030 Regulatory Pension Expense	630,682	630,682	630,682	630,682	630,682	630,682	630,682	630,682
38	618,032 Miscellaneous Deferred Expenses	1,874	1,874	1,874	1,874	1,874	1,874	1,874	1,874
39	626,001 Tax Over Book Depreciation	(614,241)	(614,241)	(614,241)	(614,241)	(614,241)	(614,241)	(614,241)	(614,241)
40	635,014 Cost of Removal	(24,200)	(24,200)	(24,200)	(24,200)	(24,200)	(24,200)	(24,200)	(24,200)
41	635,015 AFUDC over Interest Capitalized for Taxes	(111,252)	(111,252)	(111,252)	(111,252)	(111,252)	(111,252)	(111,252)	(111,252)
42	635,018 Refund of Taxable Advances	(104,774)	(104,774)	(104,774)	(104,774)	(104,774)	(104,774)	(104,774)	(104,774)
43	635,022 Accrued Vacation Pay Expense	(56,666)	(56,666)	(56,666)	(56,666)	(56,666)	(56,666)	(56,666)	(56,666)
44	635,027 Abandonment Losses	(187,000)	(187,000)	(187,000)	(187,000)	(187,000)	(187,000)	(187,000)	(187,000)
45	635,040 Regulatory Pension Expense	(630,682)	(630,682)	(630,682)	(630,682)	(630,682)	(630,682)	(630,682)	(630,682)
46	635,036 Miscellaneous Deferred Expenses	(501,719)	(501,719)	(501,719)	(501,719)	(501,719)	(501,719)	(501,719)	(501,719)
47	Total Temporary Differences	(1,473,581)	(1,473,581)	(1,473,581)	(1,473,581)	(1,473,581)	(1,473,581)	(1,473,581)	(1,473,581)
48	Federal Taxable Income Before SIT	3,687,770	3,687,770	3,367,916	3,367,916	822,358	822,358	4,347,484	4,347,484
49	Preferred Dividend Credit			(28,824)	(28,824)			(28,824)	(28,824)
50	Taxable Income	221,288	221,288	190,075	190,075	37,341	37,341	280,850	280,850
51	State Income Tax	3,466,504	3,466,504	2,849,017	2,849,017	556,193	556,193	4,057,820	4,057,820
52	Computation of Taxes:								
53	State Income Tax @	1,213,276	221,288	1,032,168	190,075	194,857	37,341	1,420,237	280,850
54	Federal Income Tax @	(78,314)	0	(78,314)	0	(78,314)	0	(78,314)	0
55	Less: Tax Credits	1,133,962	221,288	952,842	190,075	115,353	37,341	1,340,823	280,850
56	Total Current Income Tax								

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

Test Year: Twelve Months Ended: July 31, 2002  
Sheila A. Valentine Exhibit No. 3, Schedule 1  
Page 1 of 1

Tennessee Public Service Commission  
Company: Tennessee-American Water Company  
Case No:

Line No.	Class of Capital	Reference	Amount	Percent of Total	Cost Rate	Weighted Cost of Capital
1						
2						
3	Long-term Debt	Schedule 2	\$44,145,309	50.02%	7.24%	3.621%
4						
5	Short-term Debt		5,429,000	6.15%	3.50%	0.215%
6						
7	Preferred Equity	Schedule 3	1,450,296	1.64%	5.01%	0.082%
8						
9	Common Equity					
10	Common Stock		19,106,970	21.65%	11.00%	2.381%
11	Retained Earnings		18,131,227	20.54%	11.00%	2.260%
12						
13	Total Capitalization		<u>88,262,802</u>	<u>100.00%</u>		<u>8.559%</u>
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
	Total Common Equity Return Proposed		<u>11.00%</u>			

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

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

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	23,959	2,476,041	231,250	1,537	232,787
8	8.25% Series	8.25%	06/25/92	06/01/05	3,200,000	3,200,000	2,142	3,197,858	264,000	1,975	265,975
9	6.77% Series	6.77%	06/08/93	06/01/03	0	0	0	0	0	0	0
10	7.84% Series	7.84%	09/04/96	08/03/06	5,700,000	5,700,000	50,866	5,649,135	446,880	2,278	449,158
11	6.50% Series	6.50%	05/31/98	06/01/08	6,500,000	6,500,000	30,365	6,469,636	422,500	7,434	429,934
12	6.87% Series	6.87%	03/31/01	03/29/11	5,100,000	5,100,000	34,619	5,065,381	350,370	5,004	355,374
13	7.30% Series (proposed)	6.60%	10/01/03	10/02/13	20,000,000	20,000,000	100,000	19,900,000	1,320,000	10,000	1,330,000
14											
15	Capital Lease 9.489%	9.489%	06/01/98	05/31/13	1,590,500	1,387,259		1,387,259	131,637	0	131,637
16											
17											
18	Total				\$44,590,500	\$44,387,259	\$241,950	\$44,145,309	\$3,166,637	\$28,228	\$3,194,865

Embedded Cost of Long-Term Debt

7.24%

Tennessee Public Service Commission  
Company: Tennessee-American Water Company  
Case No:

Test Year: Twelve Months Ended: July 31, 2002  
Sheila A. Valentine Exhibit No. 3, Schedule 3  
Page 1 of 1

[illegible]







## Attrition Year Revenues at Current and Proposed Rates

Tennessee Public Service Commission  
Residential Class  
Company : Tennessee-American Water Company  
Case No. :

Line No.		Per books			Normalized			Attrition Year at Present Rates			Attrition Year at Proposed Rates		
		Billing Determinate	Revenues	Determinate	Billing Determinate	Revenues	Determinate	Billing Determinate	Revenues	Determinate	Billing Determinate	Revenues	Determinate
1													
2													
3													
4													
5	Lakeview												
6	5/8 - Inch meter	33,240	307,138	33,252	9.24	307,248	33,309	9.24	307,775	33,309	10.00	333,090	
7	3/4 - Inch meter	0	0	0	13.86	-	-	13.86	-	-	15.00	0	
8	1 - Inch meter	45	1,038	45	23.07	1,038	45	23.07	1,038	45	25.00	1,125	
9	1 1/2 - Inch meter	0	46.18	0	46.18	-	-	46.18	-	-	50.00	0	
10	2 - Inch meter	0	73.86	0	73.86	-	-	73.86	-	-	80.00	0	
11	3 - Inch meter	0	138.50	0	138.50	-	-	138.50	-	-	150.00	0	
12	4 - Inch meter	0	230.83	0	230.83	-	-	230.83	-	-	250.00	0	
13	6 - Inch meter	0	461.67	0	461.67	-	-	461.67	-	-	500.00	0	
14	8 - Inch meter	0	738.67	0	738.67	-	-	738.67	-	-	800.00	0	
15	Total Meters	33,285	308,176	33,297		308,286	33,354		308,813	33,354		334,215	
16													
17	Volumetric												
18	First 400 Cubic Feet	113,922	16,974	113,970	0.149	16,982	114,198	0.149	17,016	114,198	0.343	39,170	
19	Next 6,100 Cubic Feet	93,666	289,895	96,431	3.085	297,490	96,562	3.085	297,894	96,562	2.997	289,396	
20	Next 43,500 Cubic Feet	793	1,768	793	2.230	1,768	793	2.230	1,768	793	2.009	1,593	
21	Next 450,000 Cubic Feet	0	0	0	1.189	-	-	1.189	-	-	1.424	0	
22	Next 1,000,000 Cubic Feet	0	0	0	0.968	-	-	0.968	-	-	1.054	0	
23	All Over 1,500,000 Cubic Feet	0	0	0	0.608	-	-	0.608	-	-	0.693	0	
24	Lakeview Amount	208,691	616,803	211,194		624,526	211,553		625,491	211,553		664,374	
25													
26	Total Gross	4,698,115	12,059,012	4,777,047		12,254,035	4,785,139		12,273,123	4,786,139		14,251,710	
27	Less: Correction & Allowances	153,408	246,200	153,408		246,200	153,408		246,200	153,408		285,891	
28	Net Amount	4,544,707	11,812,812	4,623,639		12,007,835	4,631,731		12,026,923	4,631,731		13,965,819	
29	Net Amt. Per Revenue Summary	4,544,709	11,867,025	4,623,639		12,062,939	4,631,731		12,082,114	4,631,731		14,029,908	
30	Difference	(2)	{54,213}	0		{55,104}			{55,191}			{64,089}	
31	Percent Difference	0.0000%	-0.4568%	0.0000%		-0.4568%	0.0000%		-0.4568%	0.0000%		-0.4568%	



### Attrition Year Revenues at Current and Proposed Rates

Tennessee Public Service Commission  
Commercial Class  
Company : Tennessee-American Water Company  
Case No. :

Line No.		Per books			Normalized			Attrition Year at Present Rates			Attrition Year at Proposed Rates		
		Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues
1													
2													
3													
4													
5	Lakeview												
6	5/8 - inch meter	1,748	9.24	16,152	1,748	9.24	16,152	1,748	9.24	16,152	1,748	10.00	17,480
7	3/4 - inch meter	0	13.86	0	0	13.86	-	-	13.86	-	-	15.00	-
8	1 - inch meter	220	23.07	5,076	268	23.07	6,183	262	23.07	6,506	282	25.00	7,050
9	1 1/2 - inch meter	0	46.18	0	0	46.18	-	-	46.18	-	-	50.00	0
10	2 - inch meter	108	73.86	7,977	108	73.86	7,977	108	73.86	7,977	108	80.00	8,640
11	3 - inch meter	0	138.50	0	0	138.50	-	-	138.50	-	-	150.00	0
12	4 - inch meter	0	230.83	0	0	230.83	-	-	230.83	-	-	250.00	0
13	6 - inch meter	0	461.87	0	0	461.87	-	-	461.87	-	-	500.00	0
14	8 - inch meter	0	738.67	0	0	738.67	-	-	738.67	-	-	800.00	0
15	Total Meters	2,076		29,204	2,124		30,312	2,138		30,535	2,138		33,170
16													
17	Volumetric												
18	First 400 Cubic Feet	6,135	0.149	914	6,327	0.149	943	6,383	0.149	951	6,383	0.343	2,189
19	Next 6,100 Cubic Feet	18,598	3.085	57,375	19,337	3.085	59,655	19,553	3.085	60,321	19,553	2.897	58,600
20	Next 43,500 Cubic Feet	12,133	2.230	27,057	12,755	2.230	28,444	12,755	2.230	28,444	12,755	2.009	25,625
21	Next 450,000 Cubic Feet	3,414	1.189	4,059	3,414	1.189	4,059	3,414	1.189	4,059	3,414	1.424	4,962
22	Next 1,000,000 Cubic Feet	0	0.968	0	0	0.968	-	-	0.968	-	-	1.054	0
23	All Over 1,500,000 Cubic Feet	0	0.608	0	0	0.608	-	-	0.608	-	-	0.593	0
24	Lakeview Amount	40,260		119,609	41,833		123,413	42,105		124,410	42,105		124,446
25													
26	Total Gross	4,229,315		9,029,110	4,347,883		9,279,967	4,375,438		9,356,150	4,375,438		10,493,230
27	Less: Correction & Allowances	108,885		175,694	108,885		175,694	108,885		175,694	108,885		197,047
28	Net Amount	4,120,430		8,853,416	4,238,998		9,104,273	4,266,553		9,180,456	4,266,553		10,296,181
29	Net Amt. Per Revenue Summary	4,120,640		8,891,589	4,239,214		9,143,526	4,266,771		9,220,038	4,266,771		10,340,583
30	Difference	(210)		(38,173)	(216)		(39,253)	(218)		(39,562)	(218)		(44,392)
31	Percent Difference	-0.0051%		-0.4293%	-0.0051%		-0.4293%	-0.0051%		-0.4293%	-0.0051%		-0.4293%

### Attrition Year Revenues at Current and Proposed Rates

Line No.	Per books			Normalized			Attrition Year at Present Rates			Attrition Year at Proposed Rates		
	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Revenues	Rates	Billing Determinate	Revenues	Rates
1	318	8.26	\$2,627	318	8.26	\$2,627	318	\$2,627	8.26	318	\$2,627	10.00
2	36	13.86	499	36	13.86	499	36	499	13.86	36	499	15.00
3	354	23.07	8,167	354	23.07	8,167	354	8,167	23.07	354	8,167	25.00
4	72	46.18	3,325	72	46.18	3,325	72	3,325	46.18	72	3,325	50.00
5 Chattanooga	1,199	73.86	88,558	1,199	73.86	88,558	1,199	88,558	73.86	1,199	88,558	80.00
6	0	138.50	0	0	138.50	0	0	0	138.50	0	0	150.00
7	423	230.83	97,641	423	230.83	97,641	423	97,641	230.83	423	97,641	250.00
8	60	461.67	27,700	60	461.67	27,700	60	27,700	461.67	60	27,700	500.00
9	0	738.67	0	0	738.67	0	0	0	738.67	0	0	800.00
10	2,462		228,517	2,462		228,517	2,462	228,517		2,462	228,517	
11												
12												
13												
14												
15	Total Meters											
16												
17 Volumetric												
18 First	400 Cubic Feet	0.149	950	6,316	0.149	941	6,316	941	0.149	941	6,316	0.205
19 Next	6,100 Cubic Feet	2.436	162,320	66,021	2.436	160,827	66,021	160,827	2.436	160,827	66,021	2.729
20 Next	43,500 Cubic Feet	1.540	450,904	290,101	1.540	446,756	290,101	446,756	1.540	446,756	290,101	1.741
21 Next	450,000 Cubic Feet	1.139	1,334,438	1,160,806	1.139	1,322,158	1,160,806	1,322,158	1.139	1,322,158	1,160,806	1.286
22 Next	1,000,000 Cubic Feet	0.916	967,185	1,046,163	0.916	958,285	1,046,163	958,285	0.916	958,285	1,046,163	0.916
23 All Over	1,500,000 Cubic Feet	0.555	494,535	882,854	0.555	489,984	882,854	489,984	0.555	489,984	882,854	0.555
24 Chattanooga Amount			3,538,849	3,452,261		3,607,468	3,452,261	3,607,468		3,607,468	3,452,261	
25												
26 Lookout Mountain												
27 5/8 - Inch meter	0	9.24	0	0	9.24	0	0	0	9.24	0	0	10.00
28 3/4 - inch meter	0	13.86	0	0	13.86	0	0	0	13.86	0	0	15.00
29 1 - Inch meter	0	23.07	0	0	23.07	0	0	0	23.07	0	0	25.00
30 1 1/2 - Inch meter	0	46.18	0	0	46.18	0	0	0	46.18	0	0	50.00
31 2 - Inch meter	0	73.86	0	0	73.86	0	0	0	73.86	0	0	80.00
32 3 - Inch meter	0	138.50	0	0	138.50	0	0	0	138.50	0	0	150.00
33 4 - Inch meter	0	230.83	0	0	230.83	0	0	0	230.83	0	0	250.00
34 6 - Inch meter	0	461.67	0	0	461.67	0	0	0	461.67	0	0	500.00
35 8 - Inch meter	0	738.67	0	0	738.67	0	0	0	738.67	0	0	800.00
36 Total Meters	0	0	0	0	0	0	0	0	0	0	0	0
37												
38 Volumetric												
39 First	400 Cubic Feet	0.435	0	0	0.435	0	0	0	0.435	0	0	0.655
40 Next	6,100 Cubic Feet	3.372	0	0	3.372	0	0	0	3.372	0	0	3.486
41 Next	43,500 Cubic Feet	2.518	0	0	2.518	0	0	0	2.518	0	0	2.499
42 Next	450,000 Cubic Feet	1.476	0	0	1.476	0	0	0	1.476	0	0	1.736
43 Next	1,000,000 Cubic Feet	1.254	0	0	1.254	0	0	0	1.254	0	0	1.368
44 All Over	1,500,000 Cubic Feet	0.888	0	0	0.888	0	0	0	0.888	0	0	1.005
45 Lookout Mountain Amount	0	0	0	0	0	0	0	0	0	0	0	0
46												



Attrition Year Revenues at Current and Proposed Rates

Tennessee Public Service Commission  
Other Public Authority Class  
Company: Tennessee-American Water Company  
Case No.:

Line No.	Description	Per books			Normalized			Attrition Year at Present Rates			Attrition Year at Proposed Rates		
		Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues
1													
2													
3													
4													
5	Chattanooga												
6	5/8 - Inch meter	2,052	8.26	\$16,950	2,052	8.26	\$16,950	2,052	8.26	\$16,950	2,052	10.00	\$20,520
7	3/4 - Inch meter	132	13.86	1,830	132	13.86	1,830	132	13.86	1,830	132	15.00	1,980
8	1 - Inch meter	1,515	23.07	34,951	1,527	23.07	35,228	1,579	23.07	36,428	1,579	25.00	39,475
9	1 1/2 - Inch meter	682	46.18	31,495	682	46.18	31,495	682	46.18	31,495	682	50.00	34,100
10	2 - Inch meter	2,999	73.86	221,506	2,999	73.86	221,506	2,999	73.86	221,506	2,999	80.00	239,920
11	3 - Inch meter	66	138.50	9,141	66	138.50	9,141	66	138.50	9,141	66	150.00	9,900
12	4 - Inch meter	220	230.83	50,783	220	230.83	50,783	220	230.83	50,783	220	250.00	55,000
13	6 - Inch meter	12	461.67	5,540	12	461.67	5,540	12	461.67	5,540	12	500.00	6,000
14	8 - Inch meter	0	738.67	0	0	738.67	0	0	738.67	0	0	800.00	0
15	Total Meters	7,678		372,196	7,690		372,473	7,742		373,673	7,742		405,895
16													
17	Volumetric												
18	First 400 Cubic Feet	21,262	0.149	3,168	21,310	0.149	3,175	21,518	0.149	3,206	21,518	0.205	4,411
19	Next 6,100 Cubic Feet	177,571	2.436	432,563	178,303	2.436	434,346	187,653	2.436	457,123	187,653	2.729	512,105
20	Next 43,500 Cubic Feet	417,373	1.540	642,754	418,799	1.540	644,950	418,799	1.540	644,950	418,799	1.741	729,129
21	Next 450,000 Cubic Feet	672,707	1.139	766,213	672,707	1.139	766,213	672,707	1.139	766,213	672,707	1.286	865,101
22	Next 1,000,000 Cubic Feet	88,609	0.916	81,166	88,609	0.916	81,166	88,609	0.916	81,166	88,609	0.916	81,166
23	All Over 1,500,000 Cubic Feet	33,605	0.555	18,651	33,605	0.555	18,651	33,605	0.555	18,651	33,605	0.555	18,651
24	Chattanooga Amount	1,411,127		2,315,711	1,413,333		2,320,974	1,422,891		2,344,982	1,422,891		2,617,458
25													
26	Lockout Mountain												
27	5/8 - Inch meter	120	9.24	1,109	120	9.24	1,109	120	9.24	1,109	120	10.00	1,200
28	3/4 - Inch meter	0	13.86	0	0	13.86	0	0	13.86	0	0	15.00	0
29	1 - Inch meter	108	23.07	2,492	108	23.07	2,492	108	23.07	2,492	108	25.00	2,700
30	1 1/2 - Inch meter	12	46.18	554	12	46.18	554	12	46.18	554	12	50.00	600
31	2 - Inch meter	84	73.86	6,204	84	73.86	6,204	84	73.86	6,204	84	80.00	6,720
32	3 - Inch meter	0	138.50	0	0	138.50	0	0	138.50	0	0	150.00	0
33	4 - Inch meter	0	230.83	0	0	230.83	0	0	230.83	0	0	250.00	0
34	6 - Inch meter	0	461.67	0	0	461.67	0	0	461.67	0	0	500.00	0
35	8 - Inch meter	0	738.67	0	0	738.67	0	0	738.67	0	0	800.00	0
36	Total Meters	324		10,359	324		10,359	324		10,359	324		11,220
37													
38	Volumetric												
39	First 400 Cubic Feet	875	0.435	381	875	0.435	381	875	0.435	381	875	0.555	573
40	Next 6,100 Cubic Feet	6,172	3.372	20,812	6,172	3.372	20,812	6,172	3.372	20,812	6,172	3.486	21,516
41	Next 43,500 Cubic Feet	3,122	2.518	7,861	3,122	2.518	7,861	3,122	2.518	7,861	3,122	2.498	7,799
42	Next 450,000 Cubic Feet	0	1.476	0	0	1.476	0	0	1.476	0	0	1.736	0
43	Next 1,000,000 Cubic Feet	0	1.254	0	0	1.254	0	0	1.254	0	0	1.366	0
44	All Over 1,500,000 Cubic Feet	0	0.888	0	0	0.888	0	0	0.888	0	0	1.005	0
45	Lockout Mountain Amount	10,169		35,413	10,169		35,413	10,169		35,413	10,169		41,108



### Attrition Year Revenues at Current and Proposed Rates

Line No.	Per books				Normalized				Attrition Year at Present Rates				Attrition Year at Proposed Rates			
	Billing		Billing		Billing		Billing		Billing		Billing		Billing			
	Determine	Rate	Revenues	Determine	Rate	Revenues	Determine	Rate	Revenues	Determine	Rate	Revenues	Determine	Rate	Revenues	
1																
2																
3																
4																
5	Lakeview															
6	5/8 - inch meter	60	9.24	554	60	9.24	554	60	9.24	554	60	9.24	554	60	600	
7	3/4 - inch meter	0	13.86	0	0	13.86	-	0	13.86	-	0	13.86	-	0	0	
8	1 - inch meter	0	23.07	0	0	23.07	-	0	23.07	-	0	23.07	-	0	0	
9	1 1/2 - inch meter	0	46.18	0	0	46.18	-	0	46.18	-	0	46.18	-	0	0	
10	2 - inch meter	24	73.86	1,773	24	73.86	1,773	24	73.86	1,773	24	73.86	1,773	24	1,920	
11	3 - inch meter	0	138.50	0	0	138.50	-	0	138.50	-	0	138.50	-	0	0	
12	4 - inch meter	0	230.83	0	0	230.83	-	0	230.83	-	0	230.83	-	0	0	
13	6 - inch meter	0	461.67	0	0	461.67	-	0	461.67	-	0	461.67	-	0	0	
14	8 - inch meter	0	738.67	0	0	738.67	-	0	738.67	-	0	738.67	-	0	0	
15	Total Meters	84		2,327	84		2,327	84		2,327	84		2,327	84	2,520	
16																
17	Volumetric															
18	First 400 Cubic Feet	179	0.149	27	179	0.149	27	179	0.149	27	179	0.149	27	179	61	
19	Next 8,100 Cubic Feet	1,280	3.085	3,949	1,280	3.085	3,949	1,280	3.085	3,949	1,280	3.085	3,949	1,280	3,835	
20	Next 43,500 Cubic Feet	1,008	2.230	2,248	1,008	2.230	2,248	1,008	2.230	2,248	1,008	2.230	2,248	1,008	2,025	
21	Next 450,000 Cubic Feet	0	1.189	0	0	1.189	-	0	1.189	-	0	1.189	-	0	0	
22	Next 1,000,000 Cubic Feet	0	0.968	0	0	0.968	-	0	0.968	-	0	0.968	-	0	0	
23	All Over 1,500,000 Cubic Feet	0	0.608	0	0	0.608	-	0	0.608	-	0	0.608	-	0	0	
24	Lakeview Amount	2,467		8,551	2,467		8,551	2,467		8,551	2,467		8,551	2,467	8,442	
25																
26	Total Gross	1,423,763		2,364,875	1,423,763		2,368,938	1,435,527		2,392,946	1,435,527		2,392,946	1,435,527	2,667,009	
27	Less: Correction & Allowances	55,028		47,140	55,028		47,140	55,028		47,140	55,028		47,140	55,028	52,539	
28	Net Amount	1,368,735		2,317,735	1,370,941		2,321,798	1,380,499		2,346,806	1,380,499		2,346,806	1,380,499	2,614,469	
29	Net Amt. Per Revenue Summary	1,368,737		2,319,300	1,370,942		2,322,564	1,380,500		2,346,580	1,380,500		2,346,580	1,380,500	2,615,332	
30	Difference	(2)		(765)	-1		(766)	(1)		(774)	(1)		(774)	(1)	(863)	
31	Percent Difference	-0.0001%		-0.0330%	-0.0001%		-0.0330%	-0.0001%		-0.0330%	-0.0001%		-0.0330%	-0.0001%	-0.0330%	

Attrition Year Revenues at Current and Proposed Rates

Tennessee Public Service Commission  
 Other Water Utility Class  
 Company: Tennessee-American Water Company  
 Case No.:

Line No.	Description	Per books			Normalized			Attrition Year at Present Rates			Attrition Year at Proposed Rates		
		Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues
5	Chattanooga												
6	5/8 - inch meter	0	8.26	\$0	0	8.26	\$0	0	8.26	\$0	0	10.00	\$0
7	3/4 - inch meter	0	13.86	0	0	13.86	0	0	13.86	0	0	15.00	0
8	1 - inch meter	0	23.07	0	0	23.07	0	0	23.07	0	0	25.00	0
9	1 1/2 - inch meter	0	46.18	0	0	46.18	0	0	46.18	0	0	50.00	0
10	2 - inch meter	12	73.86	886	12	73.86	886	12	73.86	886	12	80.00	960
11	3 - inch meter	0	138.50	0	0	138.50	0	0	138.50	0	0	150.00	0
12	4 - inch meter	37	230.83	8,541	37	230.83	8,541	37	230.83	8,541	37	250.00	9,250
13	6 - inch meter	0	461.67	0	0	461.67	0	0	461.67	0	0	500.00	0
14	8 - inch meter	0	738.67	0	0	738.67	0	0	738.67	0	0	800.00	0
15	Total Meters	49		9,427	49		9,427	49		9,427	49		10,210
16	Volumetric												
17	First	27	0.149	4	27	0.149	4	27	0.149	4	27	0.205	6
18	Next	301	2.436	733	301	2.436	733	301	2.436	733	301	2.729	821
19	Next	43,500	1.694	2,609	43,500	1.694	2,609	43,500	1.694	2,609	43,500	1.741	2,949
20	Next	450,000	8.141	9,273	450,000	8.141	9,273	450,000	8.141	9,273	450,000	8.141	10,469
21	Next	1,000,000	1.621	1,485	1,000,000	1.621	1,485	1,000,000	1.621	1,485	1,000,000	1.621	1,485
22	All Over	1,169,734	0.713	833,435	1,169,734	0.713	833,435	1,169,734	0.713	833,435	1,169,734	0.713	833,435
23	Chattanooga Amount	1,181,518		856,966	1,181,518		856,966	1,181,518		856,966	1,181,518		856,966
24	Lookout Mountain												
25	5/8 - inch meter	0	9.24	0	0	9.24	0	0	9.24	0	0	10.00	0
26	3/4 - inch meter	0	13.86	0	0	13.86	0	0	13.86	0	0	15.00	0
27	1 - inch meter	0	23.07	0	0	23.07	0	0	23.07	0	0	25.00	0
28	1 1/2 - inch meter	0	46.18	0	0	46.18	0	0	46.18	0	0	50.00	0
29	2 - inch meter	0	73.86	0	0	73.86	0	0	73.86	0	0	80.00	0
30	3 - inch meter	0	138.50	0	0	138.50	0	0	138.50	0	0	150.00	0
31	4 - inch meter	0	230.83	0	0	230.83	0	0	230.83	0	0	250.00	0
32	6 - inch meter	0	461.67	0	0	461.67	0	0	461.67	0	0	500.00	0
33	8 - inch meter	0	738.67	0	0	738.67	0	0	738.67	0	0	800.00	0
34	Total Meters	0		0	0		0	0		0	0		0
35	Volumetric												
36	First	0	0.435	0	0	0.435	0	0	0.435	0	0	0.205	0
37	Next	0	3.372	0	0	3.372	0	0	3.372	0	0	2.729	0
38	Next	0	2.518	0	0	2.518	0	0	2.518	0	0	1.741	0
39	Next	0	1.476	0	0	1.476	0	0	1.476	0	0	1.288	0
40	Next	0	1.254	0	0	1.254	0	0	1.254	0	0	0.915	0
41	All Over	0	0.888	0	0	0.888	0	0	0.888	0	0	0.555	0
42	Lookout Mountain Amount	0		0	0		0	0		0	0		0

