

**DIRECT TESTIMONY  
OF  
JOHN R. COX**

**WITH REGARD TO  
PENNSYLVANIA AMERICAN WATER  
CLAYSVILLE WASTEWATER OPERATIONS**

**CLAIMED  
RATE BASE,  
DEPRECIATION & AMORTIZATIONS,  
O&M EXPENSES  
AND  
TAXES, OTHER THAN INCOME**

**DOCKET NO. R-2010-2166210**

**DATE: April 23, 2010**

1 **I. INTRODUCTION**

2 1. **Q. What is your name and business address?**

3 A. My name is John R. Cox. My business address is 800 West Hersheypark Drive,  
4 Hershey, Pennsylvania 17033.

5 2. **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Pennsylvania American Water (“PAW” or the “Company”) as  
7 Manager of Rates and Regulations..

8 3. **Q. Please summarize your educational background and professional experience.**

9 A. I am a 1985 graduate of Shippensburg University of Pennsylvania with a Bachelor  
10 of Science degree in Business Administration, with a major in accounting. In  
11 1999, I received my Masters Degree in Business Management from Lebanon  
12 Valley College. I have also completed the continuing education program  
13 sponsored by the National Association of Regulatory Utility Commissioners  
14 (NARUC) and the University of Utah.

15 I have been employed by American Water Works Company Service Company  
16 or Pennsylvania American Water since June 1986. From 1986 through June 1988  
17 I served as a staff accountant in the Accounting Department. In July 1988 I was  
18 transferred to the Rate Department and in July 1989 I was promoted to Senior  
19 Rate Analyst. In 1991 I was promoted to accounting supervisor and held that  
20 position until December 2000 when I was promoted to Fleet and Materials  
21 Management Superintendent. In July 2004 I was promoted to the position of

1 Senior Financial Analyst assigned to the Finance Department. In 2007, I was  
2 promoted to my current position of Manager of Rates and Regulations.

3 **4. Q. What are your duties as Manager of Rates and Regulation?**

4 **A.** My duties include the preparation and presentation of rate applications for PAW.  
5 In addition, I am responsible for certain aspects of the financial, budgeting and  
6 regulatory compliance functions of the company.

7 **5. Q. Have you previously submitted testimony before the Pennsylvania Public  
8 Utility Commission?**

9 **A.** Yes. I have previously presented testimony on accounting and rate matters before  
10 this Commission. I have also prepared water rate applications presented before  
11 the Maryland Public Service Commission and the Virginia State Corporation  
12 Commission.

13 **6. Q. What is the purpose of your testimony?**

14 **A.** The purpose of my testimony is to explain the portions of Exhibit No. 1 that I am  
15 sponsoring, which relate to the Company's claims for rate base, depreciation  
16 expense, operating expenses and taxes other than income taxes.

1 **II. RATE BASE**

2 **7. Q. What is the Company's rate base claim in this proceeding?**

3 **A.** The Company's claim is \$2,673,048, which reflects its projected rate base as of  
4 December 31, 2010, and is shown on page 9 of Exhibit No. 1.

5 **8. Q. What are the elements of the Company's rate base claim?**

6 **A.** Rate base consists of several elements. The first and largest element is the  
7 depreciated original cost of net plant in service. To this amount three items are  
8 added: materials and supplies, cash working capital and accrued taxes net of  
9 prepaid taxes. Two items are deducted: a net offset against cash working capital  
10 requirements for accrued interest and preferred dividends prior to payout and  
11 deferred taxes.

