PAWC STATEMENT NO. 7
DOCKET NO. R-2008-2032689

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF
PAUL R. HERBERT

ON BEHALF OF PENNSYLVANIA-AMERICAN WATER COMPANY

CONCERNING

COST OF SERVICE ALLOCATION

AND

CUSTOMER RATE DESIGN

APRIL 2008

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

RE: PENNSYLVANIA-AMERICAN WATER COMPANY
DOCKET R-2008-2032689
DIRECT TESTIMONY OF PAUL R. HERBERT

Line No.

Q. Please state your name and address.

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

Q. By whom are you employed?

A. I am employed by Gannett Fleming, Inc.

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

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

Q. Have you presented testimony in rate proceedings before a regulatory agency?

A. Yes. I have testified before the Pennsylvania Public Utility Commission, the New Jersey Board of Public Utilities, the Public Utilities Commission of Ohio, the Public Service Commission of West Virginia, the Kentucky Public Service Commission, the Iowa State Utilities Board, the Virginia State Corporation Commission, the Tennessee Regulatory Authority, The California Public Utilities Commission, New Mexico Public Regulation

Commission and the Missouri Public Service Commission concerning revenue requirements, cost of service allocation, rate design and cash working capital claims.

A list of the cases in which I have testified is provided at the end of my direct testimony.

Q. What is your educational background?

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

Q. Would you please describe your professional affiliations?

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

Q. Briefly describe your work experience.

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

While attending Penn State, I was employed during the summers of 1972, 1973 and 1974 by the United Telephone System - Eastern Group in its

accounting department. Upon graduation from college in 1975, I was employed by Herbert Associates, Inc., Consulting Engineers (now Herbert Rowland and Grubic, Inc.), as a field office manager until September 1977.

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

A. My testimony is in support of the cost of service allocation and rate design study conducted under my direction and supervision for the Coatesville Wastewater operations ("CWW") of the Pennsylvania-American Water Company (the "Company").

Q. Have you prepared exhibits presenting the results of your study?

A. Yes. Exhibit No. 7-A presents the results of the allocation of pro forma cost of service as of December 31, 2008, the proposed rate design and the proof of revenues under present and proposed rates. Also, responses to Rate Structure and Cost of Service Filing Requirements No. RS1, are found in the Appendix to Exhibit No. 7-A.

COST OF SERVICE ALLOCATION

Q. Briefly describe the purpose of your cost allocation study.

A. The purpose of the study was to allocate the total CWW cost of service, which is the total revenue requirement, to the several customer classifications. In the study, the total costs were allocated to the residential, commercial/public, industrial, and bulk use customer classifications in accordance with generally accepted principles and procedures. For the purposes of cost allocation, one small industrial customer is included in the commercial/public class and the V.A. Hospital is included with the bulk use class. This leaves Mittal Steel as the only customer in the industrial class.

The cost of service allocation study results in indications of the relative cost responsibilities of each class of customers. The allocated cost of service is one of several criteria appropriate for consideration in designing customer rates to produce the required revenues.

Q. Have you prepared an exhibit presenting the results of your studies?

A. Yes. The results of my allocation of the pro forma cost of service as of December 31, 2008, and proposed customer rates to produce the pro forma revenue requirement as of that date are presented in Exhibit No. 7-A.

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

A. The base-extra capacity method, as described in 2000 and prior Water Rates Manuals published by the American Water Works Association (AWWA), adapted for wastewater utilities was used to allocate the pro forma costs. I also relied on the text "Financing and Charges for Wastewater Systems", Manual of Practice No. 27, published by the Water Environment Federation. This method is recognized for allocating the cost of providing wastewater service to customer classifications in proportion to the classifications' use of the commodity, facilities, and services. It is generally accepted as a sound method for allocating the cost of wastewater service.

Q. Please describe the procedure followed in the cost allocation study.

A. The cost of service study for the wastewater operations is similar to the water cost allocation study. It allocates each element of the cost of service to cost functions and then to customer classifications. The cost functions are flow, extra capacity, infiltration and inflow, customer facilities and customer accounting. The results of allocating costs to the cost functions

are then allocated to the Residential, Commercial/Public, Industrial and Bulk Use Customer classifications, based on the water usage and wastewater flows, peak flows and the number of customers of each class.

The items of cost, which include operation and maintenance expenses, depreciation expense, taxes and income available for return, are identified in column 1 of Schedule D. The cost of each item, shown in column 3, is allocated to the several cost functions based on allocation factors referenced in column 2. The development of the allocation factors is presented in Schedule E of the exhibit.

Costs that vary with the average volume of flow, such as power and chemicals, are allocated to the flow cost function and infiltration and inflow function, to recognize that a portion of the flow is not customer induced.

Costs associated with meeting maximum day extra capacity demands, such as treatment facilities, are allocated partly to flow, partly to maximum day extra capacity and partly to infiltration and inflow.

Costs associated with meeting maximum hour extra capacity demands such as collecting and transmission facilities are allocated partly to flow, partly to maximum hour extra capacity and partly to infiltration and inflow.

Costs associated with customer facilities and customer accounting are allocated directly to those functions.

Administrative and general costs and labor related taxes and benefits are allocated using composite factors in a similar manner as described in the water cost allocation.

Income taxes and return are allocated based on the allocation of rate base shown in Schedule E.

Q. Please describe the next step in the allocation.

A. The result of allocating the costs to cost functions in Schedule D are brought forward to Schedule B. Schedule B shows the allocation of the functional costs to customer classifications using the Factors A through E described in Schedule C. The results of allocating the functional costs to customer classes are brought forward to Schedule A, column 2. These results can be compared to the revenues under present rates in columns 4 and 5 and under proposed rates in columns 6 and 7. The proposed increase is shown in column 8 with percentage increase in column 9.

Q. What was the source of the total cost of service data set forth in column 3 of Schedule D of Exhibit No. 7-A?

A. The pro forma costs of service were furnished by the rate department of Pennsylvania-American Water Company, and are set forth in Exhibit No. 3-A.

Q. Refer to Schedule E of Exhibit No. 7-A, and explain the estimated flow and extra capacity demands used in the development of the factors.

A. The factors were based on judgment after a review of experienced Company data.

Q. What factors were considered in estimating the maximum day extra capacity and maximum hour extra capacity demands used for the customer classifications in the development of the factors shown in Schedule C?

A. The estimated demands were based on judgment which considered actual customer class demands conducted for the Company's water operations, 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.