Line No.		Per books			Normalized			Attrition Year at Present Rates			Attrition Year at Proposed Rates		
		Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues
5	Lakeview												
6	5/8 - inch meter	0	9.24	0	0	9.24	-	-	9.24	-	-	10.00	0
7	3/4 - inch meter	0	13.86	0	0	13.86	-	-	13.86	-	-	15.00	0
8	1 - inch meter	0	23.07	0	0	23.07	-	-	23.07	-	-	25.00	0
9	1 1/2 - inch meter	0	46.18	0	0	46.18	-	-	46.18	-	-	50.00	0
10	2 - inch meter	0	73.86	0	0	73.86	-	-	73.86	-	-	80.00	0
11	3 - inch meter	0	138.50	0	0	138.50	-	-	138.50	-	-	150.00	0
12	4 - inch meter	0	230.83	0	0	230.83	-	-	230.83	-	-	250.00	0
13	6 - inch meter	0	461.67	0	0	461.67	-	-	461.67	-	-	500.00	0
14	8 - inch meter	0	738.67	0	0	738.67	-	-	738.67	-	-	800.00	0
15	Total Meters	0	0	0	0	0	-	-	0	-	-	0	0
16													
17	Volumetric												
18	First 400 Cubic Feet	0	0.149	0	0	0.149	-	-	0.149	-	-	0.343	0
19	Next 5,100 Cubic Feet	0	3.085	0	0	3.085	-	-	3.085	-	-	2.997	0
20	Next 43,500 Cubic Feet	0	2.230	0	0	2.230	-	-	2.230	-	-	2.009	0
21	Next 450,000 Cubic Feet	0	1.189	0	0	1.189	-	-	1.189	-	-	1.424	0
22	Next 1,000,000 Cubic Feet	0	0.968	0	0	0.968	-	-	0.968	-	-	1.054	0
23	All Over 1,500,000 Cubic Feet	0	0.608	0	0	0.608	-	-	0.608	-	-	0.693	0
24	Lakeview Amount	0	0	0	0	0	-	-	0	-	-	0	0
25													
26	Total Gross	1,181,518		855,966	1,181,518		855,966	1,181,518		855,966	1,181,518		988,631
27	Less: Correction & Allowances	455		748	455		748	455		748	455		853
28	Net Amount	1,181,063		855,218	1,181,063		855,218	1,181,063		855,218	1,181,063		987,769
29	Net Amt. Per Revenue Summary	1,181,065		855,966	1,181,065		855,966	1,181,065		855,966	1,181,065		987,478
30	Difference	(2)		252	(2)		252	(2)		252	(2)		292
31	Percent Difference	-0.0002%		0.0295%	-0.0002%		0.0295%	-0.0002%		0.0295%	-0.0002%		0.0295%

Attrition Year Revenues at Current and Proposed Rates

Tennessee Public Service Commission  
 Private and Public Fire  
 Company: Tennessee-American Water Company  
 Case No.:

Line No.	Class/Description	Normalized Year at Present Rates			Attrition Year at Present Rates			Attrition Year at Proposed Rates		
		Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues	Billing Determinate	Rates	Revenues
1	Private Fire Service									
1	1 - Inch Service	0	\$21.60	\$0	0	\$21.60	\$0	0	\$21.60	\$0
2	1 1/2 - Inch Service	1	48.72	49	1	48.72	49	1	48.72	49
3	2 - Inch Service	5	86.64	433	6	86.64	520	6	86.64	520
4	2 1/2 - Inch Service	1	132.12	132	1	132.12	132	1	132.12	132
5	3 - Inch Service	2	194.76	390	1	194.76	195	1	194.76	195
6	4 - Inch Service	69	390.00	26,910	73	390.00	28,470	73	390.00	28,470
7	6 - Inch Service	646	779.40	503,492	705	779.40	549,477	705	779.40	549,477
8	8 - Inch Service	275	1,560.12	429,033	287	1,560.12	447,754	287	1,560.12	447,754
9	10 - Inch Service	15	2,340.36	35,105	15	2,340.36	35,105	15	2,340.36	35,105
10	12 - Inch Service	17	3,120.72	53,052	18	3,120.72	56,173	18	3,120.72	56,173
11	Total Private Fire Service	1,031		1,048,595	1,107		1,117,875	1,107		1,117,875

21	Public Fire Service									
22	Ridgside	13	1,849.92	24,049	13	1,849.92	24,049	13	2,092.00	27,196
23	Public Fire	4,610	50.00	230,500	4,640	50.00	232,000	4,640	73.53	341,179
24	Total Public Fire Service	4,623		254,549	4,653		256,049	4,653		369,375
25	Total Private and Public Fire Service Revenues			\$1,303,145			\$1,373,924			\$1,486,250



**TENNESSEE-AMERICAN WATER COMPANY**

**CASE NO. 03-00118**

**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 COMPANY?**

**A. I am the Vice President and Treasurer/Comptroller.**

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

**A. 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 26 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**

1 Director - Budget Procedures, which position I held until April  
2 1981. At that time, I became Customer Service Superintendent at  
3 West Virginia-American Water Company. In December 1981, I  
4 became Assistant Director of Accounting for the Southern Region  
5 Service Company. I held that position until August 1991, when I  
6 became the Business Manager at West-Virginia American Water  
7 Company. On January 1, 1994, I was promoted to Vice President  
8 and Treasurer at West-Virginia American Water Company. On  
9 April 1, 2000, I became an employee of the Service Company as  
10 Vice-President and Treasurer for the Southeast Region  
11 Companies located in West Virginia, Kentucky, Tennessee,  
12 Virginia, and Maryland. In January of 2002 I was also named the  
13 Comptroller for each of the five Southeast Region Companies.  
14

15 4. Q. WHAT ARE YOUR RESPONSIBILITIES AS VICE  
16 PRESIDENT, TREASURER, AND COMPTROLLER?

17 A. I am responsible for overseeing the customer service, rates and  
18 revenue, business development, accounting, finance, budgets, and  
19 cash management functions for each of the operating Companies  
20 in the Southeast Region, including Tennessee-American Water  
21 Company.  
22

23 5. Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

24 A. I will address (i) the Company's proposed movement towards full

1 cost based rates, (ii) its proposed future ratemaking treatment  
2 regarding public fire service, (iii) capital structure and the overall  
3 cost of capital that includes the return on equity, which will be  
4 addressed by Mr. Moul, and (iv) the transition to the American  
5 Water Works national call center and shared services functions.

6  
7 6. Q. HAS THE COMPANY PREPARED A COST OF SERVICE  
8 STUDY AS PART OF THIS CASE?

9 A. Yes. Paul Herbert, the Company's witness, is sponsoring  
10 testimony that includes the results of that cost of service study and  
11 the Company's proposal to address the public fire protection fees  
12 in this case, as well as, a plan to address adjustments required  
13 between the other customer classifications to move towards full  
14 cost based rates over time.

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

18  
19 A. The Company is proposing to allocate the increased rates in this  
20 case in a manner that moves toward full cost based rates. The  
21 proposed rate design is described as follows:

22 1. Caps private fire rates at existing levels (0% increase).



- 1                   **2. Caps public fire protection rates at 25% of full cost of**  
2                   **service. This approach will be covered in more detail later**  
3                   **in this testimony and is consistent with the Pennsylvania**  
4                   **statute that provides, water utilities can recover their full**  
5                   **cost of service, however, public fire protection is capped at**  
6                   **25% of full cost of service and any revenue requirement**  
7                   **above the cap is allocated to all other volumetric water**  
8                   **customer classes. Moving the public fire service to the 25%**  
9                   **cap in this case increases current public fire service rates by**  
10                  **43.87%.**
- 11                  **3. Moves the industrial class to full cost of service in this case**  
12                  **(7.43% increase).**
- 13                  **4. Starts the commercial class toward cost based rates with the**  
14                  **proposed increase being approximately 2% less than the**  
15                  **overall increase to the remaining classes once the public and**  
16                  **private fire protection, and industrial allocations mentioned**  
17                  **above are removed from the overall revenue increase. This**  
18                  **is proposed to be the first allocation of a 10-year shift**  
19                  **toward full cost of service rates between the residential and**

1 commercial customer classes. The proposed increase to  
2 commercial customers is 12.15%.

3 5. Allocates to all other classes, including residential, the  
4 remaining revenue requirement deficiency with residential  
5 increasing 16.12%, OPA increasing 11.45%, and OWU  
6 increasing 15.36%, which would move these three customer  
7 classes towards full cost of service rates.

8 6. Proposes a 2% per year revenue neutral shift between the  
9 residential and commercial classes until such time  
10 (approximately 10 years) that full cost based rates are  
11 achieved.

12 Throughout this 10-year cost shifting period among the classes the  
13 annual revenue shifting outside a general rate filing will be  
14 revenue neutral to the Company. No additional revenue will be  
15 authorized except as may result from a future rate filing or as  
16 otherwise authorized in this case if the Company's request for a  
17 "Distribution System Replacement Surcharge" is approved by the  
18 TRA.

19 8. Q. DOES THE COMPANY'S PROPOSED TARIFF PRODUCE  
20 THE FULL COST OF SERVICE FOR PUBLIC FIRE

1 PROTECTION FROM THE PUBLIC FIRE SERVICE  
2 CUSTOMERS?

3 A. No.

4  
5 9. Q. ISN'T THAT INCONSISTENT WITH RATE TREATMENT  
6 REGARDING FIRE PROTECTION IN OTHER  
7 JURISDICTIONS?

8 A. No, on the contrary the Company is aware of many "cost based"  
9 jurisdictions that do not recover the full cost of service for public  
10 fire protection from public fire protection customers. The  
11 Company in this case is requesting the TRA to approve a method  
12 of addressing both the needs of the Company, its public fire  
13 service customers (including the City of Chattanooga), and its  
14 other ratepayers in a fair and equitable manner that is consistent  
15 with the policies or practices used in many other jurisdictions.  
16 We believe this method, if approved, will balance the interests of  
17 the City and its taxpayers, the Company and the Company's  
18 ratepayers.

19  
20 10. Q. WHY IS FIRE SERVICE SUCH A PROBLEM?

21 A. It is a problem for several reasons. First, fire protection is  
22 expensive. On a fully allocated cost of service basis, fire  
23 protection has the responsibility for many substantial costs such  
24 as large mains, pumps and storage tanks to meet the maximum

1 hour flows necessary in fire fighting. Second, the benefit of fire  
2 protection is really a benefit to the taxpayers and homeowners,  
3 but it is the City that pays the cost (albeit with revenues from the  
4 taxpayers), and many of the cities do not relate the benefit of fire  
5 protection to the impact it has on its budget. As a consequence  
6 cities and municipalities squeezed by these increases take a tough  
7 stand on fire protection fees from water utilities.

8  
9 11. Q. YOU SAID EARLIER THAT OTHER JURISDICTIONS HAVE  
10 CAPPED OR ELIMINATED PUBLIC FIRE SERVICE  
11 REVENUE SIMILAR TO THE COMPANY'S PROPOSAL IN  
12 THIS CASE. WOULD YOU DESCRIBE SOME OF THE  
13 ALTERNATIVES USED IN OTHER JURISDICTIONS?

14 A. Yes. Attached to this testimony is Exhibit MAM-1 that lists other  
15 jurisdictions where fire service charges have been frozen,  
16 eliminated, capped or otherwise treated in some manner different  
17 from "full cost of service recovery" for public fire service. As I  
18 have testified, cost of fire service has presented problems for  
19 many jurisdictions.

20  
21 In California, for instance, the Public Service Commission issued  
22 a general policy order that indicates there should be no public fire  
23 service fees. The policy basis for this decision is that public fire  
24 protection fees are paid by municipal governments who have no

1 revenue stream for this payment other than tax revenue. These  
2 tax revenues come from essentially the same customer base that  
3 pays the water rates. California has simply eliminated that class  
4 of customers and allocated that cost of service to the other  
5 classifications who ultimately are the beneficiaries of that fire  
6 protection service.

7  
8 In Missouri we are aware of two different methods, neither of  
9 which allocates any of the cost of fire protection to the  
10 municipalities. In Missouri-American (other than the former St.  
11 Louis County Water Co. properties) fire service is treated the  
12 same as California. There is no fire service class of customers,  
13 therefore that cost is absorbed by all classes of customers. In the  
14 former St. Louis County Water Company, the cost of public fire  
15 service is treated as a surcharge and billed on each customer's bill  
16 as a separate charge from the regular tariff. It is not charged to  
17 the municipalities.

18  
19 Illinois-American handles public fire service costs in the same  
20 manner as the former St. Louis County Water Co, a separate  
21 surcharge on each customer's bill.

22  
23 In an earlier rate case in West Virginia, the Public Service  
24 Commission in West Virginia Water Company, Case No. 80-457-

1           W-42T, did not eliminate the public fire service classification, but  
2           froze public fire protection rates at the 1981 level, and also held  
3           that in the future the Commission would spread any cost of  
4           service increase over that level to the other customer classes. The  
5           Commission's reasoning was essentially the same as in California  
6           -- any increases in public fire service rates would ultimately come  
7           in the form of increased taxes from the other customer  
8           classifications that pay for water service. The Commission elected  
9           to simply reallocate those costs to the other customer classes that  
10          ultimately benefit from that fire protection as part of the  
11          ratemaking process.

12  
13          Virginia-American Water Company does not have a public fire  
14          service customer class, and the public fire cost of service is built  
15          into all other customer classes base rates.

16  
17          The Wisconsin PSC established a policy on May 2, 1989 that  
18          outlines its position to permit Direct Customer Charges for Public  
19          Fire Protection in case 05-WI-100. This order, as well as,  
20          frequently asked questions on this topic can be found on the  
21          Public Service Commission of Wisconsin web page.

22  
23          The Iowa Utilities Board in Case No. RPU-90-5, established a  
24          mechanism whereby a municipality can petition the Board for

1 inclusion of all or a part of the costs of fire hydrants and other  
2 improvements, maintenance, and operations for the purpose of  
3 providing adequate water protection, storage and distribution for  
4 public fire protection in the rates and charges assessed to  
5 customers covered by the applicant's fire protection service. The  
6 Board approved the request of the City of Davenport for such  
7 treatment in this case.

8  
9 12. Q. WHAT APPROACH TO PUBLIC FIRE SERVICE IS THE  
10 COMPANY PROPOSING IN THIS CASE?

11 A. The Company proposes that the TRA approve a cap on public fire  
12 service revenues similar to the approach used in Pennsylvania as  
13 established in 66 Pa.C.S.A. § 1328 issued on June 30, 1995.

14  
15 13. Q. WHAT IS THAT PENNSYLVANIA APPROACH?

16 A. Attached as Exhibit MAM-2 to this testimony is a copy of  
17 Pennsylvania Statute 66 PA.C.S.A. § 1328. In summary, that  
18 statute provides that a public utility is permitted to include the  
19 full cost of public fire protection in its cost of service, but the  
20 revenue recovered from public fire service customers cannot  
21 exceed 25% of the full cost of service. Any public fire service cost  
22 of service above the 25% cap not recovered from the  
23 municipalities is recovered from all other classes of customers of  
24 the public utility and is included in the public utility's fixed or

1           **service charge, or minimum bill.**

2

3   **14. Q. IS THE COMPANY PROPOSING TO MOVE THE FEE**  
4           **IMMEDIATELY TO THE 25% LEVEL OF COST OF**  
5           **SERVICE IN THIS CASE?**

6           **A. Yes. The Company's proposed tariff would increase the rate per**  
7           **hydrant from the current \$50.00, as approved in case 99-00891, to**  
8           **approximately \$71.93 per hydrant.**

9

10   **15. Q. WHAT IS THE LEVEL OF PUBLIC FIRE SERVICE COST OF**  
11           **SERVICE THAT HAS BEEN ALLOCATED TO THE OTHER**  
12           **REVENUE CLASSIFICATIONS IN THIS CASE?**

13           **A. As indicated in Mr. Herbert's cost of service study, the Company**  
14           **has allocated \$1.105 million of the public fire service classification**  
15           **cost of service to the other customer classes who receive the**  
16           **benefit of that fire protection.**

17

18   **16. Q. WHY SHOULD THE AUTHORITY APPROVE THE**  
19           **ALLOCATION OF A PORTION OF THE PUBLIC FIRE**  
20           **SERVICE COST OF SERVICE TO THE OTHER CUSTOMER**  
21           **CLASSES AS PROPOSED BY THE COMPANY IN THIS**  
22           **CASE?**

23           **A. The Company's customers have benefited for over three years in**  
24           **the form of avoided tax increases or increased municipal services**



1 that have been provided by the reduced public fire service fees.  
2 The allocation of a portion of the public fire cost of service to  
3 other customer classes simply allocates those costs to the same  
4 customers who ultimately benefit from that fire protection  
5 service. That is consistent with the policy that has been followed  
6 in the other states I discussed earlier. The Company has been able  
7 to more than offset the reduction in public fire service revenue by  
8 revenue growth and productivity gains which are embedded in  
9 this case, and as a result the other customer classifications get the  
10 benefit of those cost of service savings in this case.

11  
12 In addition, the Company believes its proposal to cap public fire  
13 service fees at 25% of the full cost of service establishes a rate  
14 making methodology that balances the interests of the Company's  
15 ratepayers, the cities affected by the fire protection tariff, the  
16 taxpayers in those cities, and the Company. The adoption of the  
17 Company's proposal should eliminate a longstanding issue  
18 regarding public fire protection. This will hopefully eliminate  
19 costly litigation regarding this issue in the future because the  
20 municipalities (public fire service customers) served by the  
21 Company will know exactly how these rates are set and the  
22 treatment of fire protection going forward. The other customers,  
23 who ultimately benefit from the fire protection, will be treated  
24 fairly and in a manner consistent with the cost of service practices

1           used by many other rate making jurisdictions.

2  
3   17.   Q.   WHAT IS DRIVING THE NEED FOR A RATE CASE IF THE  
4           COMPANY HAS BEEN ABLE TO GENERATE REVENUE  
5           GROWTH AND PRODUCTIVITY GAINS TO OFFSET THE  
6           REDUCED PUBLIC FIRE REVENUE.

7           A.   The primary driver for the need to increase rates is the  
8           construction of additional rate base. This rate case includes  
9           \$11.184 million of rate base over the level currently embedded in  
10          rates. The Company has continued its investment in new plant  
11          required to meet current water quality regulations, replace aged  
12          infrastructure, and maintain reliable water service. The revenue  
13          requirement on the additional rate base, when grossed-up for  
14          income taxes, accounts for approximately \$1.328 million of the  
15          increase. The request to increase rates also includes \$1.237  
16          million for additional depreciation expense and \$.606 million of  
17          general taxes related to that rate base increase.

18  
19   18.   Q.   WHAT IS THE IMPACT ON CURRENT RATES FROM  
20          THESE THREE ITEMS RELATED TO INCREASED RATE  
21          BASE?

22          A.   They generate a revenue deficiency of approximately \$3.171  
23          million, or 82% of the revenue increase requested in this case.

1 19. Q. ARE THERE ALSO INCREASES IN OTHER EXPENSE  
2 ITEMS SINCE THE 1996 RATE CASE?

3 A. Yes. The Company has strived to control expenses and believes it  
4 has been successful. The average percentage increase for O&M  
5 expenses on a per customer basis is less than approximately 1.5%  
6 per year since the last rate increase, well below the rate of  
7 inflation. The following is a recap of the major increases in O&M  
8 expenses from those currently embedded in rates.

9 1. \$387,000 – The Company in the last rate case had no  
10 Pension expense embedded in rates due to the status of the  
11 actuarial analysis of the Plan at that time. The Company  
12 did not make a cash (ERISA) contribution to the Plan from  
13 1996 until July 2002. The Company is requesting the  
14 ERISA pension contribution for the attrition year based on  
15 the current actuarial evaluation.

16 2. \$275,000 – The Company has experienced group insurance  
17 premium increases for medical insurance that have  
18 exceeded inflation by a substantial amount. The substantial  
19 increase in medical costs has been well documented and has  
20 impacted most companies.

21 3. \$332,000 – The Company has experienced significant  
22 increases in insurance coverage rates, particularly after the  
23 events of September 11, 2001. Insurance costs have  
24 increased substantially in the post September 11 market.

1                   4. \$238,000 – The Company is requesting rate coverage for its  
2                   on-going increase in additional security expenses, as well as,  
3                   amortization of the security expenses deferred since  
4                   additional security measures were instituted post  
5                   September 11, 2001.

6                   5. \$160,000 - The Company has experienced a substantial  
7                   increase in its street opening permit fees.

8                   6. \$537,000 – Various other miscellaneous expense increases  
9                   primarily related to inflationary trends.

10  
11   20.   Q.   THE INCREASES INDICATED ABOVE FOR RATE BASE  
12           DRIVEN COST OF SERVICE ELEMENTS AND O&M  
13           EXPENSE INCREASES TOTAL SUBSTANTIALLY MORE  
14           THAN THE REVENUE INCREASE BEING REQUESTED IN  
15           THIS CASE. ARE THERE OTHER OFFSETS?

16           A.   Yes. The Company has been able to lower its cost of long-term  
17           debt by over 100 basis points, which equates to a substantial  
18           savings in interest expense. The Company has been very pleased  
19           with the results of its permanent financings and the results  
20           achieved under the arrangement the Company has with American  
21           Water Works Capital Corporation.

22  
23   21.   Q.   WHAT CAPITAL STRUCTURE DID THE COMPANY USE IN  
24           CALCULATING THE RATES IN THIS CASE?

1       **A.    The Company used a forecasted capital structure for the midpoint**  
2       **of the attrition year, September 30, 2003. The capital structure**  
3       **includes the permanent financing that will be consummated in**  
4       **2003 and the level of short-term debt that will be in place after the**  
5       **2003 permanent debt financing is completed. The proposed**  
6       **capital structure is included in the filing and is attached to this**  
7       **testimony as Exhibit MAM-3.**

8  
9       **22.   Q.   WHY IS THIS LEVEL OF SHORT-TERM DEBT**  
10       **APPROPRIATE FOR SETTING RATES IN THIS CASE?**

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

20  
21       **23.   Q.   HOW WERE THE WEIGHTED COSTS OF LONG-TERM**  
22       **DEBT AND PREFERRED STOCK DETERMINED?**

23       **A.    The face value of each issue was reduced by the unamortized**  
24       **issuance cost and the result was divided by the total capital to**

1 arrive at the percentage each series had to total capital. This  
2 result was then multiplied by the cost rate to arrive at the overall  
3 cost for both long-term debt and preferred stock.  
4

5 24. Q. HOW WAS THE COST RATE FOR SHORT-TERM DEBT  
6 DETERMINED?

7 A. The Company reviewed market forecasts to determine a cost rate  
8 for short-term debt that will likely be in place during the rate  
9 year.  
10

11 25. Q. IN WHAT MANNER IS THE COMPANY CURRENTLY  
12 OBTAINING ITS LONG-TERM AND SHORT-TERM DEBT?

13 A. The Company is currently utilizing the services of American  
14 Water Capital Corp. (AWCC) to place its required financing  
15 needs. AWCC is an American Water Works Company affiliate  
16 and was created to consolidate the financing activities of the  
17 operating subsidiaries to effect economies of scale on debt  
18 issuance and legal costs, to attract lower debt interest rates  
19 through larger debt issues in the public market, and to use the  
20 commercial paper market for short-term debt. The Company  
21 believes the use of AWCC will attract capital at lower interest  
22 rates and result in lower issuance and transaction costs because of  
23 the size and resources of the entire American System.  
24

1 26. Q. HAS THE COMMISSION APPROVED PLACING THE  
2 COMPANY'S FINANCING NEEDS WITH AWCC?

3 A. Yes. By Order entered October 10, 2000 in Case No. 00-00637, the  
4 Commission authorized the Company to enter into a Financial  
5 Services Agreement with AWCC to issue up to \$30,100,000 of debt  
6 obligations.

7  
8 27. Q. HAS THE COMPANY BEEN PLEASED WITH THE RESULTS  
9 THUS FAR?

10 A. Yes. The Company and its customers have benefited from the  
11 interest savings resulting from pooling the capital requirements of  
12 the American System subsidiaries. The long-term debt issue  
13 placed in 2001 resulted in cost rates and issuance costs less than  
14 the Company could have obtained on a stand-alone basis in the  
15 private placement market that it historically used. In addition,  
16 the pooling and bidding of the credit lines for short-term debt has  
17 lowered the cost for short-term debt and the use of the  
18 commercial paper market has paid further dividends.

19  
20 28. Q. WHAT FACTORS REQUIRE THE COMPANY TO SEEK  
21 ADDITIONAL CAPITAL?

22 A. The Company has documented in past rate cases and in this filing  
23 that capital improvements it has made in order to meet the new  
24 and changing regulations in the water industry, replace aged

1 treatment and distribution facilities, and provide quality, reliable  
2 water service to its customers have driven and will continue to  
3 drive the need for new capital. In addition, the Company will be  
4 required to replace several maturing debt series in the next five  
5 years. It is important that the Company maintain a strong  
6 financial position to attract this capital at the lowest possible price  
7 in order to provide those service improvements at the least  
8 possible cost to its customers.