12 **9. Q. Please explain how the depreciated original cost of net plant at December 31,**  
13 **2010 was determined.**

14 **A.** Net plant is total plant in service less contributions-in-aid-of-construction  
15 ("CIAC") and customer advances for construction ("CAC"). Depreciated original  
16 cost is original cost less accrued depreciation. The original cost of net utility plant  
17 in service at December 31, 2010 is the amount recorded in PAW's plant accounts  
18 at December 31, 2009 plus projected additions net of retirements, less CIAC and  
19 CAC. The original cost of plant in service at December 31, 2009 and the original  
20 cost of claimed additions and retirements, shown by detailed plant account, are set  
21 forth in Exhibit No. 1, page 10. Mr. Kaufman discusses the more significant plant

1 additions in his testimony. The accrued depreciation at December 31, 2010  
2 related to net plant in service was determined by the Company's depreciation  
3 consultant, John J. Spanos, and is shown in Exhibit No. 1 at page 9, line 9.

4 **10. Q. Do the continuing property records, as maintained by the Company,**  
5 **accurately reflect additions and retirements to plant?**

6 **A.** Yes, they do.

7 **11. Q. Are the data shown on the Company's continuing property records an**  
8 **accurate basis for developing the original cost of property?**

9 **A.** Yes, they are.

10 **12. Q. Has the Company made any adjustments to its historic test year end CIAC**  
11 **and CAC balances?**

12 **A.** Yes, it has. The December 31, 2009 CIAC balance has been increased to reflect  
13 \$179,666 of additional contributions to be recorded during the future test year.  
14 The amount of \$179,666 consists of \$155, 666 of additional developer CIAC to be  
15 received during 2010 and a transfer of \$24,000 from CAC. Both the developer  
16 contribution in 2010 and the CAC are for the same project, a 1,284' sewer main  
17 extension. The adjustment for CIAC is shown on page 11 of Exhibit 1. The CAC  
18 balance has been reduced by \$24,000 to reflect the transfer of CAC to CIAC  
19 during the future test year, and is shown on page 12 of Exhibit 1.

1 13. Q. **Please explain the addition to rate base for materials and supplies.**

2 A. In accordance with procedures approved by the Commission, the Company's  
3 materials and supplies claim was determined by averaging the monthly balances  
4 of the materials and supplies account for the thirteen months ended December 31,  
5 2009. The calculation of the materials and supplies allowance is shown on page  
6 13 of Exhibit No. 1.

7 14. Q. **Please explain the Company's claim for cash working capital.**

8 A. The cash working capital requirement is calculated by multiplying the net lag days  
9 (revenue lag days less expense lag days) by the average operating expenses per  
10 day (total operating expenses / 365 days). All calculations have been made to one  
11 decimal place. In accordance with Commission policy, uncollectible accounts  
12 expense was subtracted from total operating expenses before making the  
13 calculation. The calculation of the gross cash working capital requirement is  
14 shown in Exhibit No. 1 at page 14.

15 15. Q. **Please describe how the revenue and expense lags were determined.**

16 A. Revenue and expense lags were determined by a lead-lag study. The revenue lag  
17 consists of three components: (1) the lag from the midpoint of the service period  
18 to the end of the service period, i.e., the meter-read date; (2) the time required for  
19 bill preparation and mailing, and (3) the lag in receipt of payment. The first  
20 component is calculated as follows: the number of days in 2009 is first divided by  
21 the customer billings per year of 12. That figure is divided by 2 to determine the

1 interval from the midpoint to the end of the service period. The final result of  
2 15.2 days is the service period lag.

3 The second component is billing lag. The billing lag of 4 days used for this  
4 calculation was approved in the final Order in the Company's rate proceeding at  
5 Docket No. R-932670.

6 The third component, however, requires a further calculation to determine the  
7 average length of time that revenues are outstanding before payment. This  
8 calculation was performed as follows: (1) daily accounts receivable balances for  
9 the twelve months ended December 31, 2009 were summed and the total divided  
10 by number of days in 2009 to determine the average accounts receivable balance  
11 per day; (2) the Company's total revenue from water and wastewater sales for the  
12 twelve months ended December 31, 2009 was divided by the number of days in  
13 2009 to determine the average revenue billed per day; and (3) the average  
14 accounts receivable balance per day was divided by the average revenue billed per  
15 day. The result of the division in (3), above, yields the number of days on average  
16 that billed revenue was outstanding prior to receipt of payment. This is a standard  
17 calculation that is used by other water utilities in Pennsylvania. The detailed  
18 calculations of the 50.5 revenue lag days appear in the supporting schedules of the  
19 filing.