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

A. Yes. The results are summarized in columns 1, 2 and 3 of Schedule A of Exhibit No. 7-A. Column 2 sets forth the total allocated pro forma cost of service as of December 31, 2008 for each customer classification identified in column 1. Column 3 presents each customer classification's cost responsibility as a percent of the total cost.

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 can be made by comparing columns 3 and 5 of Schedule A of Exhibit 7-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 of Exhibit No. 7-A.

CUSTOMER RATE DESIGN

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 radical 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.

Q. Did management provide rate design guidelines to you?

A. Yes, they did. As described in Ms. Lontz's testimony, the guidelines included (1) increase service charges to reflect appropriate levels of cost of service for each classification and, (2) design volumetric charges for each classification to move revenues more in-line with the cost of providing service.

Q. Do the proposed rates comply with these guidelines?

A. Yes, they do

Q. Please describe the rates proposed in this proceeding.

A. The proposed rates consist of service or customer charges for each classification plus a single volumetric charge applicable to each class.

Q. Please explain the increases in the customer charges and volumetric rates.

A. The customer charge under existing rates of $1.86 per month does not recover the fixed costs associated with providing a service lateral for each customer and the costs to bill and collect customers' bills rendered each month. Under proposed rates, the residential customer charge is set at $5.00 per month, the commercial/public rate is set at $15.00 per month and the large industrial and bulk user rate is set at $400.00 per month. These

rates will recover the costs associated with customer facilities and customer accounting.

Volumetric rates were designed to recover the remaining cost of service for each classification so that the proposed revenues by class will move toward the cost of service results.

Q. Do the proposed rates result in movement toward the cost of service for each classification?

A. Yes, as Schedule A on page 7 of Exhibit No. 7-A demonstrates, the revenues under proposed rates for each customer classification are better aligned with the cost of service than the revenues under present rates.

Q. Have you prepared comparisons of present and proposed rates for each classification and each rate zone?

A. Yes. Schedule G of Exhibit No. 7-A presents comparisons of present and proposed rates.

Q. Have you prepared proof of revenue schedules under present and proposed rates?

A. Yes. Schedule H and I of Exhibit No. 7-A, set forth the proof of revenues from the application of present and proposed rates to the customer consumption analysis. Schedule H shows a summary of revenues under present and proposed rates. Schedule I sets forth the detailed application of rates to the billing determinants.

Q. Please explain the capacity fee calculation.

A. When Pennsylvania American acquired the Coatesville Wastewater system, the Authority had a capacity fee in place that became a part of the

Company's tariff. The Company has been charging this capacity fee to new customers since that time.

Q. What is the basis for charging capacity fees?

A. The basis for the fee is the well-recognized system buy-in method as described in AWWA Manual M1, Chapter 28. The system buy-in method is based on the principle of achieving equity between new and existing customers. Capacity fees received from new customers will be recorded as contributions which will reduce rate base and lower the revenue requirement going forward, resulting in a direct benefit to existing customers.

Q. How is the proposed capacity fee calculated?

A. The Company proposes to continue to assess a capacity fee for new customers based on an updated cost analysis as shown on Exhibit No. 7-B, attached to my testimony. The cost analysis shows that the recent or projected cost to replace the interceptor mains and trunk lines is approximately $21.8 million. Added to these costs are the estimated costs for the rehabilitation of the treatment plant of $54 million for a total capacity cost of $75.8 million. This amount is divided by the total new capacity of the treatment of 7 MGD, resulting in a capacity cost of $10.83 per gallon. The $10.83 per gallon of capacity cost is applied to the peak day capacity of a typical residential customer of 300 gpd. This results in a capacity fee of approximately $3,250.

Q. Does this complete your testimony at this time?

A. Yes, it does.

LIST OF CASES IN WHICH PAUL R. HERBERT TESTIFIED

	Year	Jurisdiction	Docket No.	Client/Utility	Subject
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

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

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
31.	2002	Va. St. Corp Cm	PUE-2002-0375	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.	2007	CA PUC	U-339-W	Suburban Water Systems	Water Conservation Rate Design
50.	2007	CA PUC	U-168-W	San Jose Water Company	Water Conservation Rate Design

EXHIBIT NO. 7-B

PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS
Calculation of Capacity Fee

Description		Year	Original Cost	Contributions	Replacement Cost	
Main Interceptor						
BH-1 to PT001	76 LF 24" DIP 998 LF 36" DIP 1,125 LF 42" DIP	2008	$ 2,456,323			
West End Trunk Line						
15 to 575	3,088 LF 30" PVC 210 LF siphon	2008	$1,673,190			
575 to 580	1,834 LF 18" PVC	1995			1,008,700	
580 to 638	13,134 LF 15" PVC	1995			6,567,000	
	9,800 LF 10" DIP FM	1995			1,960,000	
Parkesburg PS		1995			3,000,000	
788 to 800	1,800 LF 18" VCP				990,000	
East End Trunk Line						
16 to 18	630 LF 24" DIP 50 LF siphon	2004	$ 679,990	$ 503,560	-	
18 to 26, 29 to 31	1,744 LF 24" DIP 253 LF 18" DIP	2007	$ 2,144,352	$ 701,967	-	
26 to 29	962 LF 18" VCP	1930's			contributed	
31 to 39	1,145 LF 15" VCP	1930's			1,145,000	
39 to 41	523 LF 15" VCP	1930's			523,000	
41 to 42	253 LF 15" VCP	1930's			253,000 *	
42 to 43A	336 LF 12" VCP	1930's			235,200	
43 to 46	517 LF 10" VCP	1930's			361,900 *	
Total Interceptors and Trunk Lines			$ 6,953,855	$ (1,205,527)	$ 16,043,800	$ 21,792,128
Estimated Cost of Treatment Plant Rehabilitation						54,000,000
Total Cost Related to Capacity Fees						$ 75,792,128
Total Capacity of Treatment Plant, GPD						7,000,000
Cost per Gallon of Capacity						$ 10.83
Peak Day Capacity per EDU						300 gpd
Capacity Fee per EDU						$ 3,248

* Contributions may be received pending agreements with the municipality.

