

Exhibit No.: \_\_\_\_\_  
Issues: Cost Allocation/Rate Design  
Witness: Paul R. Herbert  
Exhibit Type: Direct  
Sponsoring Party: Missouri-American Water Company  
Case No.: WR-2008-XXXX  
Date: March 31, 2008

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2008-XXXX

DIRECT TESTIMONY

OF

PAUL R. HERBERT

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

JEFFERSON CITY, MISSOURI

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

IN THE MATTER OF MISSOURI-AMERICAN )	
WATER COMPANY FOR AUTHORITY TO )	
FILE TARIFFS REFLECTING INCREASED )	CASE NO. WR-2008-XXXX
RATES FOR WATER AND SEWER )	CASE NO. SR-2008-XXX
SERVICE )	

**AFFIDAVIT OF PAUL R. HERBERT**

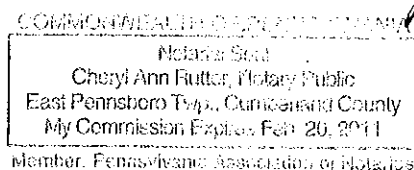
Paul R. Herbert, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Direct Testimony of Paul R. Herbert"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquiries were made as to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

  
\_\_\_\_\_  
Paul R. Herbert

Commonwealth of Pennsylvania  
County of Cumberland  
SUBSCRIBED and sworn to  
Before me this 20th day of March 2008.

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

My commission expires: February 20, 2011



## TABLE OF CONTENTS

	<u>PAGE</u>
WITNESS INTRODUCTION AND QUALIFICATIONS AND EXPERIENCE .....	1
COST OF SERVICE ALLOCATION .....	3
RATE DESIGN .....	11

1                                   **WITNESS INTRODUCTION AND**  
2                                   **QUALIFICATIONS AND EXPERIENCE**

3    **1.   Q.   Please state your name and address.**

4           A.  My name is Paul R. Herbert.  My business address is 207 Senate Avenue,  
5               Camp Hill, Pennsylvania.

6    **2.   Q.   By whom are you employed?**

7           A.  I am employed by Gannett Fleming, Inc.

8    **3.   Q.   Please describe your position with Gannett Fleming, Inc. and briefly**  
9               **state your general duties and responsibilities.**

10          A.  I am President of the Valuation and Rate Division.  My duties and respon-  
11               sibilities include the preparation of accounting and financial data for revenue  
12               requirement and cash working capital claims, the allocation of cost of service  
13               to customer classifications, and the design of customer rates in support of  
14               public utility rate filings.

15   **4.   Q.   Have you presented testimony in rate proceedings before a regulatory**  
16               **agency?**

17          A.  Yes.  I have testified before the Pennsylvania Public Utility Commission, the  
18               New Jersey Board of Public Utilities, the Public Utilities Commission of Ohio,  
19               the Public Service Commission of West Virginia, the Kentucky Public Service  
20               Commission, the Iowa State Utilities Board, the Virginia State Corporation  
21               Commission, the Missouri Public Service Commission, the New Mexico  
22               Public Regulation Commission, the Public Utilities Commission of the State of  
23               California, the Illinois Commerce Commission and the Tennessee Regulatory

1 Authority, concerning revenue requirements, cost of service allocation, rate  
2 design and cash working capital claims. A list of cases that I have testified is  
3 attached to my testimony.

4 **5. Q. What is your educational background?**

5 A. I have a Bachelor of Science Degree in Finance from the Pennsylvania State  
6 University, University Park, Pennsylvania.

7 **6. Q. Would you please describe your professional affiliations?**

8 A. I am a member of the American Water Works Association and serve as a  
9 member of the Management Committee for the Pennsylvania Section. I am  
10 also a member of the Pennsylvania Municipal Authorities Association. In  
11 1998, I became a member of the National Association of Water Companies  
12 as well as a member of its Rates and Revenue Committee.