20 The expense lag was based upon a comprehensive lag study submitted in the  
21 Company's 2009 water rate filing, at Docket No. R-2009-2097323. Using  
22 procedures that had been approved by the Commission in prior proceedings and

1 data obtained from the Company's centralized accounts payable system, samples  
2 of expense vouchers for each category of expense were analyzed to determine the  
3 lag between the receipt of goods or services and the applicable payment due date.  
4 A summary of the expense lags by category is shown on page 15 of Exhibit No. 1.  
5 The revenue lag based on total Company sales and the expense lag days from the  
6 Company's 2009 water rate case are appropriate for calculating CWC in this case.

7 **16. Q. Please explain the addition to rate base for accrued and prepaid taxes.**

8 **A.** This addition to rate base reflects the fact that, on balance, taxes are paid in  
9 advance. The lead/lag in payment of Pennsylvania corporate net income tax is  
10 based on four equal payments throughout the year. The federal income tax was  
11 based upon statutory payment schedules. The General Assessment tax was  
12 calculated based upon actual payment dates in 2009 and page 17 of Exhibit No. 1  
13 sets forth the calculation of the lead/lag days for all of the aforementioned taxes.  
14 The net lead/lag days for each tax are then applied to the pro forma tax amounts,  
15 as shown on page 16 of Exhibit No. 1, to calculate the overall working capital  
16 effect which, in this instance, is positive. Thus, the average net lead in payment of  
17 these taxes constitutes an addition to cash working capital requirements and,  
18 therefore, is reflected as a rate base addition.

19 **17. Q. Please explain the items that were deducted from rate base.**

20 **A.** The first deduction, which offsets cash working capital requirements, relates to  
21 the average net lag in payment of interest on long-term debt and dividends on

1 preferred stock. It was calculated using procedures previously approved by the  
2 Commission and is set forth in Exhibit No. 1 on page 18.

3 The second deduction from rate base is for accumulated deferred taxes related to  
4 the normalization of the federal income tax effect of the Company's use of the  
5 Accelerated Cost Recovery System for post-1980 vintages of public utility  
6 property and the Modified Accelerated Cost Recovery System for post 1986  
7 vintages of public utility property. Page 19 of Exhibit No. 1 shows the balance of  
8 deferred income taxes at December 31, 2009 and as projected at December 31,  
9 2010. The Company does not maintain separate deferred tax accounts for the  
10 wastewater operations. The deferred taxes were calculated on a stand-alone basis,  
11 based on the difference between book and tax depreciation applicable to the  
12 Claysville wastewater operations. The results of these calculations are detailed in  
13 the supporting schedules of the filing.

14 **18. Q. Did the Company consider the effect of bonus depreciation in computing its**  
15 **balance of deferred taxes?**

16 **A.** Yes, for 2008 and 2009 the effects of bonus depreciation were considered in  
17 developing the Company's claim for deferred taxes. The tax effect of bonus  
18 depreciation results in a commensurate reduction in the Company's rate base  
19 claim.

20 **19. Q. Do the adjustments explained above constitute all of the adjustments**  
21 **necessary to establish the Company's rate base?**

22 **A.** Yes, they do.

1                                   **III.     DEPRECIATION & AMORTIZATION EXPENSE**

2 **20.   Q.        Have adjustments been made to annual depreciation expense?**

3        **A.**        Yes. Adjustments to booked amounts were made to reflect the annual  
4                    depreciation accrual for the Company's plant in service as of December 31, 2010.  
5                    The annual accrual was determined largely on a Straight-Line Average Remaining  
6                    Life basis. The adjustments to reflect the annual accrual for depreciation related to  
7                    plant in service at December 31, 2010 are shown in Exhibit No. 1 at page 33 and,  
8                    as noted previously, are explained and sponsored by Mr. Spanos.