EXHIBIT NO. 7-A
WITNESS: P. R. HERBERT

PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS

HERSHEY, PENNSYLVANIA

COST OF SERVICE ALLOCATION STUDY

AS OF DECEMBER 31, 2008

AND

PROPOSED CUSTOMER RATES

PENNSYLVANIA AMERICAN WATER COMPANY
WASTEWATER OPERATIONS
COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2008

Customer Classification	Cost of Service Amount (Schedule 2)	Cost of Service Percent	Revenues, Present Rates Amount	Revenues, Present Rates Percent	Revenues, Proposed Rates Amount	Revenues, Proposed Rates Percent	Proposed Increase Amount	Proposed Increase Percent Increase
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Residential	$ 2,435,385	48.9%	$ 1,029,897	44.2%	$ 2,359,836	47.3%	$ 1,329,939	129.1%
Commercial/Public*	450,966	9.0%	253,084	10.9%	531,617	10.7%	278,533	110.1%
Industrial**	300,178	6.0%	150,129	6.4%	299,598	6.0%	149,469	99.6%
Bulk Users/VA Hospital	1,800,799	36.1%	896,353	38.5%	1,795,940	36.0%	899,587	100.4%
Total Sales	4,987,328	100.0%	2,329,463	100.0%	4,986,991	100.0%	2,657,528	114.1%
Other Revenues	110,981		83,357		110,981		27,624	33.1%
Total	$ 5,098,309		$ 2,412,820		$ 5,097,972		$ 2,685,152	111.3%

* Commercial/Public includes all other Industrial other than Mittal Steel.
** Include Mittal Steel only.

Schedule A

PENNSYLVANIA AMERICAN WATER COMPANY
WASTEWATER OPERATIONS

ALLOCATION OF COST OF SERVICE BY FUNCTION TO CUSTOMER CLASSIFICATIONS

Description	Flow	Extra Capacity		Infiltration & Inflow	Customer Facilities	Customer Accounting	Total
		Max Day	Max Hour				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total Cost of Service	$ 1,812,586	$ 766,547	$ 804,060	$ 1,162,704	$ 228,967	$ 212,465	$ 4,987,328
Factor Reference	A	B	C	F	D	E	
Residential							
Factor	0.3414	0.3539	0.3929	0.7382	0.7515	0.9366	
Cost of Service	$ 618,817	271,281	315,915	858,308	172,069	198,995	2,435,385
Commercial/Public							
Factor	0.0921	0.0954	0.1059	0.0706	0.1352	0.0598	
Cost of Service	$ 166,939	$ 73,129	85,150	82,087	$ 30,956	12,705	$ 450,966
Industrial							
Factor	0.088	0.0547	0.0608	0.031	0.0579	0.0026	
Cost of Service	$ 159,508	41,930	48,887	36,044	13,257	552	$ 300,178
Bulk Sales							
Factor	0.4785	0.496	0.4404	0.1602	0.0554	0.001	
Cost of Service	$ 867,322	380,207	354,108	186,265	12,685	212	$ 1,800,799
Total	1,812,586	766,547	804,060	1,162,704	228,967	212,464	$ 4,987,328

PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS
FACTORS FOR ALLOCATING COSTS BY FUNCTION TO CUSTOMER CLASSIFICATIONS

FACTOR A. ALLOCATION OF FLOW COSTS.

Factors are based on the pro forma test year average daily consumption for each customer classification.

Classification	Average Daily Consumption, 100 gallons	Allocation Factor
(1)	(2)	(3)
Residential	8,227	0.3414
Commercial/Public	2,218	0.0921
Industrial	2,120	0.0880
Bulk Users	11,528	0.4785
Total	24,093	1.0000

FACTOR B. ALLOCATION OF MAXIMUM DAY EXTRA CAPACITY COSTS.

Factors are based on the maximum day extra capacity demand for each customer classification.

Customer Classification	Average Daily Consumption, 100 gallons	Factor*	Rate of Flow, Thousand Gal. Per Day	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	8,227	0.5	4,113	0.3539
Commercial/Public	2,218	0.5	1,109	0.0954
Industrial	2,120	0.3	636	0.0547
Bulk Users	11,528	0.5	5,764	0.4960
Total	24,093		11,622	1.0000

* Ratio of Maximum Day To Average Day Minus 1.0.

PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS
FACTORS FOR ALLOCATING COSTS BY FUNCTION TO CUSTOMER CLASSIFICATIONS

FACTOR C. ALLOCATION OF MAXIMUM HOUR EXTRA CAPACITY COSTS.

Factors are based on the maximum hour extra capacity demand for each customer classification.

Customer Classification	Average Hourly Consumption, 100 gallons	Factor*	Rate of Flow, Thousand Gal. Per Hour	Allocation Factor
(1)	(2)	(3)	(4)=(2)x(3)	(5)
Residential	342.8	1.0	342.8	0.3929
Commercial/Public	92.4	1.0	92.4	0.1059
Industrial	88.3	0.6	53.0	0.0608
Bulk Users	480.3	0.8	384.2	0.4404
Total	1,003.8		872.4	1.0000

* Ratio of Maximum Hour To Average Hour Minus 1.0.

FACTOR D. ALLOCATION OF COSTS ASSOCIATED WITH CUSTOMER FACILITIES.

Factors are based on the estimated relative cost of customer facilities, as follows:

Customer Classification	Service Equivalents	Allocation Factor
(1)	(2)	(3)
Residential	5,895	0.7515
Commercial/Public	1,061	0.1352
Industrial	454	0.0579
Bulk Users	435	0.0554
Total	7,845	1.0000

PENNSYLVANIA WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS
BASIS FOR ALLOCATING CUSTOMER FACILITIES TO CUSTOMER CLASSIFICATIONS

Meter Size	5/8" Equivalent	Residential		Commercial/Public		Industrial		Bulk Users		Total	
		Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting	Number of Meters	Weighting
(1)	(2)	(3)	(4)=(2)X(3)	(5)	(6)=(2)X(5)	(7)	(8)=(2)X(7)	(15)	(16)=(2)X(15)	(17)	(18)
5/8	1.0	5,670	5,670	247	247	1	1		0	5,918	5,918
3/4	1.5	12	18	4	6		0		0	16	24
1	2.5	31	78	53	133		0		0	84	211
1-1/2	5.0	5	25	19	95	2	10		0	26	130
2	8.0	13	104	35	280	1	8		0	49	392
3	15.0		0	3	45	2	30		0	5	75
4	25.0		0	1	25	5	125		0	6	150
6	50.0		0	3	150	4	200		0	7	350
8	80.0		0	1	80	1	80	4	320	6	480
10	115.0		0		0		0	1	115	1	115
Total		5,731	5,895	366	1,061	16	454	5	435	6,118	7,845

PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS
FACTORS FOR ALLOCATING COSTS BY FUNCTION TO CUSTOMER CLASSIFICATIONS

FACTOR E. ALLOCATION OF COSTS ASSOCIATED WITH BILLING AND COLLECTING.