9  
10 **29. Q. WHAT IS THE OVERALL COST OF CAPITAL REQUESTED**  
11 **IN THIS CASE AND HOW DOES IT COMPARE TO THAT**  
12 **CURRENTLY APPROVED IN RATES?**

13 **A. The overall weighted cost of capital being requested is 8.56%.**  
14 **The overall cost of capital on which current rates are based is**  
15 **9.47%. The reduction results from the favorable results of the**  
16 **permanent debt financings completed since the previous rate case,**  
17 **current short-term market rates, and the ROE requested in this**  
18 **case. Also, the reduction is influenced by the current ratios of the**  
19 **components of the capital structure.**

20  
21 **30. Q. HAVE YOU REVIEWED THE TESTIMONY OF COMPANY**  
22 **WITNESS MOUL IN THIS CASE REGARDING COST OF**  
23 **EQUITY?**

24 **A. Yes. Mr. Moul recommends a return on equity in a range of**



1           10.90% - 13.29% based on a number of indices and methods, and  
2           indicates that the 11.00% return on equity requested by the  
3           Company in this case is justified and reasonable for the Company  
4           on a stand alone basis, based on the data he has examined.  
5

6   31.   Q.   DO YOU CONCUR WITH MR. MOUL'S CONCLUSIONS?

7           A.   Yes I do. The Company elected to use an 11.00% ROE, which is  
8           in Mr. Moul's range as a justified and reasonable request for  
9           ROE for the rates to be established in this case.  
10

11   32.   Q.   THE COMPANY'S CALL CENTER AND BILLING  
12           FUNCTIONS WILL BE MOVED TO ALTON, ILLINOIS AS  
13           PART OF AWW'S CONSOLIDATED CALL CENTER.  
14           PLEASE DESCRIBE THIS MOVE AND ITS PURPOSE.

15           A.   The Company and the other American Water System operating  
16           companies are striving to provide customer service that will be  
17           more responsive, provide increased customer service options,  
18           improve customer satisfaction, and effect cost savings wherever  
19           possible. As with many other utility systems, we are moving to a  
20           consolidated call center ("Call Center"). Beginning in July 2003,  
21           the customer inquiry and billing functions for the Company will  
22           be performed at the Call Center in Alton, Illinois. The first  
23           companies to move to this shared services format were New  
24           Jersey-American and Long Island Water Company in April, 2001,

1 West Virginia-American in May, 2001, Pennsylvania-American in  
2 July, 2001, and Missouri-American in November, 2001, and  
3 Illinois-American in June 2002.

4  
5 The American System has as one of its primary goals to provide  
6 customer service unsurpassed in the water industry. At the same  
7 time, we hope to provide that service at the lowest reasonable cost.  
8 The Call Center will help us meet both of these important goals.

9  
10 33. Q. HOW DOES THE COMPANY AND THE OTHER AMERICAN  
11 SUBSIDIARIES CURRENTLY OPERATE THE CUSTOMER  
12 SERVICE AND BILLING FUNCTIONS?

13 A. The Company and the other subsidiaries not yet a part of the Call  
14 Center currently operate independent call centers and billing  
15 functions in their respective service territories.

16  
17 34. Q. WHY IS THIS A PROBLEM AND HOW WILL THE  
18 CONSOLIDATION IMPROVE SERVICE?

19 A. Although the Company currently provides acceptable customer  
20 service, there are limitations on that service because of the size of  
21 the Company. The current customer service function is operated  
22 five days a week from 8:00 a.m. to 4:30 p.m. The Company  
23 provides only emergency coverage after normal working hours  
24 and on weekends. In today's business environment, customers

1 demand more in the way of service availability and increased  
2 functionality. The American System has historically maintained a  
3 common customer service and billing software platform; however,  
4 programming has been handled either locally or regionally. This  
5 has led to numerous versions of the common software platform,  
6 and has been a problem when multi-state acquisitions or software  
7 upgrades have been required. In essence, multiple conversions  
8 have been required to facilitate the various software versions.  
9 This has cost time and money for the subsidiaries. In short, it has  
10 limited our ability to take full advantage of the economies of scale  
11 available to the American System.

12  
13 The Call Center will be operated on the ORCOM customer  
14 service and billing software. The software program will be  
15 uniform for all subsidiaries, and this will make future software  
16 migrations and acquisition integration projects easier to  
17 accomplish and less costly.

18 In addition to the software improvements, the Call Center will  
19 provide full customer service on a twenty-four hour, seven day a  
20 week basis. There will also be enhancements for automated call  
21 answering, automated payment options, communications with  
22 field operations, and bill editing processes through significant  
23 improvements in the various technologies employed. The  
24 individual operating companies could not provide this enhanced

1 service on a cost-effective basis. The Call Center will increase the  
2 availability of full service to the customers on an around-the-clock  
3 basis, and provide the additional services that our customers  
4 demand in today's environment.  
5

6 35. Q. DOES THIS MEAN THAT THE COMPANY WILL HAVE NO  
7 LOCAL PRESENCE FOR CUSTOMER SERVICE?

8 A. No. The Company will still have its Corporate Office in  
9 Chattanooga. There will still be a clerical staff to coordinate  
10 billing and collections for the entities for which we perform this  
11 function. We will still provide customer contact as required,  
12 resolve customer issues relayed from Alton, and respond to  
13 Commission inquiries. In addition, the field personnel will  
14 continue to be available to address the needs of our customers.  
15 The local payment locations will remain unchanged. This  
16 transition should be transparent to the customers.  
17

18 36. Q. DOES THE CASE AS FILED INCLUDE THE COST  
19 PROJECTIONS FOR THE CALL CENTER, AND  
20 ADJUSTMENTS TO THE TEST YEAR EXPENSES?

21 A. Yes. The attrition year includes the cost of the National Call  
22 Center since the Company will make that transition in the second  
23 quarter of 2003.  
24

1   **37. Q.   WOULD YOU PLEASE DESCRIBE THE IMPACT OF THE**  
2                   **MOVE TO THE NATIONAL CALL CENTER?**

3           **A.   Yes. Attached to this testimony is Exhibit MAM-4 which provides**  
4                   **the detail of the cost to make the transition and its impact. The**  
5                   **schedule indicates an annual savings of \$744,032 from the**  
6                   **elimination of 11 employees' salaries and payroll related**  
7                   **overhead, elimination of temporary positions, and reduction in**  
8                   **various miscellaneous expenses. The Company's forecasted cost**  
9                   **for the service provided by the Call Center is \$616,858. This cost**  
10                  **is allocated to the Company based on its number of customers to**  
11                  **the total customer base served by the Center. These business**  
12                  **case estimates have been very close to the actual cost for the**  
13                  **companies already served by the Center.**

14  
15   **38. Q.   YOU ALSO INCLUDE TRANSITION COSTS FOR THE MOVE**  
16                   **TO THE CALL CENTER. PLEASE DESCRIBE WHAT**  
17                   **MAKES UP THESE COSTS AND THE RATE TREATMENT**  
18                   **THE COMPANY IS REQUESTING IN THIS CASE.**

19           **A.   As with any project of this type, there are costs required to make**  
20                   **the transition possible and to make it go smoothly. The**  
21                   **Company's allocated portion of these one-time costs is \$872,617.**  
22                   **Those costs are made up of severance costs, moving costs for those**  
23                   **associates electing to relocate to Alton, consulting costs to set up**  
24                   **the processes and training, and in-house costs charged for setup**

1           and training.

2  
3           The Company requests that the Commission recognize the  
4           \$872,617 as a necessary cost of making the transition and afford  
5           regulatory asset status for those costs. The Company requests  
6           also that those costs be amortized over a ten-year period starting  
7           with July 2003, and be included in the new rates recognized in this  
8           case, with the unamortized amount included as rate base.

9  
10   39.   Q.   ARE THERE ADDITIONAL SAVINGS THAT WERE PART  
11           OF THE AWW BUSINESS CASE FOR THE CALL CENTER  
12           ALREADY BUILT INTO THE TEST YEAR EXPENSES?

13       A.   Yes. AWW bid its lockbox service on a national basis in late 2000.  
14           The low bidder for all Southeast Region Companies was BB&T.  
15           The move to BB&T has resulted in a net savings of approximately  
16           \$89,000 annually that has already been reflected in the test year  
17           expenses.

18  
19   40.   Q.   WHY SHOULD THE COMMISSION APPROVE THE RATE  
20           MAKING TREATMENT REQUESTED FOR THE CALL  
21           CENTER?

22       A.   Tennessee-American is a relatively small company and simply  
23           does not have the customer base to provide the level of service  
24           that will be provided by the Consolidated Call Center on a stand-

1 alone basis. The level of service provided to the customers will be  
2 increased and this will be accomplished at a savings to the  
3 ratepayers. The availability of full customer service functions on  
4 a 24/7 basis and technological enhancements to benefit customer  
5 contact, payment options, and other customer contact functions  
6 are what the Company believes the customers demand and expect.  
7

8 41. Q. THE COMPANY MOVED ITS TRANSACTIONAL  
9 ACCOUNTING FUNCTIONS TO THE NATIONAL SHARED  
10 SERVICES CENTER LOCATED IN MARLTON, NEW  
11 JERSEY EFFECTIVE NOVEMBER, 2001. PLEASE  
12 DESCRIBE THIS MOVE AND ITS PURPOSE?

13 A. In 1999 and 2000 AWW undertook a review of its accounting  
14 functions to determine how it could improve its transactional  
15 accounting functions, take advantage of economies of scale where  
16 possible, and improve the uniformity of its software applications  
17 at the various operating subsidiaries. The Company had  
18 previously installed JD Edwards accounting software, but like its  
19 customer accounting and billing functions, local and regional MIS  
20 and programming had, in essence, created several different  
21 versions of the software. This created difficulties with  
22 consolidated accounting and multi-jurisdictional acquisition  
23 integrations. AWW determined that there were economies of  
24 scale savings, and operational efficiencies to be derived from

1 providing transactional accounting functions on a national level  
2 and decided to move these functions to a Shared Services Center.  
3 Prior to this transition, the accounting, budgets, and finance  
4 functions were being performed by the Tennessee-American  
5 employees and the Region Service Companies in Marlton, NJ, and  
6 Charleston, WV.

7  
8 42. Q. HOW WILL THESE AREAS FUNCTION GOING FORWARD?

9 A. Transactional accounting (general accounting, payroll, AP,  
10 inventory, purchasing, AR, etc.), and actual historical information  
11 for budgets and rate cases will be provided by the Shared Services  
12 Center utilizing a uniform JD Edwards software platform.  
13 Review and approval of the financial statements, rate case  
14 adjustments and budget forecasting, and Board Meeting  
15 information and presentations will be the responsibility of the  
16 Vice-President and Treasurer/Comptroller and a minimal staff  
17 located at the Southeast Service Company office, and two  
18 employees at Tennessee-American

19  
20 43. Q. DOES THE CASE AS FILED INCLUDE THE COST  
21 PROJECTIONS FOR THE SHARED SERVICES CENTER,  
22 AND ADJUSTMENTS TO THE ATTRITION YEAR  
23 EXPENSES?

24 A. Yes. Attached to this testimony is Exhibit MAM-4 that indicates



1 the annual impact of the transition to the Shared Service Center.

2  
3 44. Q. WOULD YOU PLEASE DESCRIBE THE INFORMATION  
4 CONTAINED IN EXHIBIT MAM-4?

5 A. This exhibit indicates a reduction in expenses of \$573,842  
6 comprised of the elimination of 4 employees, and the Marlton, NJ,  
7 Regional Service Company charges for accounting. The exhibit  
8 also indicates the forecasted expenses from the Shared Services  
9 Center of \$338,526, and the accounting cost from the Southeast  
10 Region of \$111,349. This calculation produces an annual savings  
11 of \$88,049.

12  
13 45. Q. YOU ALSO INCLUDE TRANSITION COSTS FOR THE MOVE  
14 TO THE SHARED SERVICES CENTER. PLEASE DESCRIBE  
15 WHAT MAKES UP THESE COSTS AND THE RATE  
16 TREATMENT THE COMPANY IS REQUESTING IN THIS  
17 CASE?

18 A. There are costs required to make the transition go smoothly. The  
19 Company's allocated portion of these one-time costs is \$359,480.  
20 These costs are made up of severance costs, moving costs for those  
21 associates electing to move to the Shared Services Center,  
22 consulting costs to set-up the processes and training, and in-house  
23 costs charged to set-up and training.

1           The Company is requesting that the Commission recognize the  
2           \$359,480 as a necessary cost of making the transition and afford  
3           regulatory asset status for these costs. The Company is  
4           requesting that these costs be amortized over a ten-year period  
5           starting when the new rates become effective, with the  
6           unamortized amounts included in rate base.

7  
8   46.   Q.   WHY SHOULD THE COMMISSION APPROVE THE RATE  
9           MAKING TREATMENT REQUESTED FOR THE SHARED  
10          SERVICE CENTER?

11       A.   The transition to the Shared Service Center provides increased  
12           functionality and economies of scale of the accounting functions of  
13           the Company. Moving the accounting software to a uniform  
14           platform will save the Company money on future software  
15           migrations, rate case and budget preparation, and acquisition  
16           integrations. The Company will receive these benefits at a  
17           reduced cost to the ratepayers.

18  
19   47.   Q.   DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

20       A.   Yes.

**TENNESSEE REGULATORY AUTHORITY**

**STATE OF TENNESSEE**

**COUNTY OF HAMILTON**

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Michael A. Miller who, 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 twenty-nine pages.

Michael A. Miller

Sworn to and subscribed before me  
this 3<sup>rd</sup> day of February 2003.

Virginia B. Seale  
Notary Public

My commission expires April 7, 2004.

## **Exhibit MAM-1**

### **Tennessee-American Water Company Other Regulatory Jurisdictions That Do Not Use Full Cost of Service for Public Fire Service**

1. California – Eliminated the Public Fire Service Customer Classification by legislation in 1979 under chapter 862-Section 2713. Public fire service is absorbed by the other classes of customers.
2. Missouri-American (other than former St. Louis County Water Co.) – Like California they have no public fire service class of customers. Other classes of customers absorb public fire service.
3. Missouri-American (other than former St. Louis County Water Co.) – Breaks out public fire service as a surcharge billed to each customer – not billed to municipalities.
4. Illinois-American – separate surcharge for fire protection like Missouri-American, St. Louis County.
5. West Virginia-American – In West Virginia Water Case No. 80-457-W-42T, the Commission froze the public fire service rates and allocates the cost of service over the level frozen in 1981 to the other classes of customers.
6. Pennsylvania – Commission enacted Pa. C.S.A. subsection 1328. The rule limits the cost recovery of public fire fees to 25% of the total cost of service for the public fire service customers. Any cost of service above the 25% cap for public fire service is allocated to the service charge or minimum bill of all other classes of customers.

## RATES AND RATE MAKING

## 66 Pa.C.S.A. § 1328

## § 1328. Determination of public fire hydrant rates

(a) **General rule.**—A public utility that furnishes water to or for the public shall be allowed to recover in rates the full cost of service related to public fire hydrants.

(b) **Charge to municipalities and other customers of the public utility.**—

(1) In determining the rates to be charged for public fire hydrants by a public utility that furnishes water to or for the public, the commission shall as part of a utility's general rate proceeding provide for the recovery of the costs of public fire hydrants in such a manner that the municipalities in which those public fire hydrants are located are not charged for more than 25% of the cost of service for those public fire hydrants, as such cost of service is reasonably determined by the commission.

(2) The commission shall also as part of the utility's general rate proceeding provide for the recovery of the remaining cost of service for those public fire hydrants not recovered from the municipalities under paragraph (1) by assessing all customers of the public utility the remaining cost of service to the public fire hydrants. The remaining cost of service for those public fire hydrants shall be included in the public utility's fixed or service charge or minimum bill.

(c) **Effect on current rates.**—The legal rates charged to municipalities for public fire hydrants in effect on the effective date of this section shall remain frozen and shall not be changed until the present rates for those public fire hydrants are determined to be below the 25% ceiling established under subsection (b). The remaining cost of service for those public fire hydrants not recovered from the municipality shall be recovered from all customers of the public utility in the public utility's fixed or service charge or minimum bill.

(d) **Definition.**—As used in this section, the term "public fire hydrant" means a fire hydrant that is charged, at least in part, to a municipality such as a city, borough, town or township.

1995, June 30, P.L. 165, No. 23, § 1, effective in 60 days.

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

Tennessee Public Service Commission  
 Company: Tennessee-American Water Company  
 Case No:

Test Year: Twelve Months Ended: July 31, 2002  
 Exhibit No. 3, Schedule 1  
 Page 1 of 1

Line No.	<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	\$44,145,309	50.02%	7.24%	3.621%
4						
5	Short-term Debt		5,429,000	6.15%	3.50%	0.215%
6						
7	Preferred Equity	Schedule 3	1,450,296	1.64%	5.01%	0.082%
8						
9	Common Equity					
10	Common Stock		19,106,970	21.65%	11.00%	2.381%
11	Retained Earnings		18,131,227	20.54%	11.00%	2.260%
12						
13	Total Capitalization		<u>88,262,802</u>	<u>100.00%</u>		<u>8.559%</u>
14						

**TENNESSEE-AMERICAN WATER COMPANY  
COMPARISON OF ANNUAL COST FOR THE CONVERSION  
TO A CONSOLIDATED CALL CENTER AND "SHARED SERVICES" CENTER**

**CONSOLIDATED TELEPHONE CALL CENTER ("CTC")**

Forecasted annual cost for operating the CTC	\$616,858	
Plus Amortization of the transition cost      \$872,617 / 10 years =	87,262	
Total Cost for CTC		<u>\$704,120</u>
 To reflect the elimination of 12 positions Plus overhead at TAWC	(662,609)	
To eliminate temporary positions	(51,057)	
To eliminate various O & M expenses-base year 12 months ended July 31, 2002	(34,976)	
Total Cost eliminated		<u>(748,642)</u>
 Annual cost (savings) due to conversion to consolidated call center		<u><u>(\$44,522)</u></u>

**SHARED SERVICES CENTER ("SS")**

Forecasted TAWC annual cost from the SS	\$338,526	
Plus Amortization of the transition cost      \$359,480 / 10 years =	35,948	
Forecasted TAWC annual finance department cost from the Southeast Region	111,359	
Total cost for SS and finance function		<u>485,833</u>
 To reflect the elimination of 4 positions Plus overhead at TAWC	(264,057)	
To eliminate regional accounting functions - Marlton office	(372,246)	
Total Cost eliminated		<u>(636,303)</u>
 Annual cost (savings) due to conversion to consolidated shared services center		<u><u>(\$150,470)</u></u>

**From:** Suzanne Linden  
**To:** Peacock, Jennifer  
**Date:** 4/5/2007 3:13:36 PM  
**Subject:** Re: Asurion Corp (CAFA)

DCA has no complaints against either Lock/Line company. DCA has 21 complaints against Asurion, Asurion Insurance, Asurion Insurance Service, Asurion Insurance Services, and Asurion Insurance Services, Inc. Do you want me to request copies? The complaints include not honoring warranty, denying claim, refund issues, breached contract, unwanted warranty, and others.

Sentinel has no TN consumer complaints against either Lock/Line company you listed. Sentinel had 6 consumer complaints nationwide against Asurion in the last 3 years. I checked nationwide since Asurion is a Nashville company. None of these sentinel complaints against Asurion are from TN consumers.

The BBB has a listing for Asurion Insurance Services, Inc. in Nashville, TN. The Bureau's information on this company is being updated and no report is available at this time. There is a listing for Asurion Protection Services, LLC with a Kansas City, MO address. This company has additional dba's of Asurion Protection Services Insurance Agency, LLC and lockline. The BBB has received 186 complaints against them in the last 3 years. The BBB has a listing for Lock/Line LLC out of Dallas. They have 7 complaints in the last 3 years and an unsatisfactory rating. I don't see a listing for Lock/Line Warranty Services.

>>> Jennifer Peacock 4/5/2007 2:53 PM >>>

yes, both please. thanks. For this same CAFA, can you also check for complaints for Lock/Line LLC or Lock/Line Warranty Services LLC out of Florida.

>>> Suzanne Linden 4/5/2007 2:51 PM >>>

<http://www.asurion.com/aboutus/aboutus.html> , Asurion Corp would also include complaints against Asurion Insurance, right?

>>> Jennifer Peacock 3/30/2007 1:21 PM >>>

Hi -

Will you please check for complaints from DCA, BBB and Sentinel for Asurion Corporation?

Thanks.



1                   TENNESSEE-AMERICAN WATER COMPANY  
2                   CASE NO. 03-00118  
3                   REBUTTAL TESTIMONY  
4                   MICHAEL A. MILLER  
5  
6

7   1.   Q.   DID YOU PROVIDE DIRECT TESTIMONY IN THIS CASE?

8           A.   Yes.

9   2.   Q.   WHAT AREAS WILL YOU BE ADDRESSING IN YOUR  
10           REBUTTAL TESTIMONY?

11          A.   I will primarily address testimony about the public fire service  
12           issue of several witnesses for the AG, the City and CMA. I will  
13           also address the testimony of the intervenors regarding capital  
14           structure, cost of debt and cost of equity.

15   3.   Q.   MR. MILLER, WOULD YOU AGREE THAT THERE MIGHT  
16           BE SOME UNCERTAINTY AND CONFUSION CREATED BY  
17           THE TRA'S ORDER OF SEPTEMBER 26, 2000, APPROVING  
18           THE PUBLIC FIRE SERVICE REDUCTION?

19          A.   Yes, I agree that there is language in the Order which might cause  
20           confusion, but I believe that the position that we have taken in this  
21           case is consistent with the logical interpretation of the Order.

22   4.   Q.   WHAT MADE THE COMPANY BELIEVE THAT THE  
23           ORDER WAS CONSISTENT WITH THE INTENTIONS OF  
24           THE CITY AND THE COMPANY?

25          A.   I believe my testimony will clarify the Company's position  
26           regarding the correct interpretation of the Order. Basically, the

1 Company understood that it would have to generate revenue  
2 growth and expense savings ("Growth/Savings") to offset the  
3 reduced fire protection revenue, but because the rate reduction  
4 was phased over two years, the Company felt confident it could do  
5 that. The Company also understood that if it did not generate  
6 those Growth/Savings it would absorb the earnings impact of that  
7 reduction. Based on its financial projections at that time, the  
8 Company believed it would be three or four years before it would  
9 be required to seek rate relief. Unfortunately, several recent  
10 developments such as the bankruptcy of North American  
11 Royalties, increased property tax assessments, and the need for  
12 earlier pension contributions have accelerated that need for rate  
13 relief. While the Company felt the language of the Order was  
14 troublesome, it believed based on both parties' representations  
15 and the language of the Order that this issue would be correctly  
16 interpreted in a rate case three or four years in the future.

17 5. Q. IS THE COMPANY'S POSITION ON PUBLIC FIRE SERVICE  
18 IN THIS CASE CONSISTENT WITH THE ORDER?

19 A. Yes. We do not believe that the TRA meant that the Company  
20 and its stockholders would be required to bear the cost of  
21 providing fire protection through both Growth/Savings  
22 permanently flowed to the rate payers in this case and as an  
23 additional reduction from the Company's established revenue

1 requirement.

2 6. Q. THE AG AND OTHER INTERVENORS INSIST THAT THE  
3 ORDER CANNOT BE SATISFIED IN ANY WAY OTHER  
4 THAN BY A PERMANENT REDUCTION OF THE  
5 COMPANY'S APPROVED COST OF SERVICE. WHY DO  
6 YOU THINK THEY ARE WRONG?

7 A. I believe the last sentence before the ordering paragraph is critical  
8 to arriving at a correct interpretation of that Order. That  
9 sentence says, "Therefore given the facts in this instance, as  
10 discussed above, the Authority, consistent with the Company's  
11 representations, does not deem it appropriate that this voluntary  
12 contribution loss be recoverable from the ratepayers." It is  
13 critical to review and understand what the Company represented  
14 to the TRA in its filing, discovery, and comments at the hearing  
15 on January 11, 2000. I do not believe that a logical interpretation  
16 of the Order can be made without considering what the Company  
17 represented to the TRA, particularly the comments at the  
18 hearing.

19 7. Q. DOES THE TESTIMONY OF DR. BROWN OR THE OTHER  
20 INTERVENORS MENTION THIS SENTENCE OF THE  
21 ORDER?

22 A. No. I see no mention of that language in other testimony.

23 8. Q. ARE THERE OTHER PARTS OF THE ORDER THAT

1                   SUPPORT THE COMPANY'S POSITION?

2           A.    Yes. On pages 2-3 of the Order the TRA held, "It is clear that in  
3                   order to afford the Company any opportunity to achieve its  
4                   presently authorized return that either revenue streams from  
5                   other sources must be increased or the company and its  
6                   stockholders must agree to absorb the shortfall."

7    9.   Q.    WHAT IS THE SIGNIFICANCE OF THAT STATEMENT?

8           A.    It demonstrates that the TRA recognized that Growth/Savings  
9                   presented the Company's only offset to the reduced fire service  
10                  revenue. More importantly it is written in the alternative and  
11                  says, "or the Company and its stockholders must agree to absorb  
12                  the shortfall." This indicates to us that the Company had to do  
13                  one or the other, but not both. It certainly does not indicate a  
14                  permanent annual reduction in the Company's revenue  
15                  requirement as established in this or future rate cases. We  
16                  believed then and believe now that if the Company did not  
17                  generate Growth/Savings at or above the amount of reduced fire  
18                  protection revenue, the stockholders would absorb that shortfall  
19                  (the difference). The Company believed this applied to the period  
20                  between the dates of the Order and until other factors drove the  
21                  need to increase rates ("stub period"). The Company understood  
22                  that if it could not demonstrate that Growth/Savings exceeded the  
23                  reduced fire protection revenue it was at risk for rate recovery of

1            that shortfall (difference), not the full amount of the fire  
2            protection revenue reduction and certainly not forever after.

3    10.    Q.    DID THE COMPANY GENERATE GROWTH/SAVINGS IN  
4            EXCESS OF THE FIRE PROTECTION REVENUE  
5            REDUCTION?

6            A.    Yes, and those Growth/Savings are embedded in the Company's  
7            cost of service in this rate case. I will address those  
8            Growth/Savings later in this testimony.

9    11.    Q.    DOES THE ORDER SUPPORT THE EXTRAORDINARY  
10            POSITION OF THE AG THAT THE COMPANY'S REVENUE  
11            REQUIREMENT SHOULD BE PERMANENTLY REDUCED  
12            BY THE REDUCTION IN FIRE PROTECTION REVENUES?