13 **7. Q. Briefly describe your work experience.**

14 A. I joined the Valuation Division of Gannett Fleming Corddry and Carpenter,  
15 Inc., predecessor to Gannett Fleming, Inc., in September 1977, as a Junior  
16 Rate Analyst. Since then, I advanced through several positions and was  
17 assigned the position of Manager of Rate Studies on July 1, 1990. On June  
18 1, 1994, I was promoted to Vice President and Senior Vice President in  
19 November 2003. On July 1, 2007, I was promoted to my current position as  
20 President of the Valuation and Rate Division.

21 While attending Penn State, I was employed during the summers of  
22 1972, 1973 and 1974 by the United Telephone System - Eastern Group in its  
23 accounting department. Upon graduation from college in 1975, I was

1 employed by Herbert Associates, Inc., Consulting Engineers (now Herbert  
2 Rowland and Grubic, Inc.), as a field office manager until September 1977.

3 **8. Q. What is the purpose of your testimony in this proceeding?**

4 A. The purpose of my testimony is to present and explain Missouri-American  
5 Water Company's (or MAWC or Company) cost of service allocation studies  
6 and proposed rate designs set forth in Schedule PRH-1.

7 **9. Q. Was Schedule No. PRH-1 prepared by you or under your direction and**  
8 **supervision?**

9 A. Yes, it was.

10  
11 **COST OF SERVICE ALLOCATION**

12 **10. Q. Briefly describe the purpose of your cost allocation studies.**

13 A. The purpose of the studies was to allocate the district specific cost of service,  
14 which is the total revenue requirement, for MAWC water operations to the  
15 customer classifications in each operating district. The operating districts  
16 include Brunswick (BRU), Jefferson City (JFC), Joplin (JOP), Mexico (MEX),  
17 Parkville (PKW), St. Joseph (SJO), Warrensburg (WAR) and the St. Louis  
18 Metro Area (SLM) which includes the former St. Charles (SCH), Warren  
19 County Water (WCW) and St. Louis County (STL) districts. Cost allocation  
20 studies were not performed for the sewer districts in Parkville, Cedar Hill and  
21 Warren County since these districts are predominantly residential customers.

22 In the studies, the district specific costs were allocated to the  
23 residential, commercial, industrial, other public authorities, sales for resale,

1 private fire protection and public fire protection classifications in accordance  
2 with generally accepted principles and procedures. The cost of service  
3 allocation studies results in indications of the relative cost responsibilities of  
4 each class of customers in each operating district. The allocated cost of  
5 service is one of several criteria appropriate for consideration in designing  
6 customer rates to produce the required revenues. The results of the allocation  
7 of the district specific cost of service for the test year ended December 31,  
8 2007, and proposed customer rates which produce the pro forma revenue  
9 requirements, are presented in the studies.

10 **11. Q. Please describe the method of cost allocation that was used in your**  
11 **study.**

12 A. The base-extra capacity method, as described in 2000 and prior Water Rates  
13 Manuals published by the American Water Works Association (AWWA), was  
14 used to allocate the pro forma costs. Base-extra capacity is a recognized  
15 method for allocating the cost of providing water service to customer  
16 classifications in proportion to the classifications' use of the commodity,  
17 facilities, and services. It is generally accepted as a sound method for  
18 allocating the cost of water service and was used by the Company in previous  
19 cases.

20 **12. Q. Please describe the procedure followed in each of the cost allocation**  
21 **studies.**

22 A. Each identified classification of cost in the district specific cost of service was  
23 allocated to the customer classifications through the use of appropriate

1 factors. These allocations are presented in Schedule B for each study. The  
2 items of cost, which include operation and maintenance expenses, deprecia-  
3 tion expense, taxes and income available for return, are identified in column 1  
4 of Schedule B. The cost of each item, shown in column 3, is allocated to the  
5 several customer classifications based on allocation factors referenced in  
6 column 2. The development of the allocation factors is presented in Schedule  
7 C. I will use some of the larger cost items to illustrate the principles and  
8 considerations used in the cost allocation methodology.

9 Purchased water, purchased electric power, treatment chemicals and  
10 waste disposal are examples of costs that tend to vary with the amount of  
11 water consumed and are thus considered base costs. They are allocated to  
12 the several customer classifications in direct proportion to the average daily  
13 consumption of those classifications through the use of Factor 1. The  
14 development of Factor 1 is shown in Schedule C.