Factors are based on the number of customers.

Customer Classification	Number of Customers	Allocation Factor
(1)	(2)	(3)
Residential	5,731	0.9366
Commercial/Public	366	0.0598
Industrial	16	0.0026
Bulk Customers	6	0.0010
Total	6,119	1.0000

PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS
FACTORS FOR ALLOCATING COSTS BY FUNCTION TO CUSTOMER CLASSIFICATIONS
FACTOR F. ALLOCATION OF COSTS ASSOCIATED WITH INFILTRATION AND INFLOW.

Factors are based on a 1/3-2/3 weighting of flow and number of customers.

Customer Classification	Average Daily Flow		Number of Customers		Allocation Factor
	Factor A	Weight	Factor E	Weight	
(1)	(2)	(3)=(2) x 0.3333	(4)	(5)=(4) x 0.6667	(6)=(3)+(5)
Residential	0.3414	0.1138	0.9366	0.6244	0.7382
Commercial/Public	0.0921	0.0307	0.0598	0.0399	0.0706
Industrial	0.0880	0.0293	0.0026	0.0017	0.0310
Bulk Users	0.4785	0.1595	0.0010	0.0007	0.1602
Total	1.0000	0.3333	1.0000	0.6667	1.0000

PENNSYLVANIA AMERICAN WATER COMPANY

WASTEWATER OPERATIONS

COST OF SERVICE FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2008, ALLOCATED TO COST FUNCTIONS

Account		Factor Ref.	Cost of Service	Flow	Extra Capacity Max Day	Extra Capacity Max Hour	Infiltration & Inflow	Customer Facilities	Customer Accounting
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	OPERATION AND MAINTENANCE EXPENSES								
	COLLECTION								
615.1	Purchased Power	1	24,159	16,911	0	0	7,248	0	0
616.1	Purchased Fuel	1	1,700	1,190	0	0	510	0	0
675.1	Miscellaneous Operating Expense	3	795	318	0	318	159	0	0
	TOTAL COLLECTION EXPENSE - OPERATION		26,654	18,419	0	318	7,917	0	0
	SEWAGE TREATMENT								
601.3	Salary and Wages	2	249,899	87,465	87,465	0	74,970	0	0
601.4	Salary and Wages	2	89,094	31,183	31,183	0	26,728	0	0
615.3	Purchased Water	1	224,901	157,431	0	0	67,470	0	0
618.3	Chemicals	1	97,180	68,026	0	0	29,154	0	0
620.3	Materials and Supplies - Operation	2	946	331	331	0	284	0	0
631.3	Contract Services - Engineering	2	0	0	0	0	0	0	0
633.3	Contract Services - Legal	2	0	0	0	0	0	0	0
634.3	Contract Services - Management	2	0	0	0	0	0	0	0
635.3	Contract Services Test	2	10,479	3,668	3,668	0	3,144	0	0
636.3	Contract Services - Operation	2	1,721	602	602	0	516	0	0
641.3	Rental of Building	2	0	0	0	0	0	0	0
642.3	Rental of Equipment	2	3,970	1,390	1,390	0	1,191	0	0
650.3	Transportation	2	0	0	0	0	0	0	0
620.4	Materials and Supplies - Maintenance	2	19,881	6,958	6,958	0	5,964	0	0
636.4	Contract Services - Maintenance	2	3,115	1,090	1,090	0	935	0	0
675.4	Misc. Maintenance Expense	2	2,806	982	982	0	842	0	0
675.3	Misc. Operating Expense	2	257,635	90,172	90,172	0	77,291	0	0
	TOTAL SEWAGE TREATMENT EXPENSE		961,627	449,298	223,841	0	288,488	0	0

PENNSYLVANIA AMERICAN WATER COMPANY

WASTEWATER OPERATIONS

COST OF SERVICE FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2008, ALLOCATED TO COST FUNCTIONS

Account		Factor Ref.	Cost of Service	Flow	Extra Capacity Max Day	Extra Capacity Max Hour	Infiltration & Inflow	Customer Facilities	Customer Accounting
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TRANSMISSION								
601.5	Salary and Wages	2	11,398	3,989	3,989	0	3,419	0	0
601.6	Salary and Wages	2	146,260	51,191	51,191	0	43,878	0	0
604.5	Employee Pension and Benefits	2	0	0	0	0	0	0	0
615.5	Purchased Power	1	0	0	0	0	0	0	0
620.5	Materials and Supplies	2	1,882	659	659	0	565	0	0
631.5	Contract Services - Engineering	2	0	0	0	0	0	0	0
636.5	Contract Services	2	5,149	1,802	1,802	0	1,545	0	0
641.5	Rental of Building	2	0	0	0	0	0	0	0
642.5	Rental of Equipment	2	0	0	0	0	0	0	0
650.5	Transportation	2	0	0	0	0	0	0	0
	Miscellanous Operating Expenes	2	44,707	15,647	15,647	0	13,412	0	0
	TOTAL T & D EXPENSE OPERATION		209,396	73,289	73,289	0	62,819	0	0
620.6	Materials and Supplies	2	9,840	3,444	3,444	0	2,952	0	0
636.6	Contract Services	3	423,687	169,475	0	169,475	84,737	0	0
675.6	Miscellaneous Maintenance Expense	2	45,705	15,997	15,997	0	13,712	0	0
675.5	Miscellaneous Operating Expense	2	0	0	0	0	0	0	0
	TOTAL T & D EXPENSE - MAINTENANCE		479,232	188,916	19,441	169,475	101,401	0	0
	TOTAL T & D EXPENSE		688,628	262,204	92,729	169,475	164,220	0	0