13           A.    No. In fact, the Order contradicts the positions of the AG and  
14           other intervenors.

15    12.    Q.    WHAT OTHER AREAS IN THE ORDER SUPPORT THE  
16            COMPANY'S POSITION?

17           A.    On page 3, the Order states, "Both Tennessee-American Water  
18           Company's legal counsel and Mr. L'Ecuyer, on behalf of the  
19           company and stockholders, represented that the Company  
20           intended to recover the lost margin resulting from the approval of  
21           this Tariff by increasing sales of water to existing customers and  
22           by gaining new customers. The Company, furthermore, states the  
23           approval of a rate reduction for the City of Chattanooga, will

1 somehow translate into an opportunity to become more  
2 competitive and efficient, thereby ultimately resulting in rate  
3 payer benefits." On page 4 it says, "The Company (and  
4 stockholders) memorialized its conviction by stating its intention  
5 to limit margin loss recovery in a manner that has no effect on  
6 today's or future rates."

7 13. Q. HAS THE COMPANY MET THIS "INTENTION"?

8 A. Yes. Growth/Savings in excess of the reduced fire protection  
9 revenue are permanently embedded in this case and more than  
10 offset that reduction, thereby offsetting the allocation of fire  
11 service revenue to the other classes of revenue as proposed by  
12 the Company in this case.

13 14. Q. DID THE COMPANY RELY ON THIS BASIC RATE MAKING  
14 PRINCIPLE AT THE TIME OF THE HEARING BEFORE THE  
15 TRA?

16 A. Yes. The Company understood what would happen to those  
17 Growth/Savings under traditional ratemaking practices when  
18 other factors drove the need to file for a rate increase. The TRA  
19 specifically provided that the Company could offset the rate  
20 reduction by Growth/Savings. It is a traditional ratemaking  
21 axiom that efficiencies and revenue increases flow through to the  
22 benefit of ratepayers every time there is a rate case. Given that,  
23 we believe that the clear intent of the Order was that the TRA was

1 dealing with the specific revenue loss from the hydrant rate  
2 reduction as a one-time item. We also believed that prior to the  
3 next rate case filing the Company would seek to achieve an  
4 offsetting amount of Growth/Savings, the inclusion of which  
5 would be embedded in the next rate filing. The Company would  
6 then be free to pursue the change in hydrant rates or other  
7 alternatives in a cost of service study, but that the revenue  
8 reduction would not thereafter be applied in cases against the  
9 Company's TRA approved revenue requirement if the Company  
10 demonstrated and embedded in its cost of service Growth/Savings  
11 in excess of the reduction in fire protection revenue.

12 15. Q. DO YOU THINK THE COMPANY'S POSITION IS  
13 CONSISTENT WITH THE CITY REPRESENTATIONS AT  
14 THE HEARING?

15 A. Yes. We believe the statements of Mayor Kinsey and the City  
16 Attorney, Henry Walker, at the hearing support that  
17 interpretation of the Order. In fact, those comments crystallize  
18 the position of the City, and support the Company's position in  
19 this rate case.

20 16. Q. DID THE TRA INDICATE OR HOLD IN THE ORDER THAT  
21 THE PUBLIC FIRE PROTECTION RATES WERE FROZEN  
22 OR COULD NOT BE CHANGED IN THE FUTURE?

23 A. No, the Order is silent about public fire protection rates in future

1 rate cases. The Order certainly did not indicate that the rates  
2 were frozen. The comments of the City at the hearing also did not  
3 represent those rates would be frozen in future rate filings.

4 17. Q. WHAT DID THE COMPANY REPRESENT AT THE  
5 HEARING?

6 A. In order to fully understand those statements it is necessary to  
7 review the transcript of the hearing to determine the context in  
8 which the Company's statements were made. The Company  
9 represented at the hearing that it did not anticipate a rate  
10 increase for three or four years, that it would generate  
11 Growth/Savings to offset the lower revenue from fire protection,  
12 and that factors other than reduced fire protection revenues  
13 would drive the need to increase rates.

14 Those Growth/Savings are embedded in the current rate  
15 filing and flow to the ratepayers in the current rate case, thus  
16 lowering the overall revenue requirement. The Company  
17 believes that it represented that those Growth/Savings would  
18 offset the lower fire service revenue when they flowed to the  
19 ratepayers in its next rate case.

20 18. Q. DID THE COMPANY OR THE CITY ARGUE OR AGREE  
21 THAT THE COMPANY'S SHAREHOLDERS WOULD BEAR  
22 THE COST OF THE REDUCTION IN PUBLIC FIRE  
23 PROTECTION REVENUE FOREVER?



1 A. No. It is clear from the statements and the transcript that the  
2 Company and City knew this issue would have to be dealt with in  
3 the Company's next rate case, but there was no agreement by the  
4 parties that the shareholders would have to bear the cost of the  
5 reduced fire protection revenue. This was clear in the statements  
6 of both parties at the hearing.

7 19. Q. WHAT DID THE CITY SAY ABOUT THE TARIFF FILING  
8 MADE AS A RESULT OF THE SETTLEMENT WITH CITY?

9 A. Mayor Kinsey said (transcript beginning on page 17, line 19):

10  
11 "I think that there are - they're not - in the near  
12 future they're not doing - they're not coming with any  
13 rate increases as a result of this."

14 He further stated (beginning on page 18, line 7):

15  
16 "And we - at the point there is a request for a rate  
17 change, I would think that, you know, everyone would  
18 look at the cost of service of a lot of different things.  
19 And I will add that at this point to answer specifically  
20 the question about why is this good for the ratepayers,  
21 number one, there is no increase in cost to any  
22 ratepayer at this point at all. Number two, not only  
23 the City of Chattanooga but the cities of Red Bank  
24 and East Ridge and many other local governmental  
25 entities will be saving a million dollars a year which  
26 gets passed on to those ratepayers as citizens and  
27 taxpayers."

28 20. Q. DO THE MAYOR'S COMMENTS INDICATE A PERMANENT  
29 REDUCTION IN THE COMPANY'S REVENUE  
30 REQUIREMENT BEYOND THAT REFLECTED BY THE

1 GROWTH/SAVINGS EMBEDDED IN THIS CASE?

2 A. No, quite the contrary. Mayor Kinsey indicates there would be no  
3 rate increase to any rate payer at this time at all. Our feeling was  
4 that the Mayor was not advocating that the Company's  
5 stockholders bear a portion of the public fire protection  
6 permanently. He said that the Company would not in the near  
7 future ask for rate recovery for this reduction, and presumably  
8 when other factors drove the need for rate relief a cost of service  
9 study should be filed to address this issue. That is exactly what  
10 the Company did in this rate filing.

11 21. Q. DID THE COMPANY OR THE CITY INDICATE THE  
12 REDUCTION IN FIRE PROTECTION REVENUE WOULD  
13 CONSTITUTE A PERMANENT REDUCTION TO THE  
14 COMPANY'S COST OF SERVICE OR THAT PUBLIC FIRE  
15 PROTECTION RATES WERE PERMANENTLY FROZEN?

16 A. No one made those assertions. In fact, Mr. Walker, attorney for  
17 the City, said (beginning on page 19, line 24):

18  
19 "Now the question is when they come back for a rate  
20 case, whether it's two or three or four years from  
21 now, if they feel its appropriate to raise hydrant rates,  
22 they can present a cost study, and they can show you  
23 at that time that it's not covering their costs, and then  
24 you (TRA) can decide what to do about it. The City  
25 will be an active participant in that rate case, and we  
26 will point out ways in which we think - well, we hope  
27 to be able to point out ways in which we think any  
28 rate increase could be mitigated."

1 22. Q. IS THE COMPANY'S FILING CONSISTENT WITH MR.  
2 WALKER'S STATEMENT?

3 A. Yes, that is how the Company presented this rate case. The City  
4 did not argue that the Company should be required to absorb a  
5 permanent reduction in its revenue requirement for reduced fire  
6 protection revenues beyond the Growth/Savings embedded in this  
7 case, or that public fire rates were frozen in future rate cases.

8 23. Q. WHAT DID THE COMPANY BELIEVE THE ORDER  
9 MEANT?

10 A. We believed that the Company would absorb the cost of lower fire  
11 protection revenues to the extent it did not generate  
12 Growth/Savings in excess of the reduction until other factors  
13 drove the need to increase rates. At that point the Company  
14 would file a rate case with those Growth/Savings embedded in the  
15 case as an offset to the reduction in public fire protection revenue,  
16 thereby offsetting the impact of the fire protection revenue on  
17 future ratepayers. That is exactly what the Company has done in  
18 its filing in this case. The Company is recommending that a  
19 portion of the public fire protection cost, as determined by the  
20 cost of service study, be allocated to the other customer classes  
21 who directly benefit from that service. This is what is done in  
22 some form by most other regulatory jurisdictions.

23 24. Q. WHAT LANGUAGE IN THE SETTLEMENT AGREEMENT

1 ADDRESSES THE REDUCTION IN FIRE PROTECTION  
2 FEES?

3 A. The Settlement Agreement states, "TAWC and the City will file a  
4 joint petition with the Tennessee Regulatory Authority ("TRA")  
5 seeking permission to reduce over a two-year period the current  
6 charge of \$301.00 a year per fire hydrant to \$50.00 a year per fire  
7 hydrant at the end of that period. If the TRA does not approve  
8 the provision, then this section is null and void."

9 25. Q. WOULD THE SETTLEMENT WITH THE CITY HAVE GONE  
10 FORWARD IF THE AUTHORITY HAD NOT APPROVED  
11 THE FIRE PROTECTION PART OF THE SETTLEMENT?

12 A. Yes, that was the agreement of the parties. The settlement  
13 agreement contemplated that the TRA could accept the tariff or  
14 deny it. Further, the agreement provided that if the TRA rejected  
15 that section of the settlement the remaining sections of the  
16 settlement agreement would continue. Further, the parties never  
17 agreed or indicated to the TRA that the stockholders should bear  
18 the reduction forever or that the parties considered the tariff a  
19 permanent reduction of the Company's cost of service.

20 26. Q. WHAT DID THE COMPANY DO AFTER THE HEARING?

21 A. The Company filed the tariff approved by the Order and phased  
22 in the public fire protection reduction over a two - year period.

23 27. Q. DID THE TARIFF INDICATE IT WAS PERMANENT?

1           A.    No. As with any tariff, the Company believed it could address this  
2                    issue in its next rate case and that the tariff was subject to change  
3                    by the TRA based on the decision of the TRA in a future rate  
4                    case.

5   28.   Q.    WILL THE COMPANY EVER RECOVER ANY OF THE  
6                    REVENUE LOST DURING THE "STUB PERIOD."

7           A.    No. The revenue lost from reducing public fire protection charges  
8                    between the date of the Order and implementation of new rates  
9                    from the current case cannot be recovered. The lost revenue in  
10                  this "stub period" was approximately \$2.256 million (thru 2002,  
11                  not updated for 2003), and the Company is not currently  
12                  recovering the revenue and cannot recover that revenue in this  
13                  case. The Company understood and agreed that it would  
14                  permanently forego the lost revenue from the stub period when it  
15                  filed the tariff, and made its representations at the hearing. We  
16                  believe Mayor Kinsey and Mr. Walker also understood that.

17   29.   Q.    DID THE COMPANY UNDERSTAND THE TRADITIONAL  
18                    RATE MAKING CONCEPT THAT THE GROWTH/SAVINGS  
19                    FLOWED TO THE CUSTOMERS AFTER A NEW RATE CASE  
20                    WAS FILED?

21           A.    Yes, the Company understood the concept that Growth/Savings  
22                    flow the customers once a rate case is filed. However, the  
23                    Company did not represent that it would also permanently absorb

1 a significant portion of the cost of providing public fire protection.  
2 I believe the Company only represented that it hoped to generate  
3 Growth/Savings to offset the fire protection reduction and those  
4 Growth/Savings would flow to the customers in its next rate case,  
5 and offset the reduced fire protection revenue going forward.

6 30. Q. CAN YOU PROVIDE AN EXHIBIT THAT RELECTS WHAT  
7 THE COMPANY REPRESENTED?

8 A. Yes. Attached to this testimony is Rebuttal Exhibit MAM-5 that  
9 describes what the Company represented.

10 31. Q. WOULD YOU DESCRIBE THAT EXHIBIT?

11 A. The Exhibit contains three columns, the first column reflects the  
12 revenue in 1999 before and after the fire service revenue  
13 reduction. The second column indicates the revenue requirement  
14 in this case if the Company had not generated Growth/Savings as  
15 represented to the TRA in the hearing. The third column shows  
16 the revenue requirement requested in this case of \$34.276 million  
17 and indicates Growth/Savings of \$2.373 million, or \$1.336 million  
18 more than the reduction in fire service. The Company believes  
19 this graph depicts what it represented to the TRA.

20 32. Q. CAN YOU INDICATE THE NATURE OF THE \$2.373  
21 MILLION OF GROWTH/SAVINGS MENTIONED IN THE  
22 PREVIOUS ANSWER?

23 A. Yes. Attached to this testimony are Rebuttal Exhibits MAM-6

1 and MAM-7 that show the Growth/Savings generated since the  
2 last rate case in 1996.

3 33. Q. IF YOU ADJUSTED THIS GRAPH TO ACCEPT THE  
4 ARGUMENT OF DR. BROWN AND THE OTHER  
5 INTERVENORS, WHAT ADJUSTMENTS WOULD YOU  
6 MAKE?

7 A. Column three would have to be adjusted to reflect the revenue  
8 reduction in addition to the Growth/Savings, and the purple box  
9 (reduction in fire service revenue) would have to be moved below  
10 the \$34.276 million revenue requirement requested in this case.  
11 The Company did not represent that at the hearing. That  
12 approach is also not consistent with the Order in that it provides  
13 both benefits to the customer, not either, or as indicated on page 4  
14 of the Order. That adjustment would effectively eliminate any  
15 opportunity for the Company to achieve its authorized ROE  
16 granted in this case. Obviously this graph must be adjusted to  
17 reflect the actual revenue requirement granted in this case, but  
18 the impact would be the same.

19 34. Q. IS THE POSITION OF THE AG AND OTHER INTERVENORS  
20 DESCRIBED CONSISTENT WITH THE ORDER?

21 A. No. Using the Growth/Savings and eliminating the recovery of  
22 the cost of service based charge for public fire service from the  
23 municipalities or from the other classes of customers who directly

1 benefit from that service penalizes the Company beyond the  
2 contemplation of the Order. We do not believe that the Company  
3 or the City ever advocated or represented this "double impact" to  
4 the TRA.

5 35. Q. WOULD THE POSITION OF THE AG AND OTHER  
6 INTERVENORS HAVE A NEGATIVE LONG-TERM IMPACT  
7 ON THE COMPANY AND ITS CUSTOMERS?

8 A. Yes. This would effectively place the Company in what is  
9 commonly referred to in the ratemaking environment as a "death  
10 spiral." In order to have any opportunity to achieve its  
11 authorized ROE, the Company must again generate more  
12 Growth/Savings, and those would again flow to the ratepayers in  
13 the next rate case. The fact is there simply is a point beyond  
14 which the Company can no longer generate Growth/Savings. At  
15 that point service suffers and the Company's credit worthiness  
16 declines. The Company will not be able to attract low cost debt or  
17 additional equity to fund capital improvements. The Company  
18 certainly did not advocate this scenario and does not believe it was  
19 the intent of the City or the TRA Order to place the Company in  
20 that position. This situation would not be in the best long-term  
21 interests of the Company or its customers.

22  
23 36. Q. DR. BROWN REFERS TO SEVERAL STATEMENTS FROM



1 THE TRANSCRIPT AND ORDER IN HIS TESTIMONY. DO  
2 YOU AGREE WITH HIS CHARACTERIZATIONS OF THE  
3 RECORD?

4 A. No; however, the comment on page 6, lines 19-33 of his testimony  
5 requires some clarification. Dr. Brown provides quotes of the  
6 exchange between Director Greer and the Company  
7 representatives. His is correct that there was a long discussion  
8 between Director Greer, Mr. Pappas, and Mr. L'Ecuyer. In this  
9 exchange Director Greer asked several times in different forms  
10 how this revenue loss will be handled. In that entire exchange the  
11 Company indicated in a consistent message that the Company  
12 would offset the lost revenue with Growth/Savings until other  
13 factors drove the need to increase rates. I believe based on the  
14 transcript the Company was consistently referring to the "stub  
15 period" in this exchange. Not once did the Company indicate it  
16 was representing a permanent revenue requirement reduction  
17 during this exchange.

18 37. Q. IS THE QUOTE USED ON PAGE 6, LINE 32-33 COMPLETE?

19 A. No. Dr. Brown quoted Mr. Pappas: "This particular loss will – is  
20 not occasioned for a rate increase." However, Dr. Brown failed to  
21 include the remainder of Mr. Pappas' statement. In the next  
22 sentence Mr. Pappas said: "We are trying to take care of this by  
23 two things: Increase the sale of water to our existing customers;

1 try to pick up new customers.” Mr. Pappas discussed further the  
2 800 acre Volunteer Site and how one new, large customer could  
3 offset the reduction. In the last paragraph of this response, Mr.  
4 Pappas stated there were no plans at the present time to recover  
5 this by a rate case, but he made it equally clear that he was not  
6 telling the TRA within 3-5 years the Company would not file for a  
7 rate increase that could be occasioned by something else.

8 38. Q. WHY DO YOU BELIEVE DR. BROWN HAS USED ONLY A  
9 PORTION OF THIS EXCHANGE?

10 A. I can’t speak for Dr. Brown’s intent, but his selective use of the  
11 transcript seems to imply that the Company was agreeing to a  
12 permanent reduction in its cost of service for the public fire  
13 protection revenue reduction. In fact, in the context of the entire  
14 exchange, the Company did not represent anything other than its  
15 intent to increase revenue during the “stub period” and that other  
16 factors would drive the need to increase rates. I indicated earlier  
17 in my testimony that it is critical to understand what the  
18 Company represented at the hearing and keep those  
19 representations in the context of the entire exchange.

20 39. Q. DR. BROWN ARGUES THAT YOUR DIRECT TESTIMONY  
21 DOES NOT PROVIDE AN ACCURATE VERSION OF THE  
22 ECONOMICS OF THE AGREEMENT WITH THE CITY. DO  
23 YOU AGREE WITH HIM?

1       A.   No.  As the Treasurer and Comptroller of the Company I  
2       understand the economics of the agreement very well.  I have  
3       provided language from the settlement agreement, the  
4       representations of the Company and the City at the hearing, and  
5       the Company's position on this issue.  The economics of the  
6       settlement agreement are that the Company agreed to file a tariff  
7       to lower public fire protection revenue over a two - year period.  
8       It was a way of paying the City \$1.1 million (and then only if  
9       approved by the TRA), and certainly not a perpetual annual  
10      amount that would equate to untold millions.  The agreement in  
11      no way indicated this reduction was permanent or that the  
12      Company could not seek to increase the tariff in future rate cases.  
13      There are no statements in the transcript that support Dr.  
14      Brown's extraordinary position that the Company agreed to  
15      absorb a portion of the reduced public fire protection revenue  
16      permanently after the "stub period" ended with approved rates  
17      from a future rate case.

18   40.   Q.   DO YOU HAVE ANYTHING FUTHER TO SAY ABOUT YOUR  
19           UNDERSTANDING OF THE ECONOMICS OF THE  
20           SETTLEMENT?

21       A.   It is inconceivable to me that anyone could assert as settlement to  
22       the lawsuit with the City the Company agreed to pay the City \$1.1  
23       million for as long as it does business in Chattanooga (in

1 perpetuity). I don't believe given the comments of the City and  
2 the Company at the hearing that was ever contemplated and we  
3 don't believe that was the intent of the TRA. For Dr. Brown to  
4 assert that the Company agreed to a permanent annual payment  
5 to the City, or that the Agreement contemplated or indicated that  
6 position is unreasonable. Admittedly, he and I are not lawyers,  
7 but I believe we both know his interpretation of the Order as  
8 expressed in his testimony is inconsistent with what was held in  
9 the Hope and Bluefield Gas cases. Dr. Brown's interpretation of  
10 the Order would place the Company in a position where it would  
11 not have an opportunity in this case, or any future rate cases, to  
12 achieve a fair and reasonable return on its investments.

13 41. Q. DR. BROWN ASSERTS IN ANSWER TO QUESTION 16 OF  
14 HIS TESTIMONY THAT THE SETTLEMENT AGREEMENT  
15 ESTABLISHED A PERMANENT FLOW OF RESOURCES TO  
16 THE CITY. DO YOU AGREE?

17 A. No. I fail to understand how Dr. Brown can assert that the  
18 settlement agreement provided a permanent annual payment  
19 when the Agreement i) was subject to TRA approval, ii) provided  
20 no mention of this being a permanent reduction or that the  
21 Company would permanently absorb the cost of fire protection,  
22 and, iii) made no mention of freezing those rates permanently.  
23 This assertion by Dr. Brown is inconsistent with the clear

1           representations of Mayor Kinsey and Henry Walker at the  
2           hearing stating that i) there was no rate increase at this point at  
3           all, ii) the Company is free to seek an increase in the fire service  
4           rate in a future rate case, and iii) the Company should prepare a  
5           cost of service study to address this issue in its next rate case.

6   **42. Q. WOULD YOU ADDRESS THE COMMENTS OF DR. BROWN**  
7           **THAT THE RECORD DOES NOT INDICATE ANYTHING**  
8           **OTHER THAN THE REDUCTION IS PERMANENT?**

9           **A. Dr. Brown asserts the record provides no indication that the**  
10           **Company's resource transfer is anything other than permanent.**  
11           **As this rebuttal testimony indicates, the settlement agreement, the**  
12           **transcript of the hearing and the Order contain numerous**  
13           **indications and statements that support the Company's position.**

14   **43. Q. DR. BROWN ASSERTS THAT THE COMPANY'S COST OF**  
15           **SERVICE STUDY AFFIRM'S THE COMMITMENT TO**  
16           **TRANSFER \$1.1 MILLION TO THE CITY ANNUALLY. DO**  
17           **YOU AGREE?**

18           **A. No. The Company believes that the City and the Company**  
19           **understood that Growth/Savings presented the only offset to the**  
20           **Company for the reduced fire protection revenue in the "stub**  
21           **period." Further, under standard ratemaking, once a rate case is**  
22           **filed the Growth/Savings become embedded in the Company's**  
23           **cost of service. Rebuttal Exhibit MAM-5 shows that the revenue**

1 requirement in this case has already been reduced in excess of the  
2 reduced fire protection revenue. This is consistent with the  
3 Order, and the Company and City's representations at the  
4 hearing.

5 44. Q. DO YOU BELIEVE THAT THE COST OF SERVICE  
6 ALLOCATIONS CONFIRM THE COMPANY'S  
7 COMMITTEMENT TO TRANSFER \$1.1 MILLION TO THE  
8 CITY ANNUALLY?

9 A. As Exhibit MAM-5 reflects, the Company embedded in this case  
10 Growth/Savings in excess of the reduced fire protection consistent  
11 with the Order and the Company's representations. That does  
12 not eliminate the need to allocate the \$34.276 million revenue  
13 requirement requested by the Company (or the revenue  
14 requirement ultimately determined by the TRA). The Company  
15 has proposed and requested the TRA to consider allocating its  
16 cost of service based on a cost of service study and tariff design  
17 prepared by Paul Herbert on behalf of the Company. That study  
18 determined that the cost of public fire service was \$1.473 million.  
19 The Company believes it is free to propose allocating that entire  
20 amount to the municipalities based on the settlement agreement,  
21 as confirmed by the statements of Mayor Kinsey and Henry  
22 Walker at the hearing, and the Order (which is silent on future  
23 increase in public fire service tariffs). The Company chose to

1 propose a 25% cap of full cost of service to the municipalities,  
2 with the remainder allocated to the other classes who directly  
3 benefit from this service.

4 45. Q. IS THIS AN ADMISSION OF A PERMANENT TRANSFER OF  
5 ASSETS TO THE MUNICIPALITIES, OR AN ADMISSION  
6 THAT THE COMPANY SHOULD ABSORB A PORTION OF  
7 THE COST OF PUBLIC FIRE SERVICE PERMANENTLY?

8 A. As I testified in my direct testimony, most regulatory jurisdictions  
9 do not pass the full cost of service for public fire protection to the  
10 municipalities, but instead place all or a portion of those costs on  
11 the other customer classes who benefit directly from that service.  
12 The Company believes its proposed allocation places a portion of  
13 that cost on the customers who directly benefit from the service,  
14 and that this allocation is a reasonable way to recover fire  
15 protection charges, as recognized in some form by most other  
16 regulatory jurisdictions.

17 This cost of service allocation proposed by the Company in  
18 this case is mistakenly interpreted by Dr. Brown as a commitment  
19 by the Company to make a permanent transfer to the City that  
20 was never contemplated in the agreement, represented by the City  
21 or the Company at the hearing, or included in the Order. The  
22 Company has simply asked the TRA to consider an alternative  
23 cost of service allocation method consistent with most other

1            jurisdictions.

2    46.    Q.    IS THERE A DISTINCTION BETWEEN OVERALL REVENUE  
3                    REQUIREMENT AND THE ALLOCATION ISSUE OF THE  
4                    COST OF SERVICE STUDY THAT MIGHT BE CAUSING  
5                    CONFUSION ON THIS ENTIRE ISSUE?

6            A.    I believe there is. The Company represented at the hearing a  
7                    revenue requirement offset when those Growth/Revenues became  
8                    embedded in its cost of service in its next rate case. I believe the  
9                    Company has demonstrated that revenue requirement has been  
10                  decreased in excess of the reduced fire protection, and the  
11                  Company believes this is consistent with its representations and  
12                  consistent with the Order.

13                    How to allocate that cost of service (already reduced for  
14                    those Growth/Savings) is a separate issue. The AG's position that  
15                    the approved cost of service based revenue requirement should be  
16                    lowered further for the reduced fire protection revenue is  
17                    inconsistent with what the Company represented and inconsistent  
18                    with the intent of the Order.

19                    The Company believes that it must allocate its entire  
20                    revenue requirement with those Growth/Savings embedded,  
21                    otherwise it has no offset to the reduced fire service revenue. The  
22                    AG's position would effectively require the Company to absorb a  
23                    portion of the cost of fire protection permanently, unless it is



1 permitted to retain a level of Growth/Savings to offset the  
2 unallocated cost of public fire protection. This position of the AG  
3 is simply not in the best interests of the customers over the long-  
4 term, and the Company does not believe that position was the  
5 intent of the TRA in its Order.

6 47. Q. DO YOU HAVE ANY COMMENTS ABOUT THE  
7 TESTIMONY OF CMA WITNESS RAY CHILDERS?