15 Other source of supply, water treatment and transmission costs are  
16 associated with meeting usage requirements in excess of the average,  
17 generally to meet maximum day requirements. Costs of this nature were  
18 allocated to customer classifications partially as base costs, proportional to  
19 average daily consumption, partially as maximum day extra capacity costs, in  
20 proportion to maximum day extra capacity, and, in the case of certain  
21 pumping stations and transmission mains, partially as fire protection costs,  
22 through the use of Factors 2 and 3. The development of the allocation  
23 factors, referenced as Factors 2 and 3, is shown in Schedule C.



1           Costs associated with storage facilities and the capital costs of  
2           distribution mains were allocated partly on the basis of average consumption  
3           and partly on the basis of maximum hour extra demand, including the  
4           demand for fire protection service, because these facilities are designed to  
5           meet maximum hour and fire demand requirements. The development of the  
6           factors, referenced as Factors 4 and 5, used for these allocations is shown in  
7           Schedule C.

8           Fire demand costs were allocated to public and private fire protection  
9           service in proportion to the relative potential demands on the system by public  
10          fire hydrants and private service lines as presented in Schedule E.

11          Costs associated with pumping facilities and the operation and  
12          maintenance of mains were allocated on combined bases of maximum day  
13          and maximum hour extra capacity because these facilities serve both  
14          functions. For pumping facilities, the relative weightings of Factor 2  
15          (maximum day), Factor 3 (maximum day and fire) and Factor 4 (maximum  
16          hour) were based on the horsepower of pumps serving maximum day,  
17          maximum day and fire and maximum hour functions. The development of this  
18          weighted factor is referenced as Factor 6.

19          For operation and maintenance of mains, the relative weightings of  
20          Factor 3 (maximum day and fire) and Factor 4 (maximum hour) were based  
21          on the footage of transmission and distribution mains. Generally for cost  
22          allocation purposes, mains larger than 10-inch were classified as serving a  
23          transmission function and mains 10-inch and smaller were classified as

1 serving a distribution function. The development of this weighted factor is  
2 referenced as Factor 7.

3 Costs associated with meters were allocated to customer  
4 classifications in proportion to the relative unit costs of the sizes and  
5 quantities of meters serving each classification. The development of the  
6 factor for meters is referenced as Factor 9. Factor 10, Allocation of Services,  
7 was developed in a similar manner as Factor 9, except that the relative unit  
8 cost per foot by service size was used in order to weight the number of  
9 services by classification. Costs associated with public fire hydrants were  
10 assigned directly to the public fire protection class (Factor 8).

11 Costs for customer accounting, billing and collecting were allocated  
12 on the basis of the number of customers for each classification, and costs for  
13 meter reading were allocated on the basis of metered customers. The  
14 development of these factors is referenced as Factor 13 and Factor 14.

15 Administrative and general costs were allocated on the basis of  
16 allocated direct costs, excluding those costs such as purchased water, power,  
17 chemicals and waste disposal, which require little administrative and general  
18 expense. The development of the factor is referenced as Factor 15.

19 Annual depreciation accruals were allocated on the basis of the  
20 function of the facilities represented by the depreciation expense for each  
21 depreciable plant account. The original cost less depreciation of utility plant  
22 in service was similarly allocated for the purpose of developing factors,  
23 referenced as Factor 18, for allocating items such as income taxes and

1 return. The development of Factor 18 is presented on the last three pages of  
2 Schedule C.

3 Factors 15 and 18, as well as Factors 11, 12, 16, 17 and 19, are  
4 composite allocation factors. These factors are based on the result of  
5 allocating other costs and are computed internally in the cost allocation  
6 program. Refer to Schedule C for a description of the bases for each  
7 composite allocation factor.

8 **13. Q. What was the source of the total cost of service data set forth in column**  
9 **3 of Schedule B?**

10 A. The pro forma costs of service were furnished by the Company, and are set  
11 forth in Company accounting exhibits and workpapers. The cost of service  
12 by district used in my allocation studies reflects the revenue contribution  
13 among districts as explained in Mr. Grubb's testimony.