PENNSYLVANIA AMERICAN WATER COMPANY

WASTEWATER OPERATIONS

COST OF SERVICE FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2008, ALLOCATED TO COST FUNCTIONS

Account		Factor Ref.	Cost of Service	Flow	Extra Capacity Max Day	Extra Capacity Max Hour	Infiltration & Inflow	Customer Facilities	Customer Accounting
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	CUSTOMER ACCOUNTS								
601.7	Salary and Wages	5	0	0	0	0	0	0	0
620.7	Materials and Supplies	5	0	0	0	0	0	0	0
633.7	Contract Services - Legal	5	0	0	0	0	0	0	0
634.7	Contract Services- Management	5	0	0	0	0	0	0	0
636.7	Contract Services	5	1,187	0	0	0	0	0	1,187
642.7	Rental of Equipment	5	0	0	0	0	0	0	0
650.7	Transporation	5	0	0	0	0	0	0	0
657.7	Insurance	5	0	0	0	0	0	0	0
670.7	Bad Debts	5	154,688	0	0	0	0	0	154,688
675.7	Miscellaneous Expense	5	4,491	0	0	0	0	0	4,491
	TOTAL CUSTOMER ACCOUNTING EXPENSE		160,366	0	0	0	0	0	160,366
	ADMINISTRATIVE AND GENERAL EXPENSES								
601.8	Salaries and Wages	6	34,191	11,163	7,269	3,898	8,178	0	3,682
603.8	Salaries of Officiers	6	0	0	0	0	0	0	0
604.8	Employee Pension & Benefits	7	137,486	47,914	46,910	1,004	40,710	0	949
615.8	Purchased Power	6	0	0	0	0	0	0	0
620.8	Materials and Supplies	6	0	0	0	0	0	0	0
631.8	Contract Services	6	0	0	0	0	0	0	0
632.8	Contract Services - Accounting	6	0	0	0	0	0	0	0
633.8	Contract Services - Legal	6	0	0	0	0	0	0	0
634.8	Contract Services - Management	6	0	0	0	0	0	0	0
635.8	Contract Services - Test	6	0	0	0	0	0	0	0
636.8	Contract Services	6	0	0	0	0	0	0	0
641.8	Rental of Building	6	0	0	0	0	0	0	0
642.8	Rental of Equipment	6	100	33	21	11	24	0	11
650.8	TransporTation	6	98,116	32,035	20,859	11,185	23,469	0	10,567
656.8	Insurance - Vehicles	6	0	0	0	0	0	0	0

PENNSYLVANIA AMERICAN WATER COMPANY

WASTEWATER OPERATIONS

COST OF SERVICE FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2008, ALLOCATED TO COST FUNCTIONS

Account		Factor Ref.	Cost of Service	Flow	Extra Capacity Max Day	Extra Capacity Max Hour	Infiltration & Inflow	Customer Facilities	Customer Accounting
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
657.8	Insurance - Vehicles	6	0	0	0	0	0	0	0
658.8	Workers Compensation	7	(31)	(11)	(11)	(0)	(9)	0	(0)
659.8	Insurance	6	0	0	0	0	0	0	0
660.8	Advertising	6	0	0	0	0	0	0	0
666.8	Amortization of Rate Case	6	260,000	84,890	55,276	29,640	62,192	0	28,002
667.8	Regulatory Commission	6	0	0	0	0	0	0	0
675.8	Miscellaneous Expense	6	4,405	1,438	937	502	1,054	0	474
	TOTAL A & G EXPENSE		534,267	177,462	131,262	46,240	135,618	0	43,685
	Total Operation & Maintenance Expenses		2,371,542	907,383	447,832	216,033	596,242	0	204,051
	DEPRECIATION EXPENSE								
354.20	Structures and Improvements - COLL	3	590	236	0	236	118	0	0
354.00	Structures and Improvements	2	447,505	156,627	156,627	0	134,252	0	0
354.70	Structures and Improvements - GEN	6	8,881	2,900	1,888	1,012	2,124	0	956
355.20	Power Generation Equipment - COLL	3	85	34	0	34	17	0	0
355.40	Power Generation Equipment - TDP	2	2,384	834	834	0	715	0	0
355.50	Power Generation Equipment - RWTP	2	46	16	16	0	14	0	0
360.20	Force Mains	3	48,479	19,392	0	19,392	9,696	0	0
361.10	Collection Sewer Mains	3	228,594	91,438	0	91,438	45,719	0	0
361.20	Manholes	3	18,948	7,579	0	7,579	3,790	0	0
363.20	Service Laterals	4	52,160	0	0	0	0	52,160	0
364.20	Flow Measuring Devices	1	3,060	2,142	0	0	918	0	0
370.30	Receiving Wells	2	190	67	67	0	57	0	0
371.30	Pumping Equipment	2	66,629	23,320	23,320	0	19,989	0	0
380.40	Treatment Equipment	2	115,732	40,506	40,506	0	34,720	0	0
389.10	Other Plant and Misc. Equip. - Intangible	6	28,580	9,331	6,076	3,258	6,836	0	3,078
390.00	Office Furniture and Equipment	6	1,215	397	258	139	291	0	131
392.00	Stores Equipment	6	307	100	65	35	73	0	33
393.00	Tools, Shop and Garge Equipment	6	1,521	497	323	173	364	0	164
394.00	Laboratory Equipment	2	2,940	1,029	1,029	0	882	0	0
395.00	Power Operated Equipment	6	6,589	2,151	1,401	751	1,576	0	710
396.00	Communication Equipment	6	545	178	116	62	130	0	59
397.00	Miscellaneous Equipment	6	20,417	6,666	4,341	2,328	4,884	0	2,199
	Total Depreciation Expense		1,055,397	365,439	236,868	126,437	267,164	52,160	7,330
	Amortization Expense	8	(506,981)	(176,075)	(26,870)	(148,292)	(97,543)	(56,173)	(2,028)

PENNSYLVANIA AMERICAN WATER COMPANY

WASTEWATER OPERATIONS

COST OF SERVICE FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2008, ALLOCATED TO COST FUNCTIONS

Account		Factor Ref.	Cost of Service	Flow	Extra Capacity Max Day	Extra Capacity Max Hour	Infiltration & Inflow	Customer Facilities	Customer Accounting
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Taxes Other Than Income								
685100	Utility Reg Assessment Fee	10	30,746	11,527	6,915	2,103	8,052	0	2,149
685200	Property Taxes	9	36,362	12,629	1,927	10,636	6,996	4,029	145
685320	Payroll Taxes	7	44,894	15,646	15,318	328	13,293	0	310
	Total Taxes, Other Than Income		112,002	39,801	24,160	13,067	28,342	4,029	2,604
	Total Operating Expense		3,031,960	1,136,549	681,990	207,244	794,205	15	211,957
4091	**Income Taxes**	9	428,564	148,840	22,714	125,355	82,456	47,485	1,714
	Utility Income Available for Return	9	1,637,785	568,803	86,803	479,052	315,110	181,467	6,551
	Total Cost of Service		5,098,309	1,854,192	791,506	811,651	1,191,770	228,967	220,222
	Less: Other Water Revenues	10	(110,981)	(41,607)	(24,960)	(7,591)	(29,066)	0	(7,758)
	Total Cost of Service Related to Sales of Wastewater Services		4,987,328	1,812,586	766,547	804,060	1,162,704	228,967	212,465