9                                   **IV.     OPERATING AND MAINTENANCE EXPENSES**

10 **21.   Q.        Please explain the development of pro forma operating and maintenance**  
11 **(O&M) expenses as set forth in Exhibit No. 1.**

12        **A.**        Pro forma Operating and Maintenance (“O&M”) expenses have been developed  
13                    in a manner consistent with previous rate filings. In general, booked data for the  
14                    historic test year were used as a starting point and were then adjusted to reflect the  
15                    effects of changes which will occur by or shortly after December 31, 2010. The  
16                    development of pro forma O&M expenses begins on pages 20 and 21 of Exhibit  
17                    No. 1 with a two-page summary by account. The first column of the summary  
18                    shows the per books amounts for the HTY ended December 31, 2009. The second  
19                    column shows the pro forma expenses for the HTY including ratemaking  
20                    adjustments. The third column shows pro forma expenses for the FTY ending  
21                    December 31, 2010 as adjusted for ratemaking purposes. All adjustments made in

1 developing pro forma expenses are summarized on page 22 of Exhibit No. 1.

2 Following the summary page, on separate pages, are the details of each specific

3 adjustment.

4 **22. Q. Please explain the Company's claim for salaries and wages expense.**

5 **A.** The adjustment to salary and wage expense shown on page 23 of Exhibit No. 1

6 was made to reflect the Company's projected complement of hourly employees as

7 of the end of the future test year and to annualize the impact of wage rate

8 increases, to be granted through June 30, 2011. The annualization of salary and

9 wage rate increases for a period of six months beyond the future test year was

10 approved by the Commission in its Orders at Docket Nos. R-00943231, R-

11 00016339 and R-00038304. The details of these calculations are set forth in the

12 supporting schedules of the filing.

13 **23. Q. What was the basis for the increases in wages and salaries used in developing**  
14 **the Company's claim?**

15 **A.** Wage and salary expense was annualized for hourly employees based on the

16 actual increases granted as of January 2010. In addition wage and salary expense

17 was further annualized to reflect a 3% increase projected to become effective on

18 January 1, 2011 for hourly employees.

1 24. Q. How did the Company determine the portion of total wages and salaries to be  
2 charged to expense?

3 A. During the historic test year ended December 31, 2009, 100% of direct labor cost  
4 for the employees claimed in the pro forma salary and labor claim was charged to  
5 O&M expense accounts. The same relationship was assumed in developing the  
6 Company's future test year claims.

7 25. Q. Please explain the development of the adjustment for group insurance shown  
8 on page 24 of Exhibit No. 1.

9 A. The annualized employee group insurance expense for the twelve months ended  
10 December 31, 2010 was calculated by first determining the annualized group  
11 insurance cost per employee at January 31, 2010. The annualized group insurance  
12 cost per employee was then applied to the future test year full time complement of  
13 2 employees, and an amount representing the employee contribution for healthcare  
14 coverage was subtracted. The result is the Company's annualized group insurance  
15 cost. Details of this adjustment are contained in supporting schedules of the  
16 filing.

17 26. Q. Are there any other payroll-related expenses?

18 A. Yes, there are two. First, page 34 of Exhibit No. 1 sets forth the Company's claim  
19 for payroll taxes based on historic and future test year salary and wage expense.  
20 Second, on page 25 of Exhibit No. 1, the Company has made a future test year

1 claim for 401K and defined contribution plan costs. The detailed calculations of  
2 these adjustments are contained in supporting schedules of the filing.

3 **27. Q. Please explain the Company's claim for chemical expense.**

4 **A.** PAW utilizes various chemicals in the wastewater treatment process. In order to  
5 secure the best available pricing, the Company participates in the American Water  
6 competitive bidding process to establish unit price contracts for the chemical  
7 requirements at its various treatment facilities throughout the state. The  
8 adjustment annualizes chemical costs based on historic test year usage and known  
9 changes. The adjustment is summarized on page 26 of Exhibit No. 1 and  
10 additional work papers are included in supporting schedules of the filing.