8 A. Yes. Mr. Childers alleges that the Company's position in this  
9 filing is unconscionable and that the Company is attempting to  
10 renege on the promises made to the TRA, the City, and the  
11 ratepayers. The fire service Order, and the issues surrounding  
12 the Order are complex. Careful reading of the Order in its  
13 entirety, and analysis of the representations of the Company and  
14 the City, particularly the comments of Mayor Kinsey and Henry  
15 Walker, indicate that the Company actions in this case are  
16 consistent with the Order. The comments of Mayor Kinsey and  
17 Henry Walker at the hearing clearly indicate the City's  
18 understanding of the settlement. The Company certainly does not  
19 believe it has reneged on the settlement and believes its filing is  
20 consistent with the City's representations at the hearing.

21 48. Q. DO YOU HAVE ANY COMMENTS ABOUT THE  
22 TESTIMONY OF THE OTHER CMA WITNESSES, MR.  
23 CANTRELL, MR. CROWDER, AND MR. NUCKELS?

1           A.    Yes. While the Company can sympathize with the testimony of  
2               the CMA about increased costs, it is unfair to indicate their entire  
3               competitive position rests with the water rates. The Company has  
4               not increased rates in over seven years. The Company has also  
5               experienced cost increases for such items as wage increases,  
6               benefit costs, insurance costs, property taxes, increased capital  
7               investment, and other inflationary trends. The Company has  
8               taken significant measures to control costs, including having 20  
9               fewer employees in operations and moving to a national call  
10              center and shared service functions.

11                     There are differences in market driven companies and  
12                     utilities other than price setting regulation. Utilities have a public  
13                     service obligation driven by rules and regulations on service  
14                     quality, water quality, extension of service, and various other  
15                     regulatory requirements. The Company cannot change its rates  
16                     without prior approval or cut costs below the point where it is  
17                     able to meet its public service obligation. There comes a time  
18                     when increased rates are necessary in order to meet that public  
19                     service obligation.

20   49.   Q.    HAVE YOU LOOKED AT THE INDUSTRIAL RATES IN  
21               OTHER AREAS OF TENNESSEE AND ADJACENT AREAS?

22           A.    Yes. For a small industrial customer using 1.4 million gallons per  
23               month the proposed industrial rates in this case for the

1 Chattanooga area are 17% lower than Nashville, 21 higher than  
2 Knoxville in City rates, 1% higher than Knoxville out of City  
3 rates, 13% lower than Atlanta's in City rate, and 33% lower than  
4 Atlanta's out of City rates

5 For larger industrial customers using 15 million gallons per  
6 month, Chattanooga rates are 65% lower than Nashville, 8%  
7 higher than Knoxville in City rates, 12% lower than Knoxville out  
8 of City rates, 82% lower than Atlanta in city rates, and Atlanta  
9 out of City rates are 114% higher than Chattanooga. I believe  
10 the analysis above demonstrates the Company's industrial rates  
11 are very competitive with other major Tennessee water systems.

12 50. Q. DO YOU HAVE ANY COMMENTS REGARDING THE  
13 TESTIMONY OF MR. KINSEY?

14 A. Yes. Mr. Kinsey does not dispute the Company position in this  
15 filing. Mr. Kinsey indicates specific questions regarding whether  
16 the Company understood this reduction would always be borne  
17 by the stockholders, never the rate payers. Again, it is critical to  
18 review the comments of the Company to these questions in the full  
19 context of the answers. The Company believes its filing is  
20 consistent with what it represented at the hearing and consistent  
21 with the Order. As stated by Mr. Kinsey at the hearing, the  
22 taxpayers (customers) received the benefit of reduced taxes or  
23 avoided tax increases, and in this case the ratepayers get the

1 benefit of the Growth/Savings. It was never indicated by the  
2 Company or the City that the ratepayers would get both benefits.  
3 The comments of the Company, and particularly the comments of  
4 Mr. Kinsey and Henry Walker certainly never indicated the  
5 Company would have to bear all or a portion of the reduced fire  
6 protection permanently.

7 51. Q. WOULD YOU COMMENT ABOUT MR. KINSEY'S POSITION  
8 ON THE INCREASE TO PUBLIC FIRE PROTECTION IN  
9 THIS CASE?

10 A. Yes. Mr. Kinsey indicates he believes the Company was free to  
11 raise public fire service rates, however, he is surprised by the  
12 43.9% increase. This is the cost of service issue mentioned earlier  
13 (not the revenue requirement issue), and the Company does not  
14 propose to allocate all of the cost of providing public fire service  
15 to the municipalities. The method proposed is to limit the amount  
16 recovered from the municipalities to 25% of cost of service as  
17 Pennsylvania has done. In my direct testimony, I addressed  
18 various methods of allocating public fire service used in other  
19 jurisdictions. The Company is open to any reasonable method of  
20 setting public fire rates below full cost of service as long as it is  
21 clearly understood that the Company can allocate the  
22 unrecovered amount to the other classes, as is done in each  
23 jurisdiction listed in my direct testimony.

1 52. Q. DR. BROWN MAKES REFERENCE AND PLACES SOME  
2 IMPORTANCE ON THE COMPANY'S DIVIDEND PAY OUT  
3 FROM 1999 EXCEEDING EARNINGS. WHAT IS THE  
4 COMPANY'S DIVIDEND POLICY AND WHY WAS 1999 NOT  
5 A TYPICAL YEAR?

6 A. The policy is established by the Board of Directors, and the policy  
7 is to pay dividends at 75% of calendar year earnings. Dividends  
8 are paid one quarter in arrears. The dividend pay out in 1999 is  
9 not typical, and the dividend exceeding 100% of earnings is  
10 created solely due to timing of the payments. The declared  
11 dividends for the four quarters of 1999 equal 75% of 1999  
12 earnings. Because the payments are being made one quarter in  
13 arrears, the 1999 dividend referenced by Dr. Brown includes the  
14 dividend payments for the fourth quarter 1998 and the first three  
15 quarters of 1999. The earnings for 1999 are not typical due to the  
16 recording of condemnation expenses. Mr. Moul will address the  
17 significance of this issue raised by Dr. Brown.

18 53. Q. DO YOU HAVE COMMENTS ON THE ROE  
19 RECOMMENDATIONS OF THE AG AND CITY?

20 A. Yes. As indicated in the rebuttal testimony of Mr. Moul, both  
21 recommendations have serious flaws in the methods utilized and  
22 produce a result that is unrealistic, particularly in relation to  
23 comparisons to awards in other jurisdictions. The 9.21% ROE

1 recommended by Dr. Brown is unrealistic and when his weighted  
2 overall cost of capital is applied to the capital structure of the  
3 Company it produces an ROE of 8.4%.

4 54. Q. WOULD A COMPARISON OF THE LATEST AUTHORIZED  
5 ROE'S OF OTHER AMERICAN WATER SUBSIDIARIES  
6 PROVIDE A MEANINGFUL COMPARISON?

7 A. It is certainly a practical and valid consideration for the  
8 Commission. The Company has had a need for outside funding in  
9 order to finance the capital expenditures it has undertaken over  
10 the past seven years and will undertake in the future. That  
11 capital investment is one of the primary reasons for the rate  
12 increase requested in this case. The equity portion of that  
13 additional permanent capital is supplied by the Company's  
14 parent, American Water. The Company should be allowed to  
15 maintain a strong financial position and capital structure in order  
16 to compete with other alternatives for the equity capital supplied  
17 by American Water, and debt capital in the market at reasonable  
18 rates.

19 55. Q. HOW DOES THE AG'S RECOMMENDED RETURN ON  
20 EQUITY COMPARE TO THAT OF OTHER AMERICAN  
21 WATER WORKS SUBSIDIARIES AT THIS TIME?

22 A. Attached to this testimony is Rebuttal Exhibit MAM-8 which  
23 compares the currently authorized ROE's of the American Water

1 operating subsidiaries to the "Value Line Publication" rates for  
2 A-rated utility bonds at the time of the hearing on each case for  
3 those operating subsidiaries. The Exhibit shows the spread  
4 between authorized ROE and the A-rated utility bonds. The  
5 Exhibit also includes a projection of the ROE requested by the  
6 Company based on the current projected Value Line 30-year T-  
7 Bond rate for 2004 plus a projected spread between 30-year T-  
8 Bonds and A-rated utility bonds. It is important to note that no  
9 other American Water operating subsidiary is currently  
10 authorized an ROE remotely comparable to the fall-out ROE to  
11 the Company of 8.4% recommended by the AG. This information  
12 is based on the seven American subsidiaries that have received  
13 rate orders since January 2001.

14 **56. Q. WHAT IS THE COMPANY'S POSITION ON THE RETURN**  
15 **ON EQUITY FOR THE COMPANY?**

16 **A.** The Company believes that its authorized rate of return, using the  
17 Company's capital structure, should be in line with the returns on  
18 equity granted other American Water subsidiaries if it is to  
19 continue to attract equity, and attract debt at reasonable rates.

20 **57. Q. WHAT IS THE COMPANY POSITION ON DOUBLE**  
21 **LEVERAGE?**

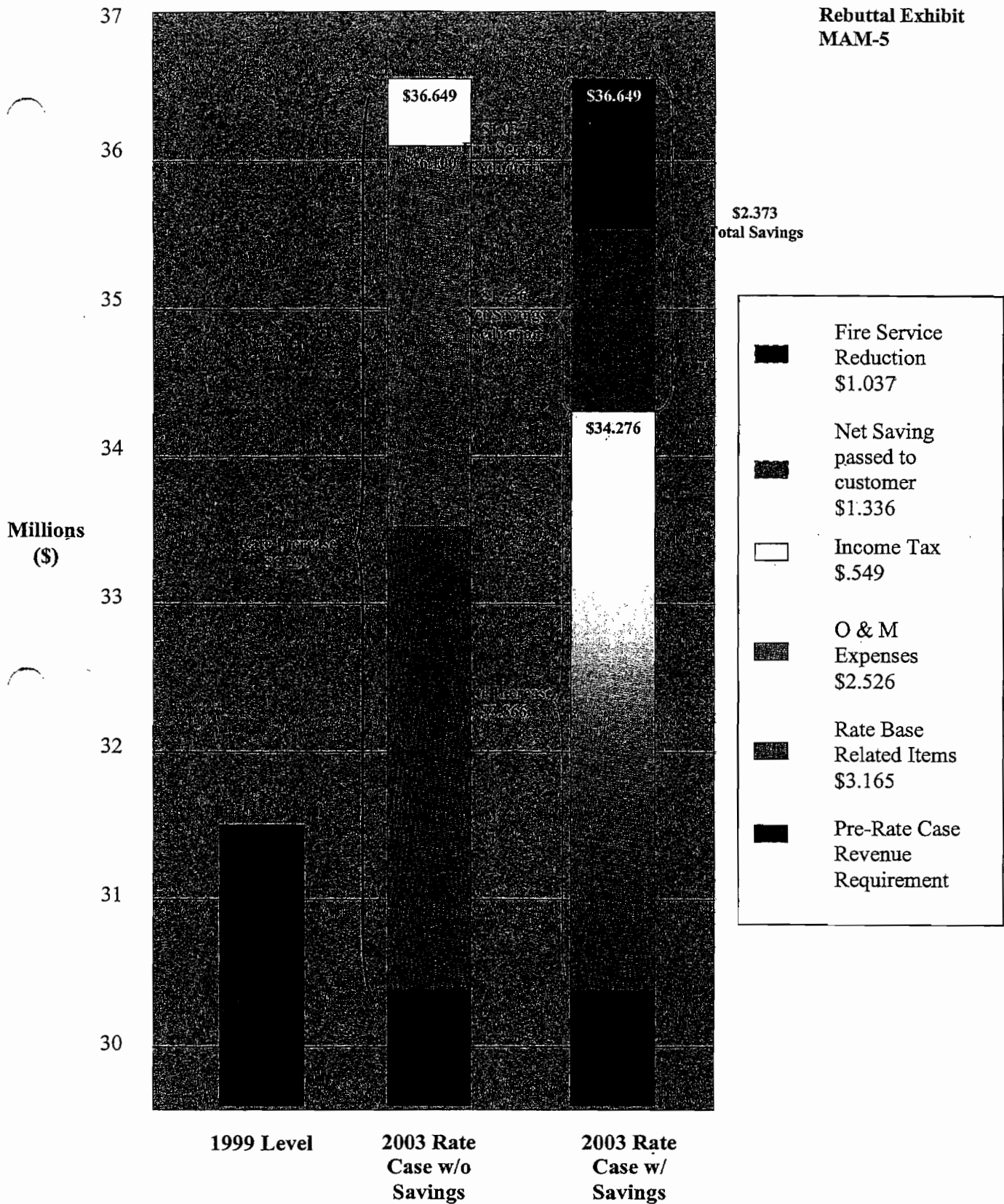
22 **A.** The Company does not believe applying a double leverage capital  
23 structure in determining the Company's ROE produces the true

1 cost of equity for the Company as Mr. Moul indicates in his  
2 testimony. Mr. Moul recommends that the TRA's first  
3 adjustment to the AG's recommended ROE should be to elevate  
4 that ROE for the DCF adjustments related to appropriate  
5 utilization of that method and its various components and  
6 projections. However, if the TRA elects to continue its practice of  
7 applying double leverage, it should also include an additional risk  
8 premium to reflect the additional financial risk as indicated by  
9 Mr. Moul. In addition, Company believes that it should be  
10 permitted to allocate a portion of the public fire protection  
11 revenue as proposed in this case. The Company believes this  
12 position is supported by the Company and City's representations  
13 and the Order. If the TRA elects not to accept the Company's  
14 position, it should consider adjusting the Company's cost of  
15 service to permit the Company to retain an appropriate portion of  
16 Growth/Savings as an offset to the unallocated cost of public fire  
17 protection. The Company believes this approach would be  
18 consistent with the Company's representation and the Order. If  
19 the TRA ultimately adopts the AG's position on public fire service  
20 allocation, the TRA should add a third adjustment to the AG's  
21 recommended overall cost of capital to reflect the additional  
22 business risk associated with that decision as indicated by Mr.  
23 Moul.



1 58. Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

2 A. Yes.



## Tennessee-American Water Co. Revenue Requirement

**Tennessee-American Water Company  
Revenue and Productivity Gains**

**Rebuttal Exhibit  
MAM-6**

**Labor:**

Labor Expense in Current Case	5,066,666	
Labor Overhead Rate	<u>1.49</u>	
Labor with Labor O/H (group ins., pensions, FICA, 401k, FUTA, etc.)	7,549,332	
Number of Employees Previous Case		155
Less: Employees offset by Call Center and Shared Services Costs		<u>16</u>
Total Employees, net of Shared Services		139
Employees in Current Case & Comparable in Previous Case	<u>119</u>	<u>139</u>
Reduction of Employees from Normal Operations		(20)
 <b>Average Cost per Employee Current Case</b>	 <b>63,440</b>	
Reduction of Employees from Normal Operations since previous case	<u>20</u>	
 <b>Labor &amp; labor O/H Savings since Last Case</b>	 <b>1,268,795</b>	
<b>Revenue Growth Since 1996 Case per Rebuttal Exhibit MAM-6</b>	<b>661,682</b>	
<b>Net Savings from Customer Call Center and Shared Services Center per Direct Exhibit MAM-4</b>	<b>194,992</b>	
<b>Savings in Interest Expense Since 1996 Case</b>	<b><u>247,972</u></b>	
 <b>Identifiable Growth/Savings Since 1996 Case</b>	 <b>2,373,441</b>	

**Tennessee-American Water Company  
Growth In Revenues**

**Rebuttal Exhibit  
MAM-7**

	<b>Current Case @ Present Rates</b>	<b>1996 Case Authorized Rates</b>	<b>Growth Since Previous Rate Case</b>
<b><u>Revenues:</u></b>			
Residential	12,026,923	12,069,890	(42,967)
Commercial	9,180,456	7,836,468	1,343,988
Industrial	3,537,807	4,132,090	(594,283)
Other Public Authority	2,345,806	2,172,786	173,020
Other Water Utility	856,218	366,511	489,707
Private Fire	1,117,875	949,669	168,206
Public Fire	256,049	1,293,697	(1,037,648)
Other Operating Revenues	<u>1,088,221</u>	<u>926,562</u>	<u>161,659</u>
<b>Total Operating Revenues</b>	<b><u>30,409,355</u></b>	<b><u>29,747,673</u></b>	<b><u>661,682</u></b>

**Tennessee-American Water Company  
Comparison of Authorized ROE's - American Water Subsidiaries**

Rebuttal Exhibit  
MAM-8

<u>Company:</u>	<u>Order Date</u>	<u>Authorized ROE</u>	<u>Value Line "A" Utility Bonds</u>	<u>Date</u>	<u>Spread over "A" Util. Bonds</u>
California-Am.	2/23/2003	10.25%	6.84%	APR. 03	3.41%
Illinois-Am.	2/21/2001	10.20%	7.66%	JAN. 01	2.54%
Iowa -Am.	8/20/2001	10.45%	7.58%	JUL. 01	2.87%
Kentucky-Am.	5/9/2001	11.00%	7.43%	MAR. 01	3.57%
Missouri-Am.	5/18/2001	10.75%	7.43%	MAR. 01	3.32%
Pennsylvania-Am.	1/25/2002	10.60%	6.98%	NOV. 01	3.62%
Virginia-Am.	7/20/2001	10.75%	7.79%	MAY. 01	2.96%
Indiana-Am.	11/6/2002	10.50%	6.76%	SEP. 02	3.74%
Ohio-Am.	2/7/2002	10.30%	6.84%		3.46%
Averages		10.53%	7.26%		3.28%

**Conclusion:**

Value Line "A" Utility Bonds projection based on 7.10%

2004 Projected 30 Yr. T-Bond plus 2.00 %

Spread

Average Spread of AWW Companies 3.28%

**ROE Calculated on Average Spread 10.38%**

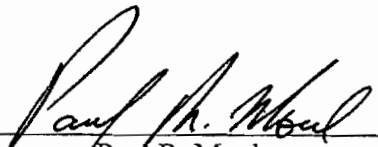
STATE OF NEW JERSEY

COUNTY OF CAMDEN

**AFFIDAVIT**

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Paul R. Moul, who, 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 rebuttal testimony would set forth in the annexed transcript.

  
\_\_\_\_\_  
Paul R. Moul

Taken, subscribed and sworn to before me this 20<sup>th</sup> day of June, 2003.

My commission expires May 12, 2004

  
\_\_\_\_\_  
Notary Public

**Notary Public of New Jersey**  
**I.D. #2165661 Com. Exp. 5/12/04**  
**Ruby Marie Tucker**

TENNESSEE-AMERICAN WATER COMPANY RECEIVED

CASE NO. \_\_\_\_\_

DIRECT TESTIMONY

MICHAEL A. MILLER

2004 SEP 10 AM 11:26

T.R.A. DOCKET ROOM

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.

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

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

4. Q. WHAT ARE YOUR RESPONSIBILITIES AS TREASURER AND  
COMPTROLLER?

A. I am responsible for overseeing the rates and revenue, accounting, finance,  
budgets, and cash management functions for each of the operating  
Companies in the Southeast Region, including Tennessee American Water.

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

A. I will address (i) the Capital Structure and overall cost of capital that  
includes the return on equity which will be addressed by Dr. Vander Weide,

1 (ii) cost of service allocations, (iii) proposed ratemaking treatment  
2 regarding public fire service, (iv) the current reorganization underway at  
3 American Water, (v) management fees, and (vi) the low income tariff  
4 proposed by the Company.  
5

6 **CAPITAL STRUCTURE AND OVERALL COST OF CAPITAL**  
7

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

10 A. The Company used a forecasted capital structure for the midpoint of the  
11 attrition year, June 30, 2005. The capital structure includes the permanent  
12 financing that will be consummated in 2005 and the level of short-term debt  
13 that will be in place after the 2005 permanent debt financing is completed.  
14 The proposed capital structure is included in the filing and is attached to  
15 this testimony as Exhibit MAM-1.  
16

17 7. Q. WHY IS THIS LEVEL OF SHORT-TERM DEBT APPROPRIATE FOR  
18 SETTING RATES IN THIS CASE?

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



1 capital components that will be in place to finance the rate base on which  
2 rates will be set in this case.  
3

4 8. Q. HOW WERE THE WEIGHTED COSTS OF LONG-TERM DEBT AND  
5 PREFERRED STOCK DETERMINED?

6 A. The face value of each issue was reduced by the unamortized issuance cost  
7 and the result was divided by the total capital to arrive at the percentage  
8 each series had to total capital. This result was then multiplied by the cost  
9 rate to arrive at the overall cost for both long-term debt and preferred stock.  
10-

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

13 A. The Company reviewed market forecasts to determine a cost rate for short-  
14 term debt that will likely be in place during the rate year.  
15

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

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

1 attracting capital at lower interest rates though the purchasing power of the  
2 entire American System.

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

6 A. Yes. By Order entered October 10, 2000 in Case No. 00-00637, the  
7 Commission authorized the Company to enter into a Financial Services  
8 Agreement with AWCC to issue up to \$30,100,000 of debt obligations.

9  
10 12. Q. WHAT FACTORS REQUIRE THE COMPANY TO SEEK  
11 ADDITIONAL CAPITAL?

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

22  
23 13. Q. DOES THE COMPANY HAVE A BOND SERIES MATURING IN 2005?

24 A. Yes. The \$3.2 million, 8.25% issues matures on June 1, 2005.

1

2

14. Q. WILL THE COMPANY REFINANCE THIS ISSUE?

3

A. Yes the Company will place a \$3.2 million bond issue to replace the 8.25% series.

4

5

6

15. Q. WHAT INTEREST RATE IS THE COMPANY PROPOSING FOR THE 2005 SERIES BOND?

7

8

A. The Company included the \$3.2 million 2005 series bond in its capital structure at an interest rate of 6.76%. Given the current bond market conditions and forecasts the Company will lock the rate in for a 30-year term.

11

12

13

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

14

A. As shown on Exhibit MAM-2 attached to this testimony, the Company calculated the latest two and four-quarter spread between 30-year A-rated utility bonds and 30-year T-bonds. The two and four quarter spreads (73.7 and 80.6 basis points, respectfully) were applied to the 2005 Value Line Publication Forecast (publication of August 27, 2004) for 30-year T-bonds to arrive at a reasonable projection for the interest rates on the 2005 series bond. The Company used the average of the projections based on the latest two and four quarter spreads on which to project the interest rate on its 30-year, 2005 series bond at 6.76%.

22

23

24

17. Q. WHAT IS THE OVERALL COST OF CAPITAL REQUESTED IN THIS

1 CASE?

2 A. The overall weighted cost of capital being requested is 8.00%. The  
3 weighted cost of Long-term debt is 6.26% or a reduction of 39 basis points  
4 from the weighted cost of Long-term Debt approved in the Company's  
5 2003 rate case. The reduction results from the favorable results of the  
6 permanent debt financings completed since the previous rate case and the  
7 continued favorable interest rates and issuance costs obtained through the  
8 utilization of American Water Capital Corp.  
9

10 18. Q. HAVE YOU REVIEWED THE TESTIMONY OF COMPANY WITNESS  
11 VANDER WEIDE IN THIS CASE REGARDING THE COST OF  
12 EQUITY?

13 A. Yes. The Company has elected to request an ROE of 10.7%, which is  
14 within the range of ROE determined by Dr. Vander Weide. The Company  
15 has incorporated the 10.7% ROE into the capital structure and weighted  
16 cost of capital utilized by the Company in its filing. The Company has  
17 reviewed the current bond rate projections and the authorized ROE's in  
18 recent orders across the country and determined that the 10.7% ROE is fair,  
19 reasonable, and representative of the current investor expectations  
20 regarding ROE.  
21

22 **COST OF SERVICE (TARIFF) ALLOCATIONS**  
23

24 19. Q. HAS THE COMPANY PREPARED A COST OF SERVICE STUDY AS

1 PART OF THIS CASE?

2 A. No. The Company proposed a cost of service study in its prior rate case.  
3 The Company did not provide a Tennessee American (TAWC) specific  
4 demand study to support the cost of service study. The interveners in the  
5 prior case were reluctant to move towards the recommendations in that cost  
6 of service study absent the demand study. The Company is in the process  
7 of obtaining the metering devices to perform a TAWC specific demand  
8 study and expects to provide a demand study and cost of service study in its  
9 next rate case.  
10.

11 20. Q. HOW IS THE COMPANY PROPOSING TO ALLOCATE THE  
12 INCREASED RATES IN THIS CASE?

13 A. The Company is proposing to increase rates to all classes of customers  
14 (except public fire protection) in an across the board percentage increase of  
15 9.2% to the metered tariffs.  
16

17 **PUBLIC FIRE PROTECTION**  
18

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

21 A. The public fire protection was a major issue in the previous rate case. The  
22 Company was able to reach agreement with the parties to that case on an  
23 overall revenue requirement and all other issues except for the handling of  
24 public fire protection charges. This issue went before the TRA which

1 eventually set the public fire protection fees at the approximate mid-point  
2 of the current tariffs at the time of the hearing and the full cost of service  
3 determination, allocating the remaining cost of public fire protection to the  
4 remaining customer classifications. In this case the Company is proposing  
5 to eliminate the public fire protection fees, and allocate those fees  
6 proportionately to the remaining customer classifications by the proposed  
7 across the board percentage increase of 9.2%.

8  
9 22. Q. WHY IS THE COMPANY PROPOSING TO ELIMINATE THE PUBLIC  
10 FIRE PROTECTION FEES CHARGED TO THE VARIOUS  
11 MUNICIPALITIES?

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

16  
17 23. Q. WHAT DOES THE AMENDMENT TO THE CODE INDICATE?

18 A. The amendment to the code reads as follows.

19 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF  
20 TENNESSEE:

21 Section 1. Tennessee Code Annotated, Sections 65-5-201, is  
22 amended by adding a new subpart (c) that reads as follows:

23 In fixing rates, joint rates, tolls, fares, charges, or schedules  
24 for service, no privately owned public utility that supplies water to  
25 municipal governments is allowed to charge rates, joint rates, tolls,  
26 fares, charges, or schedules of any kind whatsoever in connection  
27 with fire hydrant service to a municipal government providing fire

1 protection services within the service area. The utility, however,  
2 may recover its costs of providing fire hydrant service by charging  
3 rates, joint rates, tolls, fares, charges or schedules to its non-  
4 municipal government customers within the service area as approved  
5 by the Tennessee regulatory authority. New rates shall take effect as  
6 prescribed by the Tennessee regulatory authority in a rate  
7 proceeding. Such rate proceeding shall be initiated by the utility or  
8 the Tennessee regulatory authority itself. Such rate proceeding shall  
9 be commenced within 120 days following passage of this act. The  
10 utility shall continue to collect its current authorized rates from a  
11 municipality until new rates are placed into effect by the Tennessee  
12 regulatory authority. The municipal government will reimburse the  
13 State of Tennessee for any consequent increase in expenditures to  
14 the State of Tennessee, up to \$50,000, which results directly from  
15 this act.