PENNSYLVANIA AMERICAN WATER
WASTEWATER OPERATIONS

FACTORS FOR ALLOCATING COST OF SERVICE TO COST FUNCTIONS

Reference	Flow	Extra Capacity		Infiltration & Inflow	Customer Facilities	Customer Accounting	Total
		Max Day	Max Hour				
Factor 1 - Flow and I&I	0.7000			0.3000			1.0000
Factor 2 - Flow, I&I and Max Day	0.3500	0.3500		0.3000			1.0000
Factor 3 - Flow, I&I and Max Hour	0.4000		0.4000	0.2000			1.0000
Factor 4 - Customer Facilities					1.0000		1.0000
Factor 5 - Customer Accounting						1.0000	1.0000
Factor 6 - O&M Exp less Power and Chemicals							
Cost	486,363	316,570	169,793	356,243	0	160,366	1,489,335
Factor	0.3265	0.2126	0.1140	0.2392	0.0000	0.1077	1.0000
Factor 7 - Labor Expense							
Cost	184,991	181,097	3,898	157,174	0	3,682	530,842
Factor	0.3485	0.3412	0.0073	0.2961	0.0000	0.0069	1.0000
Factor 8 - Rate Base less Allocated Costs							
Cost	6,576,747	1,003,013	5,539,652	3,644,168	2,098,940	75,563	18,938,083
Factor	0.3473	0.0530	0.2925	0.1924	0.1108	0.0040	1.0000
Factor 9 - Rate Base							
Cost	6,590,355	1,005,089	5,551,113	3,651,706	2,103,281	75,720	18,977,265
Factor	0.3473	0.0530	0.2925	0.1924	0.1108	0.0040	1.0000
Factor 10 - Total Cost of Service							
Cost	1,125,022	675,075	205,141	786,152	15	209,808	3,001,214
Factor	0.3749	0.2249	0.0684	0.2619	0.0000	0.0699	1.0000

PENNSYLVANIA AMERICAN WATER COMPANY

WASTEWATER OPERATIONS

COST OF SERVICE FOR THE TWELVE MONTHS ENDING DECEMBER 31, 2008, ALLOCATED TO COST FUNCTIONS

Account	Factor Ref.	Cost of Service	Flow	Extra Capacity Max Day	Extra Capacity Max Hour	Infiltration & Inflow	Customer Facilities	Customer Accounting
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
RATE BASE								
352.00 Franchises	2	150,569	52,699	52,699	0	45,171	0	0
353.40 Land and Land Rights - TDP	2	71,343	24,970	24,970	0	21,403	0	0
354.20 Structures and Improvements - COLL	3	19,831	7,932	0	7,932	3,966	0	0
354.00 Structures and Improvements	2	1,713,273	599,646	599,646	0	513,982	0	0
354.70 Structures and Improvements - GEN	6	109,035	35,600	23,181	12,430	26,081	0	11,743
355.20 Power Generation Equipment - COLL	3	1,729	692	0	692	346	0	0
355.40 Power Generation Equipment - TDP	2	27,688	9,691	9,691	0	8,306	0	0
355.50 Power Generation Equipment - RWTP	2	920	322	322	0	276	0	0
360.20 Force Mains	3	2,453,983	981,593	0	981,593	490,797	0	0
361.20 Manholes	3	839,185	335,674	0	335,674	167,837	0	0
361.10 Collection Sewer Mains	3	10,334,445	4,133,778	0	4,133,778	2,066,889	0	0
363.20 Service Laterals	4	2,098,940	0	0	0	0	2,098,940	0
364.20 Flow Measuring Devices	1	48,789	34,152	0	0	14,637	0	0
370.30 Receiving Wells	2	7,107	2,487	2,487	0	2,132	0	0
371.30 Pumping Equipment	2	185,905	65,067	65,067	0	55,772	0	0
380.40 Treatment Equipment	2	260,620	91,217	91,217	0	78,186	0	0
389.10 Other Plant and Misc. Equip. - Intangible	6	94,475	30,846	20,085	10,770	22,598	0	10,175
390.00 Office Furniture and Equipment	6	10,112	3,302	2,150	1,153	2,419	0	1,089
392.00 Stores Equipment	6	5,298	1,730	1,126	604	1,267	0	571
393.00 Tools, Shop and Garge Equipment	6	23,230	7,585	4,939	2,648	5,557	0	2,502
394.00 Laboratory Equipment	2	22,150	7,753	7,753	0	6,645	0	0
395.00 Power Operated Equipment	6	51,706	16,882	10,993	5,894	12,368	0	5,569
396.00 Communication Equipment	6	6731	2,198	1,431	767	1,610	0	725
397.00 Miscellaneous Equipment	6	285,251	93,134	60,644	32,519	68,232	0	30,722
TOTAL UTILITY PLANT IN SERVICE SEWER		18,822,315	6,538,949	978,400	5,526,455	3,616,476	2,098,940	63,095
Other Rate Base Items:								
Overheads and AFUCD	8	0	0	0	0	0	0	0
Cash and Working Capital	6	115,768	37,798	24,612	13,198	27,692	0	12,468
Materials and Supplies	8	6,053	2,102	321	1,771	1,165	671	24
Deferred, Accrued and Prepaid Taxes	8	33,129	11,506	1,756	9,690	6,374	3,671	133
Total Other Rate Base Elements		154,950	51,406	26,689	24,658	35,230	4,341	12,625
Total Original Cost Measure of Value		18,977,265	6,590,355	1,005,089	5,551,113	3,651,706	2,103,281	75,720

PENNSYLVANIA AMERICAN WATER
COATESVILLE WASTEWATER OPERATIONS

CALCULATION OF CUSTOMER COST PER MONTH

		Per Month
(1) Cost Related to Customer Facilities	$228,967	
(2) Meter Equivalents X 12	94,140	
(3) Cost per Bill - Meter related		$2.43
(4) Cost Related to Customer Accounting	212,465	
(5) Number of Bills	73,428	
(6) Cost per Bill		$2.89
(7) Total Customer Costs (3)+(6)		$5.33