11 **28. Q. Please explain the purchased power expense adjustment on page 27 of**  
12 **Exhibit No. 1.**

13 **A.** The Company's adjustment for purchased power expense reflects the application  
14 of power rates to be in effect as of the end of the Future Test Year ("FTY"). The  
15 11% Allegheny Power rate increase effective January 2010 was applied to the test  
16 year level of expenses to arrive at the Company's pro forma expense claim. The  
17 work papers for this adjustment are contained in the supporting schedules of the  
18 filing.

1 29. **Q. Please describe the adjustment to waste disposal expense.**

2 **A.** The development of the Company's adjustment for waste disposal expense  
3 reflects the application of actual contract rates to be in effect as of the end of the  
4 FTY to the test year quantities. The adjustment is summarized on page 31 of  
5 Exhibit No. 1 and the work papers detailing the adjustment are contained in the  
6 supporting schedules of the filing.

7 30. **Q. Please explain the pro forma adjustment for regulatory/rate case expense.**

8 **A.** The Company's adjustment for regulatory/rate case expense is shown on Page 28  
9 of Exhibit No. 1. The adjustment shows the development of the estimated costs of  
10 this rate case. The Company proposes to recover the estimated costs for the  
11 preparation and litigation of this case over a 24 month period, which is the  
12 expected interval between rate filings.

13 31. **Q. Please explain the adjustment to remove items from the Company's O&M  
14 claim found on page 30 of Exhibit 1.**

15 **A.** Page 30 of Exhibit 1 sets forth items that are being eliminated, or require an  
16 adjustment to the Company's O&M claim in this proceeding. Fines incurred and  
17 the costs of manhole upgrades incorrectly recorded to expense during the HTY  
18 were removed. Costs for lab supplies and certain maintenance costs recorded in  
19 the test year represent more than one year of ongoing costs and were reduced to  
20 normalized amounts. The final item included in this adjustment is to annualize  
21 the cost of a copier lease for the Claysville wastewater operation.

1 32. Q. **Please explain the Company's adjustment for inflation.**

2 A. This adjustment, as shown on page 29 of Exhibit No. 1, is made to reflect the  
3 effect of inflation on those HTY expenses that were not otherwise adjusted. The  
4 adjustment is based upon the average of the quarterly forecasted change in GDP  
5 for all four quarters of 2010 that was obtained from the Blue Chip Financial  
6 Forecasts. Details for this adjustment are contained in supporting schedules of the  
7 filing.

8 33. Q. **Please explain the Company's claim for uncollectible accounts expense.**

9 A. Page 32 of Exhibit No. 1 shows the Company's claim developed by applying the  
10 2009 ratio of net write-offs to FTY levels of wastewater sales revenue. The  
11 Company acquired the Claysville wastewater operation in 2008. The data to  
12 compute a three-year average percentage of net write-offs is not available. The  
13 2009 ratio of net write-offs applied to the FTY levels of wastewater sales revenue  
14 is appropriate to project ongoing uncollectible expense.

15 **V. TAXES OTHER THAN INCOME TAXES**

16 34. Q. **Please explain the adjustment for General Assessments on page 35 of Exhibit**  
17 **No. 1.**

18 A. The General Assessments are imposed on regulated utilities to provide funding for  
19 the Commission, the OCA and the OSBA. The General Assessment rates are

1 applied to a tax base consisting of revenue from wastewater sales. To calculate  
2 pro forma General Assessments, the current assessment rates were applied to a tax  
3 base consisting of pro forma sales revenue under present and proposed rates. The  
4 Company will update this adjustment with the new rates once they are available.

5 **35. Q. Does this conclude your testimony at this time?**

6 **A.** Yes, it does.