14 **14. Q. Refer to Schedule C, and explain the source of the system maximum**  
15 **day and maximum hour ratios used in the development of factors**  
16 **referenced as Factors 2, 3 and 4.**

17 A. The ratios were based on a review of historic Company data for each district.  
18 Schedule D shows the experienced maximum day ratios for each district over  
19 the last several years. The maximum hour ratios were estimated based on  
20 actual data or the relationship of system maximum hour ratios compared to  
21 system maximum day ratios for similar systems.

22 **15. Q. What factors were considered in estimating the maximum day extra**  
23 **capacity and maximum hour extra capacity demands used for the**

**customer classifications in the development of Factors 2, 3 and 4?**

A. The estimated demands were based on judgment which considered field studies of actual customer class demands conducted for other American Companies, field observations of the service areas of the Company, field studies of similar service areas in Pennsylvania, and generally-accepted customer class maximum day and maximum hour demand ratios.

**16. Q. Please explain the allocation of small mains in certain districts.**

A. Factor 4, used to allocate distribution mains, was modified to exclude consumption for certain large customers connected primarily to large mains, commonly referred to as transmission mains, in Joplin, St. Joseph and St. Louis Metro Area districts. This was done to recognize that certain industrial and sales for resale customers are connected directly to the transmission system and do not benefit from the smaller distribution mains.

**17. Q. How was this adjustment accomplished?**

A. In Joplin, five of the six largest industrial customers are connected to mains 12-inch and larger. The sixth customer is served from an 8-inch main, but is located a short distance from 12- and 16-inch mains. The test year consumption for these six customers was excluded from the industrial class for the basis of developing Factor 4.

In St. Joseph, the four largest industrial accounts and all sales for resale accounts are served from mains 12-inch and larger. The test year consumption for these customers was excluded in the development of Factor 4.

1 In St. Louis Metro Area, all sales for resale customers (Rates B) are  
2 served from the transmission system and therefore, were excluded from  
3 Factor 4. For the industrial or Rate J classification, an analysis of the  
4 customers was performed to determine the size main each Rate J customer  
5 is served from. The analysis showed that out of 215 Rate J customers, 112  
6 customers representing 61.8% of the Rate J consumption are connected to  
7 mains 12-inch and larger. The remaining 103 customers with 38.2% of the  
8 consumption are connected to mains smaller than 12-inch.

9 A further analysis of the 103 customers connected to small mains was  
10 conducted to measure the length of distribution mains used to serve these  
11 customers from the transmission system. This analysis showed that only  
12 about 225,000 feet of small mains are used from the transmission system to  
13 the connection point of the 103 Rate J customers. The 225,000 feet  
14 represents about 1.3% of the total 17.5 million feet of distribution mains. This  
15 analysis clearly shows that although certain Rate J customers are connected  
16 to smaller mains, the length of those mains are only a small fraction of the  
17 total distribution main system. Therefore, based on this analysis, 10% of the  
18 Rate J consumption was used in the development of Factor 4, to reflect that a  
19 small part of the distribution mains are used by Rate J customers.

20 **18. Q. Have you summarized the results of your cost allocation study?**

21 A. Yes. The results are summarized in columns 1, 2 and 3 of Schedule A for  
22 each district. Column 2 sets forth the total allocated pro forma cost of service  
23 as of December 31, 2007, for each customer classification identified in

column 1. Column 3 presents each customer classification's cost responsibility as a percent of the total cost.

**19. Q. Have you compared these cost responsibilities with the proportionate revenue under existing rates for each customer classification?**

A. Yes. A comparison of the allocated cost responsibilities and the percentage revenue under existing rates for each district can be made by comparing columns 3 and 5 of Schedule A. A similar comparison of the percentage cost responsibilities (relative cost of service) and the percentage of pro forma revenues (relative revenues) under proposed rates can be made by comparing columns 3 and 7 of Schedule A .

## **CUSTOMER RATE DESIGN**

**20. Q. What are the appropriate factors to be considered in the design of the rate structure?**

A. In preparing a rate structure, one should consider the allocated costs of service, the impact of changes from the present rate structure, the understandability and ease of application of the rate structure, community and social influences, and the value of service. General guidelines should be developed with management to determine the extent to which each of these criteria is to be incorporated in the rate structure to be designed, inasmuch as the pricing of a commodity or service is a function of management.