16 Section 2. The provisions of this act shall not apply to utility  
17 districts heretofore or hereafter created under the "Utility District Act of  
18 1937," compiled in Title 7, chapter 82.

19 Section 3. This act shall take effect upon becoming law, the public  
20 welfare requiring it.

21  
22 23. Q. IS THE COMPANY'S FILING IN COMPLIANCE WITH THE  
23 LEGISLATION?

24 A. Yes. The Company believes its filing requesting elimination of the public  
25 fire hydrant fees is consistent with the legislation. The Company believes  
26 its proposal to spread the cost of public fire protection to the remaining  
27 customer classifications through the proposed across the board percentage  
28 increase of 9.2% is also consistent with the legislation. The Company's  
29 filing of this case on September 10, 2004 is within the 120 days prescribed  
30 by the legislation and will permit the Company to continue charging the  
31 municipalities for the public hydrant fees until the TRA makes its  
32 determination of fair and reasonable rates in this case.

1 **RATE CASE DRIVERS**  
2

3 17. Q. OTHER THAN THE COST OF CAPITAL DESCRIBED ABOVE WHAT  
4 ARE THE COST OF SERVICE COMPONENTS THAT ARE THE  
5 PRIMARY DRIVERS OF THE REQUESTED RATE INCREASE?

6 A. The Company's rate base has increased by approximately \$550,000, but the  
7 Company has transferred its Customer Information System (ORCOM) to  
8 utility plant since the 2003 case. The return on and associated depreciation  
9 of rate base result in an increased revenue requirement of \$496,000 or 25%  
10 of the total requested rate increase. Operation and Maintenance expenses  
11 have increased by \$579,995 or 3.6% from the level recognized in the 2003  
12 rate case. This increase accounts for 29.4% of the total requested rate  
13 increase. The primary drivers of the increase in O&M expenses are pension  
14 expense and production costs. The ERISA pension expense has been  
15 impacted by lower plan earnings and lower discount rates; however, the  
16 pension expense could have been much higher if not for the Pension  
17 Reform Act that was signed into law on April 10, 2004 by President Bush.  
18 The Company has also experienced increased production costs related to  
19 power cost increases and increased chemical costs related to treatment  
20 changes and contract price increases. Mr. Diskin will speak in more detail  
21 about the rate base and O&M expenses in his testimony.  
22  
23  
24



1 AMERICAN WATER REORGANIZATION

2

3 18. Q. YOU MENTIONED EARLIER THAT YOU WOULD DISCUSS THE  
4 REORGANIZATION THAT IS UNDERWAY AT AMERICAN WATER.  
5 PLEASE DESCRIBE THE STATUS OF THAT REORGANIZATION  
6 EFFORT?

7 A. American Water has completed four phases of restructuring its  
8 organization. After the purchase of American Water, Bill Alexander (CEO  
9 of Thames Water) assumed the position of CEO at American Water upon  
10 the retirement of Jim Barr. Mr. Alexander remains Chairman of the Board  
11 of American Water and CEO of Thames Water. Jeremy Pelczer has been  
12 appointed President and Deputy CEO of American Water. The  
13 appointment of Mr. Pelczer has been confirmed by the American Water  
14 Board of Directors.

15

16 19. Q. WHAT OTHER CHANGES HAVE OCCURRED TO DATE IN THE  
17 REORGANIZATION?

18 A. The American Water System operates in 27 states, 4 Canadian providences,  
19 and Puerto Rico. They also are the contract operator for operations in Chile  
20 and Brazil in South America. The new American Water has the  
21 responsibility for all former American Water properties, as well as the  
22 entities operated previously by Thames Water in both North and South  
23 America. The merger of these business units into the new American Water  
24 required a careful review of the alignment of the operating units and it was

1 decided that in order to manage the new American Water effectively a  
2 realignment of the business units was necessary.  
3

4 20. Q. WHAT ARE THE NEW REGIONAL ALIGNMENTS?

5 A. Prior to January 1, 2004, the regulated utilities of American Water operated  
6 under seven regional offices located in Chula Vista, CA; St. Louis, MO;  
7 Granite City, IL; Indianapolis, IN; Hershey, PA; Haddon Heights, NJ; and  
8 Charleston, WV. The new structure will consolidate the seven regions into  
9 four regional offices located in Chula Vista, CA; St. Louis, MO; Hershey,  
10- PA; and Haddon Heights, NJ.  
11

12 21. Q. WHAT REGIONAL OFFICE WILL BE RESPONSIBLE FOR THE  
13 OPERATIONS OF TENNESSEE AMERICAN WATER?

14 A. As the TRA is aware there have been several realignments of the Regions  
15 of American Water prior to the change of control completed on January 10,  
16 2003. Previous realignments of the regions at American Water were driven  
17 by changing business conditions and that is no different in the present  
18 realignment. In fact, in the Company's previous rate cases we explained  
19 that TAW had been realigned to the Southeast Region Office located in  
20 Charleston, WV, after reporting for several years to the Regional Office in  
21 Marlton, NJ. From 1984 to 1994 the Company was aligned with and its  
22 operations were administered from the Southern Division Office located in  
23 Charleston, WV, and after a period of reporting to the Regional Service  
24 Company Office in Marlton, NJ was placed back under the Charleston, WV

1 office in January, 2000. Effective January 1, 2004, the Company and the  
2 operating companies in Pennsylvania, West Virginia, Kentucky, Virginia  
3 and Maryland will come under the direction of the American Water  
4 Regional Office located in Hershey, PA.  
5

6 22. Q. HOW WILL THIS IMPACT TENNESSEE AMERICAN WATER?

7 A. We do not see any significant impact on the Company. The main purpose  
8 of the realignment is to more effectively manage the business and to foster  
9 increased efficiencies and uniform best practices across the various  
10 operating units. The reorganization has created some synergies, and those  
11 synergies will be discussed in the section of this testimony titled  
12 Management Fees. There will be transition costs associated with the  
13 reorganization. To the extent of those savings, the Company intends to  
14 amortize those transition costs until they are fully addressed in a rate filing.  
15 The Company does have a new General Manager, John Watson, who has  
16 replaced Bill L'Ecuyer upon his retirement. Although several other  
17 supervisory employees have elected to retire there are no significant  
18 changes regarding the local management of the Company. The Company  
19 will simply be reporting to a different Regional Office of the Service  
20 Company.  
21

22 23. Q. WHAT IMPACT WILL THE REALIGNMENT HAVE ON THE  
23 SERVICE PROVIDED BY THE COMPANY?

24 A. The Company has undertaken many transitions in the past, and most

1 recently moved to a national shared services organization for customer  
2 service and certain transactional accounting functions. Those initiatives  
3 were undertaken to operate as efficiently and cost effectively as possible,  
4 while at the same time providing enhanced service to our customers. This  
5 realignment is no different, and we believe the realignment will improve  
6 standardization of processes, increase efficiencies, and improve the service  
7 provided to the customers of the Company.

8  
9  
10 **MANAGEMENT FEES**

11  
12 24. Q. PLEASE DESCRIBE THE COMPANY'S FILING REGARDING  
13 MANAGEMENT FEES, THE IMPACT OF THE REORGANIZATION,  
14 AND SYNERGIES GENERATED?

15 A. The Company's filing includes an increase in management fees of  
16 \$555,664 over the level recognized in the 2003 rate filing. The Company is  
17 however requesting a level of 106 employees in this case down from the  
18 119 included in the 2003 rate filing. Almost all of the reduction in staffing  
19 has been handled through attrition and retirements. Under the new  
20 organization the Company's operation departments (network distribution,  
21 engineering, production, water quality, commercial, HR etc.) will report  
22 functionally to regional directors (responsible for two or more states) who  
23 will oversee operational issues and pursue efficiencies through uniform best  
24 practices. Through this structure the Company was able to eliminate some

1 layers of its supervision. The enhanced sharing of knowledge and best  
2 practices across the American System will enable the Company to operate  
3 more efficiently and cost effectively while at the same time improving and  
4 enhancing the service that the Company provides. The Company's labor  
5 expense requested in this case is \$682,783 lower than the level included in  
6 its 2003 rate filing.

7  
8 25. Q. WHAT ARE THE LEVEL OF SAVINGS EMBEDDED IN THIS CASE  
9 FOR THE NET EFFECT OF THE REORGANIZATION?

10 A. When payroll overheads are taken into account, the Company has provided  
11 a synergy savings of over \$400,000 in this case.

12  
13 26. Q. WILL THERE BE ANY DETERIORATION OF SERVICE RESULTING  
14 FROM THE REORGANIZATION?

15 A. No. The Company believes service will be enhanced through the various  
16 technological advances it is pursuing. There has been no reduction in the  
17 hourly staffing, and the Company believes the new organization is better  
18 aligned to focus on improving the already excellent service provided by the  
19 Company.

20  
21 27. Q. DOES THIS MEAN THAT THE COMPANY WILL HAVE NO LOCAL  
22 PRESENCE FOR CUSTOMER SERVICE?

23 A. No. The Company will still have its Corporate Office in Chattanooga.  
24 There will still be a clerical staff to coordinate billing and collections for

1 the entities for which we perform this function. We will still provide  
2 customer contact as required, resolve customer issues relayed from Alton,  
3 and respond to TRA inquiries. In addition, the field personnel will continue  
4 to be available to address the needs of our customers. The local payment  
5 locations will remain unchanged. This transition should be transparent to  
6 the customers.

7  
8 **LOW INCOME TARIFF**  
9

10 28. Q. PLEASE ADDRESS THE LOW INCOME TARIFF BEING PROPOSED  
11 IN THIS CASE?

12 A. The Company is requesting for the first time as part of this case a discount  
13 of 25% on the service charge for households who qualify. The discount  
14 would, if approved, be applied to those customers at or below the federal  
15 poverty levels who register with an independent third party agency. This  
16 discount would generate a \$2.43 reduction in the monthly residential water  
17 bill (for Chattanooga tariff, slightly more for Lookout Mountain tariff) for  
18 those customers who qualify and register for the program at an annual cost  
19 estimated at \$21,000.  
20

21 29. Q. WHO WOULD PAY FOR THE LOWER REVENUE GENERATED BY  
22 THE DISCOUNT TO THOSE WITH LOW INCOMES THAT  
23 REGISTER?

24 A. The Company proposes the cost of the discount be spread across all

1 customer classes. If approved in the manner proposed by the Company,  
2 this tariff would cost each customer only an additional \$2.4 cents per  
3 month.  
4

5 30. Q. WHY SHOULD THE LOW INCOME TARIFF BE APPROVED?

6 A. These types of low income tariffs are present in several states to assist those  
7 customers who have financial difficulty paying utility bills. They have  
8 historically been more prevalent in the energy utility area, but are also now  
9 being implemented for water companies. Pennsylvania American Water  
10 has had a similar tariff in place for a number of years and a similar tariff is  
11 being proposed in West Virginia and Kentucky. The Company believes the  
12 low income tariff will assist those customers who have the most difficulty  
13 in meeting monthly payments and should be approved in this case.  
14  
15

16 31. Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

17 A. Yes.

## **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 28 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 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.**




**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:

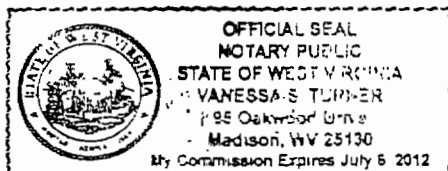
He is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Regulatory Authority, and if present before the Authority and duly sworn, his testimony would set forth in the annexed transcript consisting of 21 pages.

  
Michael A. Miller

Sworn to and subscribed before me  
this 3<sup>rd</sup> day of September 2004.

  
Notary Public

My commission expires July 6, 2012



**Rate of Return Summary**  
**At the Mid-Point of the Attrition Year, June 30, 2006**

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

**Exhibit MAM-1**

Line No.	Class of Capital	Reference	Amount	Percent of Total	Cost Rate	Weighted Cost of Capital
1						
2						
3	Long-term Debt	Schedule 2	\$43,040,110	48.88%	6.28%	3.06%
4						
5	Short-term Debt		4,899,824	5.34%	2.40%	0.13%
6						
7	Preferred Equity	Schedule 3	1,400,000	1.59%	5.00%	0.08%
8						
9	Common Equity					
10	Common Stock		18,537,633	21.05%	10.70%	2.25%
11	Retained Earnings		20,384,057	23.15%	10.70%	2.48%
12						
13	Total Capitalization		88,061,424	100.01%		8.00%
14						
15						
16						
17						
18						
19	Total Common Equity Return Proposed			10.70%		
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

**Tennessee American Water  
Analysis of Interest Rates of Past Year**

**Exhibit MAM-2  
Page 1 of 2**

Value Line Publication Date	As of Market Date	"A" Rated Utility Bonds	30-year Treasury Bonds	10-year Corporate Bonds	10-year Treasury Bonds	13-Week Treasury Bills	Federal Reserve Rate
4/11/2003	4/3/2003	6 780%	4 930%	5 130%	3 910%	1.100%	1 250%
4/18/2003	4/10/2003	6 330%	4 940%	5 160%	3 940%	1 130%	1 250%
4/25/2003	4/16/2003	6 320%	4 910%	5 100%	3 940%	1 680%	1 250%
5/2/2003	4/24/2003	6 330%	4 840%	5 260%	3 920%	1 140%	1 250%
5/9/2003	5/1/2003	6 190%	4 780%	5 070%	3 840%	1 090%	1 250%
5/16/2003	5/8/2003	6 040%	4 880%	4 840%	3 880%	1 090%	1 250%
5/23/2003	5/15/2003	5 810%	4 480%	4 880%	3 530%	1 050%	1 250%
5/30/2003	5/22/2003	5 480%	4 260%	4 400%	3 310%	1 070%	1 250%
6/6/2003	5/29/2003	5 820%	4 340%	4 560%	3 340%	1 080%	1 250%
6/13/2003	6/5/2003	5 740%	4 410%	4 490%	3 340%	1 040%	1 250%
6/20/2003	6/12/2003	5 500%	4 210%	4 280%	3 160%	0 910%	1 250%
6/27/2003	6/19/2003	5 710%	4 410%	4 520%	3 340%	0 810%	1 250%
7/4/2003	6/26/2003	5 500%	4 560%	4 670%	3 540%	0 880%	1 000%
Quarterly Average		5.950%	4.596%	4.780%	3.599%	1.082%	1.231%
7/11/2003	7/2/2003	5 540%	4 580%	4 660%	3 540%	0 880%	1 000%
7/18/2003	7/10/2003	5 540%	4 700%	4 840%	3 680%	0 880%	1 000%
7/25/2003	7/17/2003	5 750%	4 890%	5 070%	3 920%	0 890%	1 000%
8/1/2003	7/24/2003	5 950%	5 090%	5 310%	4 170%	0 910%	1 000%
8/8/2003	7/31/2003	6 290%	5 360%	5 600%	4 410%	0 940%	1 000%
8/15/2003	8/7/2003	6 170%	5 210%	5 360%	4 220%	0 930%	1 000%
8/22/2003	8/14/2003	6 370%	5 400%	5 670%	4 530%	0 950%	1 000%
8/29/2003	8/21/2003	6 240%	5 280%	5 640%	4 480%	0 960%	1 000%
9/5/2003	8/28/2003	6 190%	5 210%	5 560%	4 410%	0 970%	1 000%
9/12/2003	9/4/2003	6 280%	5 310%	5 850%	4 500%	0 960%	1 000%
9/19/2003	9/11/2003	6 190%	5 200%	5 410%	4 310%	0 950%	1 000%
9/26/2003	9/18/2003	6 020%	5 070%	5 260%	4 160%	0 950%	1 000%
10/3/2003	9/25/2003	5 970%	4 990%	5 190%	4 080%	0 930%	1 000%
Quarterly Average		6 038%	5.099%	5.325%	4.184%	0.929%	1.000%
10/10/2003	10/2/2003	5 910%	4 930%	5 130%	3 990%	0 930%	1 000%
10/17/2003	10/9/2003	6 090%	5 210%	5 550%	4 290%	0 900%	1 000%
10/24/2003	10/16/2003	6 150%	5 310%	5 680%	4 460%	0 920%	1 000%
10/31/2003	10/23/2003	6 020%	5 200%	5 450%	4 320%	0 940%	1 000%
11/7/2003	10/30/2003	6 200%	5 190%	5 480%	4 340%	0 950%	1 000%
11/14/2003	11/6/2003	6 070%	5 240%	5 610%	4 410%	0 940%	1 000%
11/21/2003	11/13/2003	5 920%	5 100%	5 480%	4 270%	0 950%	1 000%
11/28/2003	11/20/2003	5 770%	5 010%	5 320%	4 150%	0 940%	1 000%
12/5/2003	11/26/2003	5 830%	5 070%	5 430%	4 250%	0 930%	1 000%
12/12/2003	12/4/2003	5 930%	5 180%	5 530%	4 370%	0 910%	1 000%
12/19/2003	12/11/2003	5 860%	5 100%	5 380%	4 230%	0 690%	1 000%
12/26/2003	12/18/2003	5 670%	4 940%	5 250%	4 130%	0 880%	1 000%
1/2/2004	12/23/2003	5 750%	5 050%	5 380%	4 280%	0 890%	1 000%
1/9/2004	12/30/2003	5 770%	5 080%	5 400%	4 260%	0 930%	1 000%
Quarterly Average		5.924%	5.114%	5.432%	4.266%	0.921%	1.000%

Value Line Publication Date	As of Market Date	"A" Rated Utility Bonds	30-year Treasury Bonds	10-year Corporate Bonds	10-year Treasury Bonds	13-Week Treasury Bills	Federal Reserve Rate
1/16/2004	1/8/2004	5 770%	5 090%	5 370%	4 260%	0 870%	1 000%
1/23/2004	1/15/2004	5 560%	4 860%	5 070%	3 970%	0 870%	1 000%
1/30/2004	1/21/2004	5 550%	4 840%	5 080%	3 950%	0 870%	1 000%
2/6/2004	1/29/2004	5 720%	5 000%	5 250%	4 170%	0 930%	1 000%
2/13/2004	2/5/2004	5 700%	4 980%	5 240%	4 170%	0 930%	1 000%
2/20/2004	2/12/2004	5 660%	4 930%	5 110%	4 040%	0 910%	1 000%
2/27/2004	2/19/2004	5 570%	4 890%	4 980%	4 030%	0 930%	1 000%
3/5/2004	2/27/2004	5 620%	4 910%	5 020%	4 030%	0 950%	1 000%
3/12/2004	3/4/2004	5 580%	4 880%	4 970%	4 020%	0 963%	1 000%
3/19/2004	3/11/2004	5 410%	4 660%	4 640%	3 700%	0 940%	1 000%
3/28/2004	3/19/2004	5 470%	4 700%	4 700%	3 750%	0 930%	1 000%
4/2/2004	3/25/2004	5 490%	4 690%	4 680%	3 740%	0 930%	1 000%
4/4/2003	3/27/2003						
Quarterly Average		5.592%	4.863%	5.009%	3.986%	0.919%	1 000%
4/9/2004	4/1/2004	5 580%	4 800%	4 890%	3 880%	0 930%	1 000%
4/16/2004	4/7/2004	5 800%	5 010%	5 190%	4 160%	0 930%	1 000%
4/23/2004	4/15/2004	5 970%	5 210%	5 420%	4 400%	0 940%	1 000%
4/30/2004	4/22/2004	5 960%	5 190%	5 360%	4 380%	0 950%	1 000%
5/7/2004	4/29/2004	6 060%	5 310%	5 480%	4 540%	0 970%	1 000%
5/14/2004	5/6/2004	6 120%	5 370%	5 580%	4 600%	0 990%	1 000%
5/21/2004	5/13/2004	6 340%	5 560%	5 800%	4 850%	0 990%	1 000%
5/28/2004	5/20/2004	6 170%	5 420%	5 600%	4 700%	1 020%	1 000%
6/4/2004	5/27/2004	6 060%	5 320%	5 500%	4 600%	1 060%	1 000%
6/11/2004	6/3/2004	6 140%	5 410%	5 570%	4 710%	1 180%	1 000%
6/18/2004	6/10/2004	6 180%	5 470%	5 660%	4 790%	1 270%	1 000%
6/25/2004	6/17/2004	6 070%	5 350%	5 590%	4 680%	1 250%	1 000%
7/2/2004	6/24/2004	6 050%	5 340%	5 530%	4 640%	1 270%	1 000%
Quarterly Average		6.040%	5.289%	5.475%	4.533%	1.056%	1.000%

2005  
Projected  
30-Yr. "A"  
Rated Util.  
Bond Rate

2005  
Value Line  
Forecast

Average  
Spread

2004 Value Line Projection (05-28-04):  
"A" Rated Utility Bonds 30-Yr & 10-Yr  
Corp Bonds based on

Latest 2 Qtr Avg Spread	6 74%	6 00%	0 737%
Latest 4 Qtr Avg Spread	6 81%	6 00%	0 806%

***American Water Works Company, Inc.***  
***Pension Plan***

---

**Actuarial Valuation Report**

**Pension Cost for Fiscal Year Ending December 31, 2006**

**Employer Contributions for Plan Year Beginning July 1, 2005**

---

*August 2006*

This report is confidential and intended solely for the information and benefit of the immediate recipient thereof. It may not be distributed to a third party unless expressly allowed under the "Actuarial Certification, Reliances and Distribution" section herein.

## *Table of Contents*

*Management Summary of Valuation Results..... MS*

*Supplemental Information..... SI*

## *Management Summary of Valuation Results*

<i>Financial Results.....</i>	<i>MS-1</i>
<i>Highlights .....</i>	<i>MS-3</i>
<i>FAS 87 Pension Cost and Funded Position.....</i>	<i>MS-6</i>
<i>Employer Contributions and ERISA Funded Position .....</i>	<i>MS-9</i>
<i>Actuarial Certification, Reliances and Distribution.....</i>	<i>MS-10</i>

## Financial Results

This report summarizes financial results for American Water Works Company, Inc.'s Pension Plan based on actuarial valuations as of January 1, 2006 and January 1, 2005 for determination of pension cost and valuations as of July 1, 2005 and July 1, 2004 for determination of contributions.

	January 1, 2006	January 1, 2005
<b>FAS 87 Pension Cost*</b>		
Amount	\$ 40,327,960	\$ 36,845,672
Percent of covered pay	16.7%	15.5%
<b>FAS 87 Funded Position</b>		
Accumulated benefit obligation [ABO]	\$ 656,997,683	\$ 540,094,106
Fair value of assets [FV]	443,880,146	426,115,590
ABO funded percentage [FV ÷ ABO]	67.6%	78.9%
Prepaid (accrued) pension cost	\$ (113,275,901)	\$ (93,174,121)
	July 1, 2005	July 1, 2004
<b>Employer Contributions</b>		
Minimum required	\$ 0	\$ 971,408
Percent of covered pay	0.0%	0.4%
Maximum deductible	\$ 135,276,937	\$ 68,348,605
Percent of covered pay	54.3%	28.7%
<b>ERISA Funded Position</b>		
Actuarial accrued liability [AAL]	\$ 506,998,446	\$ 430,686,547
Actuarial value of assets [AV]	465,911,015	440,667,127
AAL funded percentage [AV ÷ AAL]	91.9%	102.3%
Current liability funded percentage:		
▶ Selected interest rate	80.7%	90.0%
▶ Highest allowable interest rate	80.7%	90.0%
▶ Maximum deductible interest rate	80.7%	90.0%

\* All FAS 87 results shown in this report were prepared before application of purchase accounting due to the sale of American Water to RWE.



## **Discussion of Financial Results**

The financial results of American Water Works Company, Inc.'s Pension Plan were affected by the following factors:

- ▶ Investment returns during the prior year were lower than expected, which decreased the funded percentage and increased the pension cost.
- ▶ Long-term bond yields decreased during the prior year resulting in a lower FAS 87 discount rate, which increased the pension cost.
- ▶ The benefits valued were changed for pension cost purposes as described on page SI-27, which decreased the pension cost.
- ▶ An assumption study was performed during 2005 that resulted in many economic and demographic assumption changes as described on page SI-13. These assumption changes had an overall effect of decreasing the pension cost.
- ▶ The Pension Funding Equity Act of 2004 (PFEA) contains a number of funding relief provisions which are scheduled to expire at the end of the 2005 plan year. This Act raised the ceiling on interest rates used to calculate current liability, and upon expiration, lower interest rate requirements will tend to increase cash contribution requirements and PBGC Variable Rate Premiums.
- ▶ The Pension Funding Equity Act also changed the interest rate used to calculate PBGC variable rate premiums, from 100% of the rate on 30-year Treasury bonds to 85% of the new corporate bond index.

## Highlights

### Economic Assumptions

The discount rate for pension cost purposes is the rate at which the pension obligations could be effectively settled. This rate is based on high-grade bond yields, after allowing for call and default risk. The following bond yields were considered in the selection of the economic assumptions:

	<b>December 31, 2005</b>	<b>December 31, 2004</b>
30-year Treasury	4.54%	4.83%
Merrill Lynch 10+ High Quality	5.68%	5.62%
Moody's Aa	5.41%	5.66%
Moody's Baa	5.74%	5.43%

The assumed rate of return on assets for pension cost purposes is the weighted average of expected long-term asset return assumptions. The salary increase rate is a long-term rate based on current expectations of future pay increases. The assumptions for pension cost purposes are:

	<b>December 31, 2005</b>	<b>December 31, 2004</b>
Discount rate	5.65%	6.00%
Rate of return on assets	8.25%	8.75%
Salary increase rate	Age-graded scale averaging 4.25%	Age-graded scale averaging 4.75%

Assumptions used to determine statutory contribution limits must be reasonable taking into account the experience of the plan and reasonable expectations. The discount rate used to determine the normal cost and actuarial accrued liability is based on the long-term expected return on assets. The current liability interest rates must be within permissible ranges as issued by the IRS. These ranges and assumptions for contribution purposes are:

	<b>July 1, 2005</b>	<b>July 1, 2004</b>
Discount rate for normal cost and actuarial accrued liability	8.25%	9.00%
Current liability interest rates:		
▶ Permissible range	4.47% to 5.90%	4.65% to 6.32%
▶ Selected rate	5.90%	6.32%
Salary increase rate	Age-graded scale averaging 5.00%	Age-graded scale averaging 5.00%

**Demographic Assumptions**

The cost of providing plan benefits depends on demographic factors such as retirement, mortality, and turnover. Demographic assumptions used in the valuation were selected to reflect the experience of the covered population and reasonable expectations. If actual experience is more favorable than assumed, future plan costs will be lower. Alternatively, if actual experience is less favorable than assumed, future plan costs will be higher.