PENNSYLVANIA AMERICAN WATER
COATESVILLE WASTEWATER OPERATIONS

SUMMARY OF PRESENT AND PROPOSED RATES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2008

	Present Rates		Proposed Rates	
Customer Class	Monthly Service Charge	Usage Charge Per 100 Gallons	Monthly Service Charge	Usage Charge Per 100 Gallons
Residential	1.86	0.302	5.00	0.675
Commercial/Public	1.86	0.302	15.00	0.574
Bulk Customers	1.86	0.213	400.00	0.420
Mittal Steel	1.86	0.194	400.00	0.381
Flat Rate Customers:				
Residential				
X1MF1	18.33		34.36	
X1MF2	19.28		34.36	
X1MF3	12.33		34.36	
Commericial - X2MF2	19.28		34.36	

PENNSYLVANIA AMERICAN WATER
COATESVILLE WASTEWATER OPERATIONS
SUMMARY OF REVENUE UNDER PRESENT AND PROPOSED RATES
FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2008

Customer Classification	Present Rates Revenue 12/31/2008	Bill Analysis Revenues at Base Rates in Effect During Test Year	Adjustment Factor	Bill Analysis Revenues Proposed Rates	Revenues Under Proposed Rates
(1)	(2)	(3)	(4)=(2)/(3)	(5)	(6)=(5)x(4)
METERED SALES					
Residential	$1,029,897	$1,035,310	0.99477125	$2,372,240	$2,359,836
Commercial	204,226	204,010	1.00105877	435,414	435,875
Public without VA Hospital	18,653	18,732	0.99575699	38,356	38,193
Industrial w/o Mittal Steel	30,205	29,989	1.00719123	57,138	57,549
Total Commercial/Public	253,084	252,731		530,907	531,617
Mittal Steel	150,129	150,129	1.00000075	299,598	299,598
Bulk Users	821,796	823,649	0.99775000	1,647,877	1,644,169
VA Hospital	74,557	74,557	1.00000550	151,771	151,771
Total Bulk Users	896,353	898,206		1,799,647	1,795,940
Total Metered Sales	$2,329,463	$2,336,377		$5,002,393	$4,986,991
Other Operating Revenues	83,357	83,357		110,981	110,981
Total	$ 2,412,820	$ 2,419,734		$ 5,113,373	$ 5,097,972

PENNSYLVANIA-AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED DECEMBER 31, 2008

Rate Block 100 Gallons (1)	Number Of Bills (2)	Total Consumption (3)	Present Rate (4)	Revenue (5)	Proposed Rate (6)	Proposed Revenue (7)
			Residential - Monthly			
Service Charge	69,083	0	1.86	128,494	5.00	345,415
All Usage	0	3,002,704	0.3020	906,816	0.6750	2,026,825
Subtotal	0	3,002,704		906,816		2,026,825
Total	69,083	3,002,704		1,035,310		2,372,240
			Commercial - Monthly			
Service Charge	4,157	0	1.86	7,732	15.00	62,355
All Usage	0	649,928	0.3020	196,278	0.5740	373,059
Subtotal	0	649,928		196,278		373,059
Total	4,157	649,928		204,010		435,414
			Public - Monthly			
Service Charge	240	0	1.86	446	15.00	3,600
All Usage	0	60,550	0.3020	18,286	0.5740	34,756
Subtotal	0	60,550		18,286		34,756
Total	240	60,550		18,732		38,356
			Quebecor - Monthly			
Service Charge	12	0	1.86	22.32	15.00	180
All Usage	0	99,230	0.3020	29,967	0.5740	56,958
Subtotal	0	99,230		29,967		56,958
Total	12	99,230		29,989		57,138
Total Class	4,409	809,708		252,731		530,907

PENNSYLVANIA-AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS

APPLICATION OF PRESENT RATES AND PROPOSED RATES TO CONSUMPTION ANALYSIS
YEAR ENDED DECEMBER 31, 2008

Rate Block 100 Gallons (1)	Number Of Bills (2)	Total Consumption (3)	Present Rate (4)	Revenue (5)	Proposed Rate (6)	Proposed Revenue (7)
			Mittal Steel - Monthly			
Service Charge	12	0	1.86	22.32	400.00	4,800
All Usage	0	773,748	0.1940	150,107	0.3810	294,798
Subtotal	0	773,748		150,107		294,798
Total	12	773,748		150,129		299,598
			Bulk Users			
Service Charge	60	0	1.86	112	400.00	24,000
All Usage	0	3,866,373	0.2130	823,537	0.4200	1,623,877
Subtotal	0	3,866,373		823,537		1,623,877
Total	60	3,866,373		823,649		1,647,877
			VA Hospital - Monthly			
Service Charge						
Service Charge	12	0	1.86	22	400.00	4,800
All Usage	0	349,930	0.2130	74,535	0.4200	146,971
Subtotal	0	349,930		74,535		146,971
Total	12	349,930		74,557		151,771
Total Class	72	4,216,303		898,206		1,799,647
Total System	73,576	8,802,463		2,336,377		5,002,393

APPENDIX

RESPONSES TO RATE STRUCTURE
AND
COST OF SERVICE
FILING REQUIREMENTS

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

a. A description of the allocation methods used. A comparison of the allocated cost of service by class with the present and proposed revenues. A cost of service schedule showing the Rate of Return produced by present and proposed rates by class of service.

RESPONSE

A description of the methods used for the cost of service study is provided in PAWC Statement No. 7. A comparison of the allocated cost of service by class with the present and proposed revenues is provided on Schedule A of Exhibit No. 7-A. The attached schedules show the rate of return produced by present and proposed rates by customer classification.