**21. Q. Did management discuss rate design guidelines with you?**

A. Yes, they did. The guidelines were as follows: (1) Maintain district specific

pricing for each district's rate structure and taking into account a revenue contribution for several small districts; (2) merge the rates for St. Charles and Warren County Water into the rate structure of the former St. Louis County district to form the St. Louis Metro Area district rates; (3) determine the unit cost per public fire hydrant in the St. Louis Metro Area district so that public fire protection costs can be recovered from each customer in a similar manner as the current practice in St. Louis County; (4) design two sets of customer charges – one uniform structure by meter size applicable for all districts excluding the St. Louis Metro Area and one structure by meter size for the St. Louis Metro Area alone; (5) for districts other than St. Louis Metro, use a one-block structure for the residential class and two- to four-block structures for non-residential classes; and (6) design the customer charges and volumetric rates so that proposed revenues by customer classification move toward or approximate the indicated cost of service in each district.

**22. Q. Do you agree with these guidelines?**

A. Yes, I do.

**23. Q. Have you prepared proposed rate schedules for each classification and each rate zone?**

A. No, however the Company has prepared Schedule EJG-5 which shows a comparison of present and proposed rates for each district.

**24. Q. Please explain the proposed minimum charges.**

A. An analysis of the customer costs in each district was prepared to determine the appropriate monthly minimum charges by meter size. For the seven

1 districts other than the St. Louis Metro Area, the pro forma customer costs for  
2 a 5/8-inch meter ranged from \$12.93 to \$19.32 per month. (See Schedule F  
3 for each district). Based on this analysis, the 5/8-inch minimum charge was  
4 set at \$13.00 per month for each of the seven districts representing increases  
5 ranging from 11.9% in Joplin to 52% in Parkville. The larger increases in  
6 certain districts are a result of the existing rates being significantly below the  
7 indicated cost of service. The increases to the larger sizes (3/4-inch through  
8 12-inch meters) were based on the existing ratios by size to the 5/8-inch  
9 charge.

10 For St. Louis Metro Area, the analysis of pro forma customer costs  
11 resulted in a 5/8-inch meter customer cost of \$13.81 per month and \$20.33  
12 per quarter. Since these unit costs would represent a 98% and 99% increase  
13 respectively, over existing rates, the minimum charges were set at \$10.00 per  
14 month and \$16.52 per quarter. Minimums, for the larger meter sizes were  
15 developed in a similar manner. Minimum charges for St. Charles and Warren  
16 County Water were set equal to those for St. Louis Metro Area.

17 **25. Q. Please explain the volumetric charges.**

18 A. Generally, for the seven districts other than St. Louis Metro, a one-block  
19 uniform volumetric rate is proposed for the residential classification in each  
20 district. This is a change from the existing declining block structure for  
21 residential customers and recognizes that large residential users (over  
22 100,000 gallons per month) do not have favorable load factors and should not  
23 pay less for their usage than small users.



1 For non-residential customers, a two, three or four block structure is  
2 proposed with the first block rate that is the same for each of the non-  
3 residential classes and the remaining block rates designed to move revenues  
4 toward or equal to the indicated cost of service by classification within each  
5 district.

6 In St. Louis Metro Area, the same single-block rate structure for Rates  
7 A through J is proposed with increases in each rate according to cost of  
8 service. All St. Charles and Warren County customers were placed in the  
9 Rate A classification.

10 **26. Q. Please explain private fire charges.**

11 A. In most districts, the existing private fire revenues exceed the indicated cost  
12 of service. Therefore, no changes to the private fire line rates are proposed  
13 at this time.

14 **27. Q. Please explain the public fire hydrant charges.**

15 A. The cost of service for public fire protection was established only for the St.  
16 Louis Metro Area. The annual unit cost was determined by dividing the cost  
17 of service by the number of public hydrants for the combined service areas.  
18 The public fire hydrant rates will be charged on a per customer basis in each  
19 area as a separate charge in a similar manner as the existing practice in St.  
20 Louis County.