An assumption study was performed during 2005. As a result, many demographic assumptions were changed as of January 1, 2006 for 2006 accounting purposes. The changes in demographic assumptions, other than termination will not be reflected for ERISA funding purposes until July 1, 2006. These changes are described on page SI-13.

American Water Works Company, Inc. had 4,564 active participants covered under this pension plan as of July 1, 2005 versus 4,423 for the prior year. Covered payroll increased 1.7% from the prior year.

The average compensation increase for the participants who remained active since July 1, 2004 was about 4.3%.

**Assets**

In fiscal 2005, the fund recorded a 4.7% investment return, while the capital markets performed as follows:

Large equities [S&P 500]	4.91%
Intermediate/small equities [Russell 2500]	8.11%
Non-U.S. equities [EAFE]	14.02%
Bonds [Lehman Brothers Aggregate]	2.43%
Cash equivalents [Citi 3 Month T-Bill]	3.00%

## Changes in Benefits Valued

The following plan changes are effective January 1, 2006 and are reflected in the 2006 accounting results. They are not reflected in the July 1, 2005 funding results.

- ▶ The pension plan is closed for most union and all nonunion employees hired on or after January 1, 2006.
- ▶ For most union employees hired on or after January 1, 2001, their accrued benefits as of December 31, 2005 are frozen, and this benefit is payable as a lump sum at termination or retirement.
- ▶ Long Island union employees have negotiated an update to the career pay benefit as of December 31, 2005 for any employee that retires between January 1, 2006 and December 31, 2007.
- ▶ Single employee can elect non-spouse beneficiary.

## Legislative Changes

There were no significant legislative changes impacting the plan since the prior year.

## PBGC Reporting Requirements

Participants must be notified of the plan's funded position if the plan is required to pay a PBGC variable premium and the funded percentage is below a specified "gateway" percentage. No participant notice is required for 2005 because although the plan was required to pay a PBGC variable premium for 2005 but the plan's current liability funded percentage is above the "gateway" percentage for 2005.

Additional financial and actuarial information must be provided to the PBGC if, at the end of the year, all defined benefit plans within the controlled group have an unfunded vested liability of \$50 million or more using assumptions mandated by the PBGC. As of June 30, 2005, unfunded vested liabilities for all defined benefit plans within the controlled group were more than \$50 million. Consequently, additional financial and actuarial information was provided to the PBGC.

## **FAS 87 Pension Cost and Funded Position**

Pension cost is the amount recognized in AW's financial statement as the cost of the pension plan and is determined in accordance with Financial Accounting Standard No. 87. The fiscal 2006 pension cost for the plan is \$40,327,960, or 16.7% of covered pay.

Under FAS 87, an important measure of funded position is a comparison of the fair value of assets to the accumulated benefit obligation (ABO). The ABO is the present value of accumulated benefits based on service and pay as of the measurement date.

American Water's ABO funded percentage is 67.6% as of January 1, 2006, based on the fair value of assets of \$443,880,146 and an ABO of \$656,997,683. AW's balance sheet must reflect a minimum liability equal to the unfunded ABO for each pension plan with a funded percentage (fair value of assets divided by ABO) under 100%. To the extent that the minimum liability exceeds the accrued pension cost, an additional liability is recorded together with an offsetting intangible asset and/or a reduction in shareholder' equity (accumulated other comprehensive income).

The January 1, 2006 valuation results shown on the 2005 year-end disclosure indicate an additional minimum liability of \$99,841,636 and accumulated other comprehensive income of \$96,944,709 .

### **Change in Pension Cost and Funded Position**

The pension cost increased from \$36,845,672 in fiscal 2005 to \$40,327,960 in fiscal 2006 because:

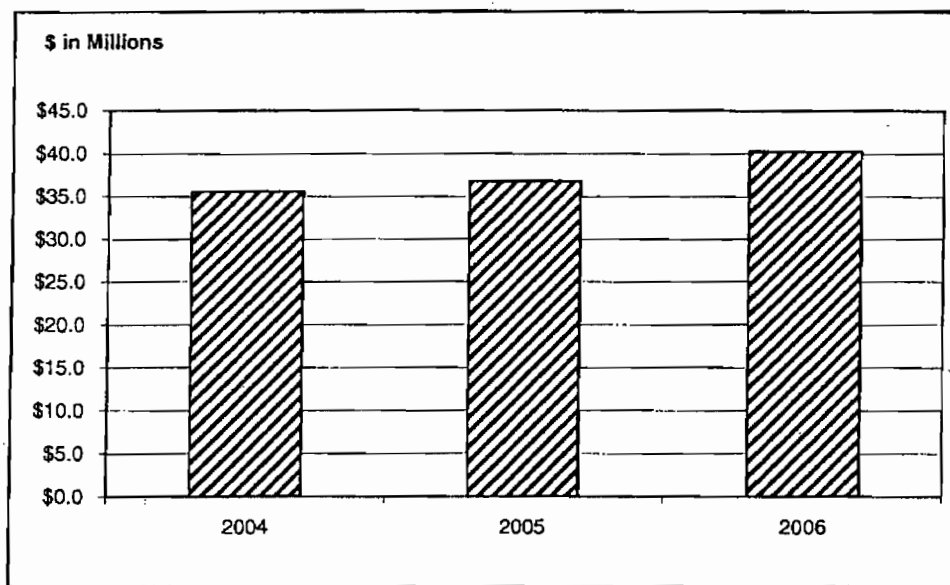
- ▶ Expected changes, based on prior year's assumptions, methods, plan provisions, and contributions, decreased the pension cost \$406,141.
- ▶ Noninvestment experience decreased the pension cost \$2,130,111.
- ▶ The return on the fair value of plan assets was 4.7% in fiscal 2005, which increased the pension cost \$3,100,727.
- ▶ Assumption changes increased the pension cost \$4,182,137.
- ▶ Changes in benefits valued decreased the pension cost \$1,264,324.

The ABO funded percentage decreased from 78.9% to 67.6%.

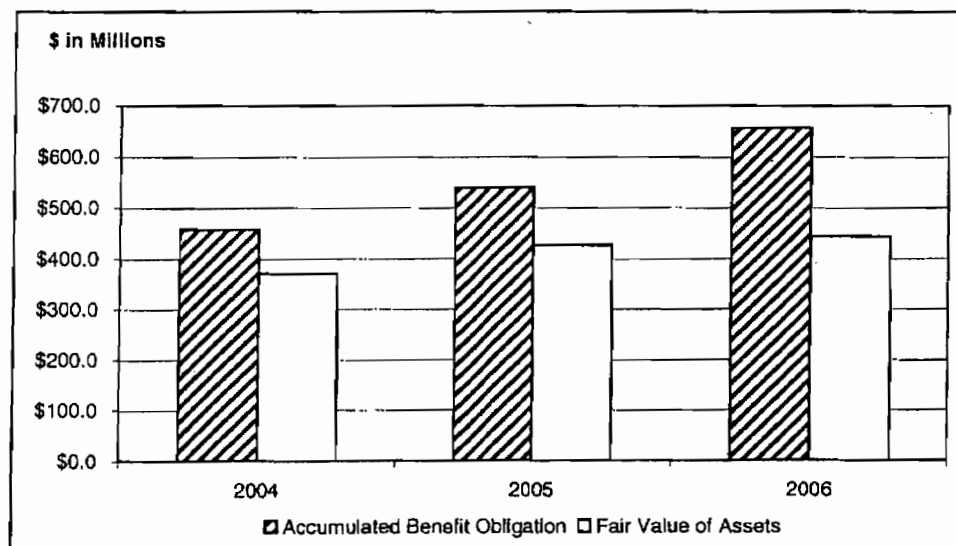
## History of Pension Cost and Funded Position

The following charts show the history of the plan's pension cost and ABO funded position:

### History of Pension Cost



### History of the Accumulated Benefit Obligation and Fair Value of Assets



---

**History of Pension Cost and ABO Funded Percentage**

----- Pension cost -----				
<i>Fiscal year</i>	<i>Amount</i>	<i>Percent of covered pay</i>	<i>ABO funded percentage</i>	<i>Discount rate</i>
2006	\$ 40,327,960	16.7%	67.6%	5.65%
2005	36,845,672	15.5	78.9	6.00
2004	35,623,816	14.9	80.8	6.25

---

## **Employer Contributions and ERISA Funded Position**

American Water's funding policy is to contribute an amount equal to the minimum required contribution under ERISA. American Water may increase its contribution above the minimum if appropriate to its tax and cash position and the plan's funded position. For 2005, the minimum required contribution is \$0. The maximum deductible contribution under the Internal Revenue Code is \$135,276,937, or 54.3% of covered pay.

The funded position, on a contribution basis, is measured by comparing the actuarial value of assets with the actuarial accrued liability (AAL). The actuarial value of assets is a smoothed value that recognizes investment gains and losses over time. The AAL is the funding target, under ERISA, on which the employer contribution limits are based. As the funded percentage for a plan approaches or exceeds 100%, contributions to the plan may be restricted.

The plan's funded percentage (actuarial value of assets divided by AAL) is 91.9% as of July 1, 2005. This percentage is based on an actuarial value of assets of \$465,911,015 and an AAL of \$506,998,446.

## **Change in Contribution Requirements and Funded Position**

The minimum required contribution decreased from \$971,408 in 2004 to \$0 in 2005 because contributions greater than required were made to the plan for the 2004 plan year, which resulted in a credit balance that offsets minimum funding requirements.

## **Current Liability**

An alternative measure of funded position compares the actuarial value of assets with the plan's current liability. The current liability is the present value of benefits accrued to the valuation date reflecting IRS restrictions on interest and mortality assumptions.

If the current liability funded percentage is below 100%, quarterly contributions may be required in the following plan year. The plan's current liability funded percentage is 80.7% as of July 1, 2005.

If the current liability funded percentage using the highest allowable interest rate is below 90%, additional funding requirements, as well as employee notification requirements, may be triggered.

## **Timing of Contributions**

There is no minimum required contribution for the 2005 plan year.

The credit balance as of June 30, 2005 will be sufficient to cover any required quarterly contributions for the 2006 plan year based on this year's valuation results



## **Actuarial Certification, Reliances and Distribution**

American Water Works Company, Inc. retained Towers Perrin to perform a valuation of its pension plan for the purpose of determining (1) its pension cost in accordance with FAS 87 and (2) the minimum required and maximum tax-deductible contributions in accordance with ERISA and allowed by the Internal Revenue code. This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The consulting actuaries are members of the Society of Actuaries and other professional actuarial organizations and meet their "General Qualification Standard for Prescribed Statements of Actuarial Opinions" relating to pension plans.

In preparing the results presented in this report, we have relied upon information provided to us regarding plan provisions, plan participants, and plan assets. We have reviewed this information for overall reasonableness and consistency, but have neither audited nor independently verified this information. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information.

The actuarial assumptions and methods employed in the development of the contribution limits have been selected by Towers Perrin, with the concurrence of the plan sponsor. The Internal Revenue Code requires the use of assumptions "each of which is reasonable (taking into account the experience of the plan and reasonable expectations)" and "which, in combination, offer the actuary's best estimate of anticipated experience under the plan."

The results shown in this report have been developed based on actuarial assumptions that are considered to be reasonable and within the "best-estimate range" as described by the Actuarial Standards of Practice. Other actuarial assumptions could also be considered to be reasonable and within the best-estimate range. Thus, reasonable results differing from those presented in this report could have been developed by selecting different points within the best-estimate ranges for various assumptions.

The information contained in this report was prepared for the internal use of American Water Works Company, Inc. and its auditors in connection with our actuarial valuation of the pension plan. It is neither intended nor necessarily suitable for other purposes. American Water Works Company, Inc. may also distribute this actuarial valuation report to the appropriate authorities who have the legal right to require American Water Works Company, Inc. to provide them this report, in which case American Water Works Company, Inc. will use best efforts to notify Towers Perrin in advance of this distribution. Further distribution to, or use by, other parties of all or part of this report is expressly prohibited without Towers Perrin's prior written consent.



Cynthia C. King, FSA, MAAA, EA



Sheri DeCristofaro, FSA, MAAA, EA

Towers Perrin

August 2006

## *Supplemental Information*

<i>Asset Values</i> .....	<i>SI-1</i>
<i>Basic Results for Pension Cost</i> .....	<i>SI-2</i>
<i>Pension Cost</i> .....	<i>SI-4</i>
<i>Present Value of Accumulated Plan Benefits for FAS 35</i> .....	<i>SI-5</i>
<i>Basic Results for Employer Contributions</i> .....	<i>SI-6</i>
<i>Minimum Required Employer Contribution</i> .....	<i>SI-7</i>
<i>Maximum Deductible Employer Contribution</i> .....	<i>SI-8</i>
<i>Actuarial Assumptions and Methods</i> .....	<i>SI-9</i>
<i>Participant Data</i> .....	<i>SI-15</i>
<i>Plan Provisions</i> .....	<i>SI-19</i>

## Asset Values

### Asset Values for Calculating Pension Cost

Fair value, excluding contributions receivable:

▶ As of January 1, 2005	\$ 426,115,590
▶ Contributions	18,049,865
▶ Disbursements	(20,119,771)
▶ Investment return	<u>19,834,462</u>
▶ As of January 1, 2006	\$ 443,880,146
▶ Rate of return	4.7%

Market-related value:

▶ As of January 1, 2005	\$ 426,115,590
▶ As of January 1, 2006	443,880,146
▶ Rate of return	4.7%

### Asset Values for Calculating Employer Contributions

Market value, including contributions receivable:

▶ As of July 1, 2004	\$ 412,329,047
▶ Contributions	29,450,000
▶ Disbursements	(21,020,617)
▶ Investment return	<u>32,728,346</u>
▶ As of July 1, 2005	\$ 453,486,776
▶ Rate of return	7.9%

Actuarial value:

▶ As of July 1, 2004	\$ 440,667,127
▶ As of July 1, 2005	465,911,015
▶ Rate of return	3.8%
▶ Rate of return (assuming mid-year cash flow) for Schedule B of Form 5500	3.8%

## Basic Results for Pension Cost

	January 1, 2006	January 1, 2005
<b>Service Cost</b>	\$ 21,951,921	\$ 24,675,893
<b>Obligations</b>		
Accumulated benefit obligation [ABO]:		
▶ Participants currently receiving benefits	\$ 252,290,000	\$ 176,845,673
▶ Deferred inactive participants	74,150,708	53,211,807
▶ Active participants	<u>330,556,975</u>	<u>310,036,626</u>
Total ABO	\$ 656,997,683	\$ 540,094,106
Obligation due to future salary increases	<u>104,552,154</u>	<u>139,308,382</u>
Projected benefit obligation [PBO]	\$ 761,549,837	\$ 679,402,488
<b>Assets</b>		
Fair value [FV]	\$ 443,880,146	\$ 426,115,590
Unrecognized investment losses (gains)	<u>0</u>	<u>0</u>
Market-related value	\$ 443,880,146	\$ 426,115,590
<b>Funded Position</b>		
Unfunded PBO	\$ 317,669,691	\$ 253,286,898
Minimum liability [ABO – FV, minimum zero]	213,117,537	113,978,516
<b>Key Economic Assumptions</b>		
Discount rate	5.65%	6.00%
Rate of return on assets	8.25%	8.75%
Salary increase rate	Age-graded scale averaging 4.25%	Age-graded scale averaging 4.75%

**Fiscal 2005****Development of Prepaid (Accrued)  
Pension Cost as of January 1, 2006**

Prepaid (accrued) pension cost, as of January 1, 2005	\$ (93,174,121)
Change during fiscal 2005:	
▶ Income (cost) recognized	(36,845,672)
▶ Employer contributions	18,049,865
▶ Effect of curtailments, settlements, and termination benefits	0
▶ Adjustment	<u>(1,305,973)</u>
Prepaid (accrued) pension cost, as of January 1, 2006	\$ (113,275,901)

**January 1, 2006****January 1, 2005****Reconciliation of Funded Status**

Funded status [FV – PBO]	\$ (317,669,691)	\$ (253,286,898)
Unrecognized net actuarial loss (gain)	201,496,863	155,719,034
Unrecognized prior service cost (credit)	2,896,927	4,396,400
Unrecognized transition obligation (asset)	<u>0</u>	<u>(2,657)</u>
Prepaid (accrued) pension cost	\$ (113,275,901)	\$ (93,174,121)

**Balance Sheet Effects**

Prepaid pension cost	\$ 0	\$ 0
Accrued pension cost	(113,275,901)	(93,174,121)
Additional minimum liability	(99,841,636)	(20,804,395)
Intangible asset	2,896,927	4,396,400
Accumulated other comprehensive income	<u>96,944,709</u>	<u>16,407,995</u>
Balance sheet effect	\$ (113,275,901)	\$ (93,174,121)

The Balance Sheet Effects shown above differ from the amounts disclosed in AW's 2005 financial statements because the amount of the intangible asset was updated to reflect actual unrecognized amounts.

The accumulated other comprehensive income has not been tax effected. Any tax effect should be separately recognized.

## Pension Cost

	Fiscal 2006	Fiscal 2005
<b>Pension Cost</b>		
Service cost	\$ 21,951,921	\$ 24,675,893
Interest cost	43,630,659	41,731,515
Expected return on assets	(37,881,728)	(36,541,576)
Amortization:		
▶ Transition obligation (asset)	0	(2,657)
▶ Prior service cost (credit)	556,199	656,098
▶ Net loss (gain)	<u>12,070,909</u>	<u>6,326,399</u>
Pension cost	\$ 40,327,960	\$ 36,845,672
Percent of covered pay	16.7%	15.5%
Per active participant	\$ 8,836	\$ 8,330

## Change in Pension Cost

Pension cost for fiscal 2005	\$ 36,845,672
Change from fiscal 2005 to fiscal 2006:	
▶ Expected based on prior valuation	(406,141)
▶ Loss (gain) from noninvestment experience	(2,130,111)
▶ Loss (gain) from asset experience	3,100,727
▶ Assumption changes	4,182,137
▶ Plan amendments	<u>(1,264,324)</u>
Pension cost for fiscal 2006	\$ 40,327,960

## Present Value of Accumulated Plan Benefits for FAS 35

	July 1, 2005	July 1, 2004
<b>Actuarial Present Value of Accumulated Plan Benefits</b>		
Vested benefits:		
▶ Participants currently receiving benefits	\$ 197,720,725	\$ 137,025,321
▶ Other participants	<u>246,473,199</u>	<u>204,245,341</u>
▶ Total vested benefits	\$ 444,193,924	\$ 341,270,662
Nonvested benefits	<u>11,088,131</u>	<u>11,084,534</u>
Total accumulated benefits	\$ 455,282,055	\$ 352,355,196
Market value of assets	453,486,776	412,329,047

### Key Assumptions

Interest rate	8.25%	9.00%
Average retirement age	62	62
Mortality	1983 GAM Table (sex distinct rates)	1983 GAM Table (sex distinct rates)

### Change in Actuarial Present Value of Accumulated Plan Benefits

Actuarial present value of accumulated plan benefits as of July 1, 2004

\$ 352,355,196

Change from 2004 to 2005:

▶ Additional benefits accumulated (including the effect of noninvestment experience)	32,642,013
▶ Interest due to decrease in the discount period	30,903,253
▶ Benefits paid	(18,367,084)
▶ Assumption changes	57,319,070
▶ Plan amendments	<u>429,607</u>

Actuarial present value of accumulated plan benefits as of July 1, 2005

\$ 455,282,055

## Basic Results for Employer Contributions

	July 1, 2005	July 1, 2004
<b>Normal Cost and Liabilities</b>		
Normal cost	\$ 13,986,879	\$ 13,657,284
Actuarial accrued liability [AAL]	506,998,446	430,686,547
Current liability [CL]:		
▶ Minimum funding	577,562,197	489,578,232
▶ Highest allowable	577,562,197	489,578,232
▶ Maximum deductible	577,562,197	489,578,232
<b>Assets</b>		
Market value	\$ 453,486,776	\$ 412,329,047
Unrecognized investment losses (gains)	12,424,239	28,338,080
Actuarial value [AV]	\$ 465,911,015	\$ 440,667,127
<b>Funded Position</b>		
Unfunded actuarial accrued liability [AAL – AV]	\$ 41,087,431	\$ (9,980,580)
AAL funded percentage [AV ÷ AAL]	91.9%	102.3%
CL funded percentage:		
▶ Selected interest rate	80.7%	90.0%
▶ Highest allowable interest rate	80.7%	90.0%
▶ Maximum deductible	80.7%	90.0%
<b>Key Economic Assumptions</b>		
Discount rate for normal cost and actuarial accrued liability	8.25%	9.00%
Current liability interest rate:		
▶ Selected	5.90%	6.32%
▶ Highest allowable	5.90%	6.32%
▶ Maximum deductible interest rate	5.90%	6.32%
Salary increase rate	Age-graded scale averaging 5.00%	Age-graded scale averaging 5.00%



## Minimum Required Employer Contribution

	July 1, 2005	July 1, 2004*
<b>Minimum Required Employer Contribution</b>		
Normal cost	\$ 13,986,879	\$ 13,657,284
Amortization amounts	12,840,988	357,751
Interest adjustments	2,213,299	1,261,353
Additional funding charge	0	0
Credit balance with interest	<u>(31,020,012)</u>	<u>(14,304,980)</u>
Minimum required contribution before full funding limit	\$ 0	\$ 971,408
Minimum required contribution after full funding limit	0	971,408

Additional details regarding the calculation of the minimum required employer contribution may be obtained from the Form 5500 Schedule B filings and attachments.

\* The July 1, 2004 contribution results reflect the merger of the Northern Illinois Water Corporation and Long Island Water Corporation pension plans into the American Water pension plan.

The credit balance as of June 30, 2005 will be sufficient to cover any required quarterly contributions for the 2006 plan year based on this year's valuation results.

## Maximum Deductible Employer Contribution

	July 1, 2005	July 1, 2004
<b>Maximum Deductible Employer Contribution</b>		
Maximum deductible contribution before adjustments	\$ 21,333,259	\$ 14,886,439
Allowable deduction, the greatest of:		
▶ Maximum deductible contribution after full funding limit	21,333,259	14,886,439
▶ Contribution necessary to satisfy minimum funding standards	0	971,408
▶ Contribution necessary to fund 100% of current liability	135,276,937	68,348,605
Maximum deductible contribution	135,276,937	68,348,605

The timing of this deduction may be affected by the uniform capitalization rules. Deductibility of contributions to a defined contribution plan maintained for the same employees may be affected by the 25% of pay limitation for defined benefit and defined contribution plans combined.

The maximum deductible contribution depends on the selected current liability interest rate. The permissible range for the current liability interest rate for the plan year beginning July 1, 2005 is 4.47% to 5.90%. In the above table, the contribution necessary to fund 100% of current liability is \$135,276,937, which is based on a current liability interest rate of 5.90%. This does not reflect the 25% of pay combined plan limitation. Please note that depending on the current liability interest rate selected and the resulting current liability funded percentage, additional requirements may be required to plan participants.

## Actuarial Assumptions and Methods

	Pension Cost	Contributions
<b>Economic Assumptions</b>		
Discount rate	5.65%	8.25%
Return on assets	8.25%	N/A
Current liability interest rate:		
▶ Minimum funding	N/A	5.90%
▶ Highest allowable	N/A	5.90%
▶ Maximum deductible contribution	N/A	5.90%
Lump sum conversion interest rate	4.65%	N/A
Annual rates of increase in:		
▶ Compensation		
Sample rates:		
	Age	% Increase
	25	5.85%
	35	4.45%
	40	4.15%
	45	3.95%
	55	3.65%
	Average rate	4.25%
▶ Future Social Security wage bases	3.75%	4.50%
▶ Indexed limits on compensation and benefits	3.25%	N/A

## Demographic Assumptions

### Mortality

- Pension cost For healthy participants, RP 2000 table projected to 2015 with phase-out reflecting a 50% white collar and a 50% blue collar mortality blend.
- Contributions For healthy participants, 1983 GAM table. Rates vary by age and gender.  
For disabled participants, select and ultimate mortality rates from the PBGC disabled mortality for Social Security recipients.

### Termination

Rates varying by age

Sample rates:

Age	<u>Service</u>			
	0-4	5-9	10-14	Ultimate
25	0.100	0.090	0.080	0.060
35	0.070	0.065	0.060	0.040
40	0.065	0.055	0.050	0.040
45	0.060	0.050	0.040	0.030
55	0.000	0.000	0.000	0.000

Sample termination rates for Alton and Pensacola Call Center Employees:

Age	<u>Service</u>						Ultimate
	0,1	2	3	4,5	6,7	8,9	
25	0.35	0.30	0.25	0.20	0.15	0.10	0.05
35	0.35	0.30	0.25	0.20	0.15	0.10	0.05
40	0.35	0.30	0.25	0.20	0.15	0.10	0.05
45	0.35	0.30	0.25	0.20	0.15	0.10	0.05
55	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### Disability

50% of 1987 CGDT (shown below)

Sample annual rates of disablement:

Age	Male	Female
25	.0005	.0006
35	.0007	.0012
40	.0010	.0015
45	.0018	.0023
55	.0059	.0053

## Retirement

## Pension cost retirement rates:

Rates varying by age averaging 61; terminated vested participants, age 65

<i>Age</i>	<i>Rate</i>	<i>Age</i>	<i>Rate</i>
55	.10	63	.40
56	.07	64	.40
57	.07	65	.45
58	.07	66	1.00
59	.10	67	1.00
60	.10	68	1.00
61	.10	69	1.00
62	.60	70	1.00

## Contributions retirement rates:

Rates varying by age averaging 62; terminated vested participants, age 65

<i>Age</i>	<i>Rate</i>	<i>Age</i>	<i>Rate</i>
55	.05	63	.40
56	.02	64	.40
57	.02	65	.80
58	.02	66	.10
59	.02	67	.30
60	.05	68	.30
61	.04	69	.10
62	.60	70	1.00

Form of payment	Life annuity. Normal cost and actuarial accrued liability have been increased by .2% for the two-year "pop-up" provision.
Administrative expense	\$260,000 is added to the plan's normal cost.
Percent married	80% males, 50% females, assumed married.
Spouse age	Wife three years younger than husband
Valuation pay	Annualized rate of pay on prior July 1 plus 100% of the target incentive award  Annual rates of pay are increased 3% for salaried nonexempt employees to approximate total company overtime, and 8% for hourly employees.
Maximum benefit	For contribution purposes: \$170,000 for 2005, payable at age 62.  For accounting purposes: \$175,000 for 2006 (with other changes enacted by EGTRAA), increasing with inflation.
Maximum pensionable earnings	For contribution purposes: \$210,000 for 2005  For accounting purposes: \$220,000 for 2006, increasing with inflation.