PENNSYLVANIA-AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION
UNDER PRESENT RATES

ITEM	COST OF SERVICE	RESIDENTIAL	COMMERCIAL/ PUBLIC	INDUSTRIAL	BULK USERS
(1)	(2)	(3)	(4)	(5)	(6)
1. REVENUES FROM SALES	2,329,463	1,029,897	253,084	150,129	896,353
2. OTHER REVENUES (BASE ON WATER REVENUE)	110,981	49,066	12,057	7,152	42,704
3. TOTAL OPERATING REVENUES	2,440,444	1,078,963	265,141	157,282	939,057
4. LESS: OPERATING EXPENSES	2,949,619	1,406,500	256,236	176,349	1,110,530
5. RETURN AND INCOME TAXES	(509,175)	(327,537)	8,905	(19,067)	(171,473)
6. LESS: TAXABLE EXCLUSIONS - ALLOCATED ON RATE BASE	614,835	295,355	59,564	39,195	220,721
7. TAXABLE INCOME	(1,124,010)	(622,892)	(50,659)	(58,262)	(392,194)
8. LESS: INCOME TAXES (TAX. INC.)	(644,673)	(309,687)	(62,454)	(41,097)	(231,435)
9. NET RETURN (Line 5 - Line 8)	135,498	(17,850)	71,359	22,030	59,962
10. ORIGINAL COSTS MEASURE OF VALUE	18,977,264	9,116,320	1,838,489	1,209,771	6,812,684
11. RATE OF RETURN, PERCENT	0.71	(0.20)	3.88	1.82	0.88
12. RELATIVE RATE OF RETURN	1.00	(0.27)	5.44	2.55	1.23

PENNSYLVANIA-AMERICAN WATER COMPANY
COATESVILLE WASTEWATER OPERATIONS
DEVELOPMENT OF RATE OF RETURN BY CUSTOMER CLASSIFICATION
UNDER PROPOSED RATES

ITEM	COST OF SERVICE	RESIDENTIAL	COMMERCIAL/ PUBLIC	INDUSTRIAL	BULK USERS
(1)	(2)	(3)	(4)	(5)	(6)
1. REVENUES FROM SALES	4,986,991	2,359,836	531,617	299,598	1,795,940
2. OTHER REVENUES (BASE ON WATER REVENUE)	110,981	52,516	11,831	6,667	39,967
3. TOTAL OPERATING REVENUES	5,097,972	2,412,352	543,447	306,265	1,835,907
4. LESS: OPERATING EXPENSES	3,031,960	1,495,613	260,433	175,094	1,100,820
5. RETURN AND INCOME TAXES	2,066,012	916,739	283,014	131,172	735,087
6. LESS: TAXABLE EXCLUSIONS - ALLOCATED ON RATE BASE	614,835	295,925	59,530	39,125	220,255
7. TAXABLE INCOME	1,451,177	620,814	223,484	92,047	514,832
8. LESS: INCOME TAXES (TAX. INC.)	428,564	206,264	41,494	27,271	153,534
9. NET RETURN (Line 5 - Line 8)	1,637,448	710,475	241,520	103,901	581,553
10. ORIGINAL COSTS MEASURE OF VALUE	18,977,265	9,133,905	1,837,423	1,207,617	6,798,320
11. RATE OF RETURN, PERCENT	8.63	7.78	13.14	8.60	8.55
12. RELATIVE RATE OF RETURN	1.00	0.90	1.52	1.00	0.99

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

b. Indicate if the method used for establishing the allocation factors in the Cost of Service Study deviates from the previous study submitted in the last rate case. If yes, indicate which allocation factors were changed and discuss the reason for the changes.

RESPONSE

This study is the first cost of service study for this wastewater system.

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

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c. Supply the average day, the maximum day and the maximum hour deliveries to the system adjusted for storage for the test year and two prior years. Also provide workpapers, analyses, comparative data or other documentation supporting the estimated maximum day and peak hour demands by customer class reflected in the Company's cost of service study.

RESPONSE

	2007
Average Daily Flow	3.65 MGD
Peak Day Flow	8.16
Peak Hour Flow	N/A
Customer Class Factors	N/A

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

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d. Explain thoroughly the methodology employed if the Company distinguishes between transmission and distribution mains in its allocation of costs.

RESPONSE

For the wastewater system, the Company distinguishes mains as trunk and interceptor mains from collecting mains. Trunk and interceptor mains are generally 10-inch and larger and collecting mains are less than 10-inch.

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

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e. Provide a detailed explanation of how storage is utilized to meet base, maximum day and maximum hour demands.

RESPONSE

There is no storage for this system.

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

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f. Provide workpapers, calculations and supporting documentation which develop the equivalent meters and equivalent service weights reflected in the Company's cost of service study.

RESPONSE

The 5/8-inch equivalent was determined by using the recommended standard minimum meter flow capacity ratios per the American Waterworks Association.

Meter Size	5/8-Inch Equivalent
5/8"	1.0
3/4"	1.5
1"	2.5
1-1/2"	5.0
2"	8.0
3"	15.0
4"	25.0
6"	50.0
8"	80.0
10"	115.0

There are no service equivalents calculated for this study.

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
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g. Provide all workpapers and supporting documentation for the fire flow requirement and duration utilized in the cost of service study.

RESPONSE

Because this is a wastewater operation, there is no fire flow requirement.

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

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h. Provide a breakdown of the number and size of private fire services according to the general water service class of customer.

RESPONSE

Because this is a wastewater operation, there are no private fire services.

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

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i. Provide a calculation of the Company's base cost of water per unit of consumption.

RESPONSE

The calculation of the base cost of usage per hundred gallons is as follows:

Flow Cost of Usage	$1,809,535
Pro Forma Usage (Hundred Gallons)	8,793,766
Base Cost per Hundred Gallons	$0.2058

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
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j. Provide a detailed cost analysis that supports the Company's customer charges, by meter size, showing all direct and indirect costs included.

RESPONSE

Please refer to the attached schedule.

PENNSYLVANIA AMERICAN WATER
COATESVILLE WASTEWATER OPERATIONS

CALCULATION OF CUSTOMER COST PER MONTH

		Per Month
(1) Cost Related to Customer Facilities	$228,967	
(2) Meter Equivalents X 12	94,140	
(3) Cost per Bill - Meter related		$2.43
(4) Cost Related to Customer Accounting	212,465	
(5) Number of Bills	73,428	
(6) Cost per Bill		$2.89
(7) Total Customer Costs (3)+(6)		$5.33

PENNSYLVANIA-AMERICAN WATER COMPANY

RESPONSES TO RATE STRUCTURE
AND COST OF SERVICE FILING REQUIREMENTS

RS2. Provide a listing of negotiated special rate contracts which includes a comparison of revenues under special rate contracts and under tariff rates. Provide the cost of service treatment of any deficiency in revenues resulting from the negotiated special rate contracts.

RESPONSE

There are no negotiated special rate contracts that are not under a tariff rate.