21 **28. Q. Has the Company prepared proof of revenue schedules under present  
22 and proposed rates?**

23 A. Yes. The proof of revenue shows that the application of the present and

1 proposed rates to the billing determinants or bill analysis produce the pro  
2 forma present and proposed revenue and proves that the proposed rates filed  
3 in the proposed tariffs recover the requested revenue requirements.

4 Schedule CAS-13 and 14, sponsored by Mr. Petry, sets forth the proof  
5 of revenues from the application of present and proposed rates to the  
6 customer consumption analysis. The revenues from these exhibits are  
7 brought forward to Schedule A, columns 4 and 6, for each district.

8 **29. Q. Does this complete your testimony at this time?**

9 A. Yes, it does.

LIST OF CASES IN WHICH PAUL R. HERBERT TESTIFIED

<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
1. 1983	Pa. PUC	R-832399	T. W. Phillips Gas and Oil Co.	Pro Forma Revenues
2. 1989	Pa. PUC	R-891208	Pennsylvania-American Water Company	Bill Analysis and Rate Application
3. 1991	PSC of W. Va.	91-106-W-MA	Clarksburg Water Board	Revenue Requirements (Rule 42)
4. 1992	Pa. PUC	R-922276	North Penn Gas Company	Cash Working Capital
5. 1992	NJ BPU	WR92050532J	The Atlantic City Sewerage Company	Cost Allocation and Rate Design
6. 1994	Pa. PUC	R-943053	The York Water Company	Cost Allocation and Rate Design
7. 1994	Pa. PUC	R-943124	City of Bethlehem	Revenue Requirements, Cost Allocation, Rate Design and Cash Working Capital
8. 1994	Pa. PUC	R-943177	Roaring Creek Water Company	Cash Working Capital
9. 1994	Pa. PUC	R-943245	North Penn Gas Company	Cash Working Capital
10. 1994	NJ BPU	WR94070325	The Atlantic City Sewerage Company	Cost Allocation and Rate Design
11. 1995	Pa. PUC	R-953300	Citizens Utilities Water Company of Pennsylvania	Cost Allocation and Rate Design
12. 1995	Pa. PUC	R-953378	Apollo Gas Company	Revenue Requirements and Rate Design
13. 1995	Pa. PUC	R-953379	Carnegie Natural Gas Company	Revenue Requirements and Rate Design
14. 1996	Pa. PUC	R-963619	The York Water Company	Cost Allocation and Rate Design
15. 1997	Pa. PUC	R-973972	Consumers Pennsylvania Water Company - Shenango Valley Division	Cash Working Capital
16. 1998	Ohio PUC	98-178-WS-AIR	Citizens Utilities Company of Ohio	Water and Wastewater Cost Allocation and Rate Design
17. 1998	Pa. PUC	R-984375	City of Bethlehem - Bureau of Water	Revenue Requirement, Cost Allocation and Rate Design
18. 1999	Pa. PUC	R-994605	The York Water Company	Cost Allocation and Rate Design
19. 1999	Pa. PUC	R-994868	Philadelphia Suburban Water Company	Cost Allocation and Rate Design
20. 1999	PSC of W. Va.	99-1570-W-MA	Clarksburg Water Board	Revenue Requirements (Rule 42), Cost Allocation and Rate Design
21. 2000	Ky. PSC	2000-120	Kentucky-American Water Company	Cost Allocation and Rate Design
22. 2000	Pa. PUC	R-00005277	PPL Gas Utilities	Cash Working Capital
23. 2000	NJ BPU	WR00080575	Atlantic City Sewerage Company	Cost Allocation and Rate Design
24. 2001	Ia. St Util Bd	RPU-01-4	Iowa-American Water Company	Cost Allocation and Rate Design
25. 2001	Va. St. Corp Cm	PUE010312	Virginia-American Water Company	Cost Allocation and Rate Design
26. 2001	WV PSC	01-0326-W-42T	West-Virginia American Water Company	Cost Allocation and Rate Design
27. 2001	Pa. PUC	R-016114	City of Lancaster	Tapping Fee Study
28. 2001	Pa. PUC	R-016236	The York Water Company	Cost Allocation and Rate Design
29. 2001	Pa. PUC	R-016339	Pennsylvania-American Water Company	Cost Allocation and Rate Design
30. 2001	Pa. PUC	R-016750	Philadelphia Suburban Water Company	Cost Allocation and Rate Design

LIST OF CASES IN WHICH PAUL R. HERBERT TESTIFIED, cont.