## Methods

### Pension cost:

- ▶ Measurement date                      January 1, 2006 based on July 1, 2005 participant data
- ▶ Service cost and projected benefit obligation      Projected unit credit
- ▶ Market-related value of assets                      Fair value
- ▶ Amortization of unrecognized amounts:
  - Prior service cost (credit)                      Increase in PBO resulting from a plan amendment is amortized on a straight-line basis over the expected average remaining service of active participants.
  - Net loss (gain)                      Net loss (gain) in excess of 10% of the greater of the PBO or the market-related value of assets is amortized on a straight-line basis over the expected average remaining service of active participants.

### Contributions:

- ▶ Valuation date                      July 1, 2005
- ▶ Normal cost and actuarial accrued liability      Projected unit credit
- ▶ Actuarial value of assets                      A preliminary actuarial value of assets as of the valuation date is determined as the market value of assets as of the valuation date less the following percentage applied to investment gains (losses) from previous years:
  - 80% for the year ending on the valuation date
  - 60% for the previous year
  - 40% for the second previous year
  - 20% for the third previous year

The preliminary actuarial value is then adjusted to be within a corridor of 80% to 120% of the market value.
- ▶ Funding policy                      The company's funding policy is to contribute an amount at least equal to the minimum required contribution under ERISA. American Water Works may increase its contribution above the minimum, if appropriate to its tax and cash position and the plan's funded status.

## Benefits Not Valued

All benefits described in the Plan Provisions section of this report were valued. Towers Perrin has reviewed documentation provided by American Water Works and is not aware of any significant benefits that were not valued.

**Change in Assumptions and Methods Since Prior Valuation****Pension cost**

The discount rate for benefit obligations was changed from 6.00% to 5.65%.

The expected return on asset assumption was decreased from 8.75% to 8.25%.

The salary increase assumption was decreased 0.5% at every age, decreasing the average rate from 4.75% to 4.25%.

The annual rate of increase for future Social Security wage bases was decreased from 4.25% to 3.75%.

The annual rate of increase in indexed limits or compensation and benefits was decreased from 3.75% to 3.25%.

The retirement and termination assumptions were updated to better reflect plan experience.

The healthy mortality table assumption was updated from 1983 GAM Male and Female to RP-2000 projected to 2015 with phase-out reflecting a 50% white collar and 50% blue collar mortality blend.

The marriage assumption was changed from an assumption that 90% males and 60% females are expected to be married at retirement to an assumption that 80% males and 50% females are expected to be married at retirement.

The overtime assumption used to determine pensionable pay was changed for union employees from 3% to 8%.

**Contributions**

The current liability interest rate for minimum required funding purposes was changed from 6.32% to 5.90%, which is within the permissible range.

The accrued liability discount rate was decreased from 9.00% to 8.25%.

The termination assumption was updated to better reflect plan experience.

The overtime assumption used to determine pensionable pay was changed for union employees from 3% to 8%.

**Data Sources**

Towers Perrin used asset data supplied by the trustee. American Water Works furnished participant data as of July 1, 2005. In addition, accrued pension costs were furnished as of December 31, 2005. Data were reviewed for reasonableness and consistency. Towers Perrin is not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations.



## Participant Data

	July 1, 2005	July 1, 2004
<b>Active</b>		
Number	4,564	4,423
Average age	45.5	46.2
Average past service	14.9	16.1
Average future service	10.4	13.7
Covered pay:		
▶ Total	\$ 242,130,521	\$ 238,076,688
▶ Average	53,052	53,827
<b>Deferred Inactive</b>		
Number	1,779	1,613
Average age	48.4	48.0
Annual benefits:		
▶ Total	\$ 14,789,036	\$ 12,029,243
▶ Average	8,313	7,458
<b>Currently Receiving Benefits</b>		
Number	1,332	1,103
Average age	67.2	67.0
Annual benefits:		
▶ Total	\$ 20,759,695	\$ 15,611,164
▶ Average	15,585	14,153
<b>Total Participants Included in Valuation</b>		
Number	7,675	7,139

## Analysis of Inactive Participant Data

### Deferred Inactive

<i>Age last birthday</i>	<i>Number</i>	<i>Annual benefit</i>	<i>Average annual benefit</i>
< 40	262	\$ 1,298,804	\$ 4,957
40 – 49	766	6,159,903	8,042
50 – 54	381	4,497,483	11,804
55 – 59	203	1,905,730	9,388
60 – 64	134	721,774	5,386
> 64	<u>33</u>	<u>205,342</u>	6,222
Total	1,779	\$ 14,789,036	\$ 8,313

### Currently Receiving Benefits

<i>Age last birthday</i>	<i>Number</i>	<i>Annual benefit</i>	<i>Average annual benefit</i>
< 55	40	\$ 399,208	\$ 9,980
55 – 59	243	4,187,527	17,233
60 – 64	366	7,435,174	20,315
65 – 69	280	4,711,123	16,825
70 – 74	132	1,798,795	13,627
75 – 79	111	1,128,411	10,166
80 – 84	97	812,923	8,381
> 84	<u>63</u>	<u>286,534</u>	4,548
Total	1,332	\$ 20,759,695	\$ 15,585

# ANALYSIS OF ACTIVE PARTICIPANT DATA BY AGE, SERVICE AND EARNINGS AS OF 07/01/2005

-----Completed Years of Service-----											
Age Last Birthdate	0-4	5-9	10-14	15-19	20-24	25-29	30-34	Over 34	Total		
15-19	Number	5									5
	Tot earnings	153,184	0	0	0	0	0	0	0	0	153,184
	Avg earnings	30,637	0	0	0	0	0	0	0	0	30,637
20-24	Number	75	2	0	0	0	0	0	0	0	77
	Tot earnings	2,496,880	96,015	0	0	0	0	0	0	0	2,592,895
	Avg earnings	33,292	48,008	0	0	0	0	0	0	0	33,674
25-29	Number	204	36	3	0	0	0	0	0	0	243
	Tot earnings	7,816,412	1,743,456	141,078	0	0	0	0	0	0	9,700,946
	Avg earnings	38,316	48,429	47,026	0	0	0	0	0	0	39,922
30-34	Number	199	108	23	7	0	0	0	0	0	337
	Tot earnings	8,634,628	5,373,216	1,117,959	315,338	0	0	0	0	0	15,441,141
	Avg earnings	43,390	49,752	48,607	45,048	0	0	0	0	0	45,819
35-39	Number	204	137	112	95	4	0	0	0	0	552
	Tot earnings	10,070,444	7,629,395	5,821,025	4,946,785	187,293	0	0	0	0	28,654,942
	Avg earnings	49,365	55,689	51,973	52,071	46,823	0	0	0	0	51,911
40-44	Number	182	132	138	248	119	0	0	0	0	833
	Tot earnings	9,017,518	6,870,933	7,387,197	13,992,047	6,714,579	727,401	0	0	0	44,709,675
	Avg earnings	49,547	52,053	53,530	56,420	56,425	51,957	0	0	0	53,673
45-49	Number	143	103	110	218	183	10	0	0	0	948
	Tot earnings	7,163,792	5,645,832	5,973,121	12,433,973	10,984,538	10,297,277	543,100	0	0	53,041,633
	Avg earnings	50,096	54,814	54,301	57,037	60,025	56,891	54,310	0	0	55,951
50-54	Number	91	62	74	155	136	122	16	0	0	849
	Tot earnings	4,663,643	3,371,800	4,164,191	8,337,241	7,766,300	11,805,407	6,743,031	872,992	0	47,724,605
	Avg earnings	51,249	54,384	56,273	53,789	57,105	61,168	55,271	54,562	0	56,213
55-59	Number	68	43	36	52	66	114	69	0	0	536
	Tot earnings	3,888,833	2,140,812	2,005,133	2,677,873	3,450,897	4,755,924	7,100,762	4,284,244	0	30,304,478
	Avg earnings	57,189	49,786	55,698	51,498	52,286	54,045	62,287	62,090	0	56,538
60-64	Number	12	14	9	21	18	19	55	0	0	172
	Tot earnings	460,099	1,034,776	514,793	1,046,729	804,822	1,178,582	1,110,027	3,029,396	0	9,179,224
	Avg earnings	38,342	73,913	57,199	49,844	44,712	49,108	58,422	55,080	0	53,368
Over 64	Number	2	2	1	1	0	1	5	0	0	12
	Tot earnings	196,664	78,226	44,337	52,682	0	39,113	216,776	627,798	0	627,798
	Avg earnings	98,332	39,113	44,337	52,682	0	39,113	43,355	52,317	0	52,317
Total	Number	1,185	639	506	797	526	266	145	0	0	4,564
	Tot earnings	54,562,097	33,984,461	27,168,834	43,802,668	29,908,429	28,764,591	15,536,033	8,403,408	0	242,130,521
	Avg earnings	46,044	53,184	53,693	54,959	56,860	57,529	58,406	57,955	0	53,052
Average Age = 45.5      Average Service = 14.9											

Average Age = 45.5 Average Service = 14.9

TOWERS  
PERRIN

HR SERVICES

SI-17

American Water Works Company, Inc.'s Pension Plan, August 2006

**Reconciliation of Participant Data**

	<i>Active</i>	<i>Deferred inactive</i>	<i>Currently receiving benefits</i>	<i>Total</i>
Included in July 1, 2004 valuation	4,423	1,613	1,103	7,139
Change due to:				
▶ New hire and rehire	266	0	0	266
▶ Nonvested termination	(118)	0	0	(118)
▶ Vested termination	(207)	207	0	0
▶ Retirement	(186)	(28)	214	0
▶ Disability	0	0	0	0
▶ Death without beneficiary	(4)	0	(8)	(12)
▶ Death with beneficiary	0	0	0	0
▶ Cashout	0	0	(1)	(1)
▶ Miscellaneous	390*	(13)	24	401
▶ Net change	141	166	229	536
Included in July 1, 2005 valuation	4,564	1,779	1,332	7,675

- \* Primarily due to the inclusion of the Alton Call Center employees who were omitted from the July 1, 2004 valuation.

## Plan Provisions

### Plan Provisions as of July 1, 2005

1. Effective Date: July 1, 1952. Most recent amendment effective January 1, 2006.
2. Definitions:
  - (a) Average Social Security Wage Base: Average of the maximum amounts subject to Social Security taxation for the year of retirement or termination and the nine preceding years.
  - (b) Earnings: Total compensation for services paid as an annual salary or as an hourly wage plus annual incentive awards paid in cash during the period, subject to a maximum amount as set forth in the Tax Reform Act of 1986.
  - (c) Final Average Earnings: The highest average monthly Earnings during the 60 consecutive months of the final 120 months (or lesser period of employment) preceding termination from employment or retirement.
  - (d) Year of Service:
    - (i) For periods prior to the first anniversary of employment after July 1, 1975: A Year of Service is credited for each year of continuous service during which the employee's customary employment was for more than 1,000 hours per year, subject to the following exceptions:
      - (a) California-American Water Company: Only continuous service accrued beginning December 28, 1970 is credited for the purpose of determining the amount of benefits payable under the Plan (in addition to any prior plan benefits).
      - (b) West Virginia Water Company and Yardley Water Company: Only service accrued beginning December 1, 1970 is credited for the purpose of determining the amount of benefits accrued under the Plan (in addition to any prior plan benefits). Service for eligibility purposes and for the schedule of early retirement factors is measured from the original date of hire.

- (ii) For periods beginning on or after the first anniversary of employment after July 1, 1975: In general, a Year of Service is credited for each 12-month period commencing on the employee's anniversary date of employment during which the employee completes 1,000 hours of service. For the purpose of determining the amount of benefits of any participant (other than a part-time employee) who completes at least 1,000 but fewer than 2,080 hours of service in this 12-month period, the participant is credited with the fraction of a Year of Service determined by dividing his actual hours of service by 2,080. The following exceptions apply:
- (a) Hershey Water Company: Employees on April 19, 1977 who were vested in benefits accrued under the prior plan receive credit only for service beginning April 19, 1977.
  - (b) Pekin Water Company: Nonunion participants who were members of the prior plan get credit for all service less any prior plan benefit. Other nonunion employees get credit for periods of service beginning January 1, 1982. Union employees' service is credited for periods beginning April 1, 1982 for the purposes of determining the amount of benefits payable under the Plan (in addition to any prior plan benefits).
  - (c) Seymour Water Company: Only service accrued beginning March 16, 1982 is credited for the purpose of determining the amount of benefits payable under the Plan (in addition to any prior plan benefits).
  - (d) New Mexico-American: All service is credited, including periods before the August 1, 1986 acquisition. The prior plan benefit is a minimum.
  - (e) Indiana-American Terre Haute Plan: Only service accrued beginning May 11, 1987 is credited for the purpose of determining the amount of benefits payable under the Plan (in addition to any prior plan benefits).
  - (f) Brownsville Water Company: Only service accrued beginning July 2, 1990 is credited for the purpose of determining the amount of benefits payable under the Plan (in addition to any prior plan benefits).
  - (g) California Water Company: Only service accrued beginning July 2, 1990 is credited for the purpose of determining the amount of benefits payable under the Plan (in addition to any prior plan benefits).
  - (h) Avatar Utilities Inc: Only service accrued beginning September 1, 1993 is credited for the purpose of determining the amount of benefits payable under the Plan (in addition to any prior plan benefits).

- (i) PG Energy: Only service accrued beginning February 16, 1996 is credited for the purpose of determining the amount of benefits accrued under the Plan (in addition to any prior plan benefits). Service for eligibility and vesting purposes and for the schedule of early retirement factors is measured from the original date of hire.
- (j) United Water Resources, Inc.: Dates of acquisition are shown below:

<u>Location</u>	<u>Date</u>
United Water of Indiana	February 1, 2000
United Water of West Lafayette	February 1, 2000
United Water of Virginia	February 29, 2000
United Water of Missouri	May 1, 2000
United Water of Illinois	May 31, 2000

- (i) Nonunion employees: Service for eligibility purposes and for the schedule of early retirement factors is measured from the original date of hire. Service for benefit accrual is measured from the date of acquisition.
- (ii) Union employees: Service for all purposes is measured from the original date of hire. All benefits are determined under the United Waterworks Plan formula in effect on the date of acquisition.
- (k) City of Coatesville Authority: Only service accrued beginning March 23, 2001 is credited for the purpose of determining the amount of benefits accrued under the Plan. Service for eligibility to participate, vesting and early retirement eligibility is measured from the original date of hire.
- (l) Citizens Utilities Companies: Only service accrued beginning January 15, 2002 is credited for the purpose of determining the amount of benefits payable under the Plan. Service for eligibility and vesting purpose and for the schedule of early retirement factors is measured from the original date of hire.

3. Eligibility for Participation: Each employee commences participation on the first day of the calendar month next following completion of one Year of Service.

4. Benefits:

(a) Normal Retirement Benefit:

- (i) Normal retirement date: The first day of the calendar month next following the participant's 65th birthday.

- (ii) Basic monthly benefit: The sum of (A) and (B) below. Union employees hired on or after January 1, 2001 have their accrued benefit frozen as of December 31, 2005.

(A1) For service before July 1, 2001 for American Water employees (other than former NEI plan participants), the larger of (1) or (2) below:

(1) The sum of (a) plus (b) plus (c):

- (a) 1.85% of Final Average Earnings not in excess of the Average Social Security Wage Base multiplied by Years of Service up to 25 years.
- (b) 2.10% of Final Average Earnings in excess of the Average Social Security Wage Base multiplied by Years of Service up to 25 years.
- (c) 0.70% of Final Average Earnings multiplied by Years of Service in excess of 25 years.

(2) The benefit accrued under the Plan formula as of June 30, 1989.

(A2) For former NEI participants, the benefit formula in effect under the provisions of the former respective NEI plans using the Final Average Earnings described in 2(c) above, and service prior to the dates described below:

<u>Nonbargaining participants of</u>	<u>service before</u>
▶ Northern Illinois	July 1, 2001
▶ Long Island	July 1, 2001
▶ Northwest Indiana	July 1, 2001
▶ St. Louis	July 1, 2001

<u>Bargaining participants of</u>	<u>service before</u>
▶ Northwest Indiana	January 1, 2003
▶ St. Louis	January 1, 2004
▶ Northern Illinois	July 1, 2004
▶ Long Island	July 1, 2004



- (B) For service on or after July 1, 2001 for AW participants, and after dates described above for former NEI participants\*, sum of (1) + (2) + (3):
- (1) 1.6% of Final Average Earnings not in excess of the Average Social Security Wage Base multiplied by Years of Service up to 25 years.\*\*
  - (2) 2.1% (1.6% for Union Associates and former NEI participants) of Final Average Earnings in excess of the Average Social Security Wage Base multiplied by Years of Service up to 25 years.\*\*
  - (3) 1.6% of Final Average Earnings multiplied by Years of Service in excess of 25 years.\*\*
- \* For Bargaining participants of Long Island: 1.60% for each Year of Service from January 1, 2006 but prior to January 1, 2008 multiplied by final 60-month average pay as of December 31, 2007. 1.60% for each Year of Service after December 31, 2007 multiplied by average pay from January 1, 2008 to date of retirement.
- \*\* The threshold of 25 years of service is based on total service, including Years of Service credited prior to July 1, 2001

In addition to the above amounts, benefits are payable under prior plans that have been merged into this Plan: for the Pekin, Seymour, California-American, West Virginia Water Companies and the Indiana-American Terre Haute Plan, the Brownsville Water Company, California Water Company, Avatar Utilities Inc. and PG Energy. Also, any benefits payable through a purchased annuity are subtracted from the above amounts (under Metropolitan contracts #153 and #369).

(b) Early Retirement Benefit:

(i) Early retirement date:

- For American Water employees, former St. Louis County employees and Long Island employees, the first day of any month on which the employee elects to retire provided that:
  - (a) the participant has attained age 55, and
  - (b) the sum of the individual's age and Years of Service totals at least 70.
- For former non-bargaining employees of Northwest Indiana hired prior to July 1, 2001 and former bargaining employees of Northwest Indiana hired prior to January 1, 2003, the first day of any month on which the employee elects to retire provided that the participant has attained age 55 and completed five Years of Service.

- ▶ For former employees of Northern Illinois hired prior to July 1, 2001, the first day of any month on which the employee elects to retire provided that the employee has attained age 55.

- (ii) **Basic monthly benefit:** The benefit as in (a)(ii) above based upon Earnings and Years of Service to the date of early retirement, multiplied by the appropriate factors from the Schedule of Early Retirement Factors contained in the American Water Plan document. For benefits attributable to service prior to the dates described below under the former NEI plans' provisions, the applicable early retirement factors are those attributable to the respective former plans.

<u>Nonbargaining participants of</u>	<u>service before</u>
▶ Northern Illinois	July 1, 2001
▶ Long Island	July 1, 2001
▶ Northwest Indiana	July 1, 2001
▶ St. Louis	July 1, 2001

<u>Bargaining participants of</u>	<u>service before</u>
▶ Northwest Indiana	January 1, 2003
▶ St. Louis	January 1, 2004
▶ Northern Illinois	July 1, 2004
▶ Long Island	July 1, 2004

- (iii) **Supplemental Early Retirement Income:** For Long Island employees (bargaining and non-bargaining) hired prior to July 1, 2001 who retire and whose age plus service at retirement is at least 90 points, benefit is \$100 per month reduced by 5% for each point below 90. This benefit is payable until age 65.

(c) **Vested Benefit:**

- (i) **Eligibility:** Completion of five Years of Service.
- (ii) **Basic monthly benefit:** The benefit as in (a)(ii) or (b)(ii), whichever is applicable, based upon Earnings and Years of Service to date of termination.

(d) Disability Benefit:

- (i) Disability retirement date: The first day of the seventh month following the submission of evidence of permanent disability, provided that the employee has completed 10 Years of Service and qualifies for disability benefits from the Social Security Administration.
- (ii) Basic monthly benefit: The benefit in (a) below, plus any frozen benefit payable under the prior plans for former employees of Pekin Water Company, Seymour Water Company and West Virginia Water Company:
  - (a) the benefit accrued under section (4)(a)(ii) based on Earnings and Years of Service at the date of disability without reduction for early commencement.

(e) Preretirement Death Benefit:

- (i) Eligibility: Monthly benefits under (ii) depend on the status of the participant as follows:
  - (a) All employees eligible for early retirement as of the date of death, provided the employee is married or has designated a contingent annuitant.
  - (b) All employees not eligible for early retirement with at least 10 Years of Service on the date of death, provided the employee is married or has designated a contingent annuitant.
  - (c) All married active employees not eligible for early retirement with at least five Years of Service but less than 10 on the date of death and all former employees who had completed at least five Years of Service but were not eligible for Early Retirement at termination and have not begun to receive retirement benefits, provided the employee is married or has designated a contingent annuitant.
- (ii) Monthly benefit:
  - (a) The benefit that would have been payable to the employee if the participant had retired early on the date of death and elected to receive a 100% contingent annuity.
  - (b) An immediate benefit, based on the amount that would have been payable to the employee had the employee retired on the date of death and elected to receive a 100% contingent annuity. Such benefit will be based upon the Early Retirement Factor for the employee's age at death (or, if greater, age 55) and the number of Years of Service at death. Such benefit will also be based upon the 100% Contingent Annuity Factor for the employee's age at death (or, if greater, age 55) with a spouse's age that bears the same relation as to that at death.

- (c) A deferred benefit, based on 50% of the amount that would have been payable to the participant had he survived to age 55 and elected a 50% contingent annuity. Such benefit will be based upon the Early Retirement Factor and the 50% Contingent Annuity Factor for an employee age 55, the number of Years of Service completed at death or termination, and the spouse's then attained age.

- (iii) Duration of benefit: Monthly benefits are payable during the lifetime of the survivor.

(f) Special Prior Plan Preretirement Death Benefits:

- (i) California-American Water Works: All former employees not eligible for early retirement on the date of death will receive the amount of their accumulated contributions with interest.
- (ii) West Virginia Water Works: All former employees not eligible for early retirement on the date of death will have the accrued frozen benefit without reduction payable for 10 years.

5. Form of Retirement and Disability Benefits:

(a) Normal Form:

- (i) Married participants: 50% contingent annuity (with two-year "pop-up"), with monthly payment equal to the actuarial equivalent of the basic benefit.
- (ii) Single participants: Life annuity, with monthly payment equal to the basic benefit.
- (iii) For former employees of Pekin Water Company, Seymour Water Company and West Virginia Water Company, 10 years certain and continuous annuities are payable with regard to amounts due from prior plan.

(b) Optional Forms: Life annuity; 100%, 66 2/3% or 50% contingent annuity (with two-year "pop-up"); 5-year, 10-year, or 15 year certain and continuous annuity; and a lump sum\*.

6. Maximum Benefits: Maximum benefits payable conform to those set forth in the Employee Retirement Income Security Act of 1974 and the Tax Reform Act of 1986.

\* Effective January 1, 2006 for union employees hired on or after January 1, 2001.

---

**Changes in Plan Provisions Since Prior Year**

The following plan changes are effective January 1, 2006 and are reflected in the 2006 accounting results. They are not reflected in the July 1, 2005 funding results.

- ▶ The pension plan is closed for most union and all nonunion employees hired on or after January 1, 2006.
- ▶ For most union employees hired on or after January 1, 2001 their accrued benefits as of December 31, 2005 are frozen and are payable as a lump sum at termination or retirement.
- ▶ Long Island union employees have negotiated an update to the career pay benefit as of December 31, 2005 for any employee that retires between January 1, 2006 and December 31, 2007.
- ▶ Single employee can elect non-spouse beneficiary.

## **Glossary of Selected Terms**

Actuarial Accrued Liability — The cost allocated to years prior to the valuation date under the plan's funding method (contribution basis).

Accumulated Benefit Obligation (ABO) — The present value of benefits earned by participants prior to the measurement date. The benefits are based on compensation earned prior to the valuation date (pension cost basis).

Accrued/Prepaid Pension Cost — Cumulative employer contributions less than/in excess of pension cost (pension cost basis).

Actuarial Asset Value — A smoothed value of assets, used in calculating the plan's contributions (contribution basis).

Current Liability Rate — The interest rate used to calculate the current liability. The rate is determined by the IRS (contribution basis).

Current Liability — The value of accrued benefits calculated using the current liability rate (contribution basis).

Discount Rate — The interest rate used to adjust liabilities and obligations for the time value of money. It is used in calculating the service cost and benefit obligations (pension cost basis).

Expected Rate of Return — The assumption as to the rate of return on plan assets reflecting the average long-term rate of earnings expected on the funds invested (pension cost basis).

Full Funding Limitation — A plan contribution is not required, nor is it deductible, if either:

- (i) the plan's expected assets exceed the plan's expected actuarial accrued liability at the end of the year, or
- (ii) the plan's expected assets exceed 90% of the expected current liability at the end of the year.

Funded Status — A comparison of the plan's assets and liabilities at a particular point in time.

Gain or Loss — A change in the value of the projected benefit obligation, actuarial accrued liability or plan assets resulting from experience different from that assumed. On the pension cost basis, a change in these values arising from a change in actuarial assumptions is also considered a gain or loss.

Market Value of Assets — The value of assets reported by the trustee, adjusted for plan receivables and payables.

Market-Related Value of Assets — At the option of the plan sponsor, a smoothed value of assets may be used in calculating the expected return on plan assets component of pension cost.

Maximum Deductible Contribution — The largest amount the plan sponsor may contribute to the plan and deduct for tax purposes without incurring a penalty.

Measurement Date — The date as of which assets and obligations are measured in determining pension cost.

Minimum Required Contribution — The smallest amount the plan sponsor may contribute to the plan without incurring a penalty.

Normal Cost — The cost allocated to the current year by the plan's funding method (contribution basis).

Pension Cost — The annual accounting cost recognized in the plan sponsor's financial statements as the cost of the pension plan. The pension cost is determined in accordance with Financial Accounting Standard No. 87.

Projected Benefit Obligation (PBO) — The present value of benefits earned by participants prior to the measurement date. The benefits are based on the employee's projected compensation (pension cost basis).

Service Cost — The present value of benefits earned by employees during the year covered by this valuation. The benefits are based on the employee's projected compensation (pension cost basis).

Valuation Date — The date as of which assets and liabilities are measured.

10% Corridor — Gains or losses that, in the aggregate, are less than 10% of the greater of the projected benefit obligation or the plan's market-related value of assets may be excluded from the determination of pension cost.