<u>Year</u>	<u>Jurisdiction</u>	<u>Docket No.</u>	<u>Client/Utility</u>	<u>Subject</u>
31. 2002	Va. St. Corp Cm	PUE-2002-00375	Virginia-American Water Company	Cost Allocation and Rate Design
32. 2003	Pa. PUC	R-027975	The York Water Company	Cost Allocation and Rate Design
33. 2003	Tenn Reg. Auth	03-	Tennessee-American Water Company	Cost Allocation and Rate Design
34. 2003	Pa. PUC	R-038304	Pennsylvania-American Water Company	Cost Allocation and Rate Design
35. 2003	NJ BPU	WR03070511	New Jersey-American Water Company	Cost Allocation and Rate Design
36. 2003	Mo. PSC	WR-2003-0500	Missouri-American Water Company	Cost Allocation and Rate Design
37. 2004	Va. St. Corp Cm	PUE-200 -	Virginia-American Water Company	Cost Allocation and Rate Design
38. 2004	Pa. PUC	R-038805	Pennsylvania Suburban Water Company	Cost Allocation and Rate Design
39. 2004	Pa. PUC	R-049165	The York Water Company	Cost Allocation and Rate Design
40. 2004	NJ BPU	WRO4091064	The Atlantic City Sewerage Company	Cost Allocation and Rate Design
41. 2005	WV PSC	04-1024-S-MA	Morgantown Utility Board	Cost Allocation and Rate Design
42. 2005	WV PSC	04-1025-W-MA	Morgantown Utility Board	Cost Allocation and Rate Design
43. 2005	Pa. PUC	R-051030	Aqua Pennsylvania, Inc.	Cost Allocation and Rate Design
44. 2006	Pa. PUC	R-051178	T. W. Phillips Gas and Oil Co.	Cost Allocation and Rate Design
45. 2006	Pa. PUC	R-061322	The York Water Company	Cost Allocation and Rate Design
46. 2006	NJ BPU	WR-06030257	New Jersey American Water Company	Cost Allocation and Rate Design
47. 2006	Pa. PUC	R-061398	PPL Gas Utilities, Inc.	Cost Allocation and Rate Design
48. 2006	NM PRC	06-00208-UT	New Mexico American Water Company	Cost Allocation and Rate Design
49. 2006	Tenn. Reg Auth	06-00290	Tennessee American Water Company	Cost Allocation and Rate Design
50. 2007	Ca. PUC	U-339-W	Suburban Water Systems	Cost Allocation and Rate Design
51. 2007	Ca. PUC	U-168-W	San Jose Water Company	Water Conservation Rate Design
52. 2007	Pa. PUC	R-00072229	Pennsylvania American Water Company	Water Conservation Rate Design
53. 2007	Ky. PSC	2007-00143	Kentucky American Water Company	Cost Allocation and Rate Design
54. 2007	Mo. PSC	WR-2007-0216	Missouri American Water Company	Cost Allocation and Rate Design
55. 2007	Oh. PUC	07-1112-WS-AIR	Ohio American Water Company	Cost Allocation and Rate Design
56. 2007	Il. CC	07-0507	Illinois American Water Company	Customer Class Demand Study
57. 2007	Pa. PUC	R-00072711	Aqua Pennsylvania, Inc.	Cost Allocation and Rate Design
58. 2007	NJ BPU		The Atlantic City Sewerage Company	Cost Allocation and Rate Design
59. 2007	Pa. PUC	R-00072492	City of Bethlehem – Bureau of Water	Revenue Requirements, Cost Alloc.
60. 2007	WV PSC	07-0541-W-MA	Clarksburg Water Board	Cost Allocation and Rate Design
61. 2007	WV PSC	07-0998-W-42T	West Virginia American Water Company	Cost Allocation and Rate Design
62. 2008	NJ BPU		New Jersey American Water Company	Cost Allocation and Rate Design