

**DIRECT TESTIMONY  
OF  
JOHN R. COX**

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

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

**DOCKET NO. R-2010-2166208**

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

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

1 Analyst assigned to the Finance Department. In 2007, I was promoted to my current  
2 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. In  
5 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 Utility  
8 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 the  
11 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, certain 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 \$8,285,606, which reflects its projected rate base as of  
4 December 31, 2010, and is shown on page 11 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 prepaid  
9 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 ("CIAC")  
15 and customer advances for construction ("CAC"). Depreciated original cost is  
16 original cost less accrued depreciation. The original cost of net utility plant in  
17 service at December 31, 2010 is the amount recorded in PAW's plant accounts at  
18 December 31, 2009 plus projected additions net of retirements, less CIAC and CAC.  
19 The original cost of plant in service at December 31, 2009 and the original cost of  
20 claimed additions and retirements, shown by detailed plant account, are set forth in  
21 Exhibit No. 1, page 12. Mr. Kaufman discusses the more significant plant additions

1 in his testimony. The accrued depreciation at December 31, 2010 related to net plant  
2 in service was determined by the Company's depreciation consultant, John J. Spanos,  
3 and is shown in Exhibit No. 1 at page 11, line 9.

4 **10. Q. Do the continuing property records, as maintained by the Company, accurately**  
5 **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 accurate**  
8 **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 and**  
11 **CAC balances?**

12 **A.** Yes, it has. The December 31, 2009 CIAC balance has been increased to reflect  
13 \$33,640 of additional sewer capacity fees projected to be received during the FTY.  
14 The details of this adjustment are shown on page 13 of Exhibit No. 1.

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

16 **A.** In accordance with procedures approved by the Commission, the Company's  
17 materials and supplies claim was determined by averaging the monthly balances of  
18 the materials and supplies account for the thirteen months ended December 31, 2009.

1 The calculation of the materials and supplies allowance is shown on page 14 of  
2 Exhibit No. 1.

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

4 **A.** The cash working capital requirement is calculated by multiplying the net lag days  
5 (revenue lag days less expense lag days) by the average operating expenses per day  
6 (total operating expenses / 365 days). All calculations have been made to one  
7 decimal place. In accordance with Commission policy, uncollectible accounts  
8 expense was subtracted from total operating expenses before making the calculation.  
9 The calculation of the gross cash working capital requirement is shown in Exhibit  
10 No. 1 at page 15.

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

12 **A.** Revenue and expense lags were determined by a lead-lag study. The revenue lag  
13 consists of three components: (1) the lag from the midpoint of the service period to  
14 the end of the service period, i.e., the meter-read date; (2) the time required for bill  
15 preparation and mailing, and (3) the lag in receipt of payment. The first component  
16 is calculated as follows: the number of days in 2009 is first divided by the customer  
17 billings per year of 12. That figure is divided by 2 to determine the interval from the  
18 midpoint to the end of the service period. The final result of 15.2 days is the service  
19 period lag. The second component is billing lag. The billing lag of 4 days used for  
20 this calculation was approved in the final Order in the Company's rate proceeding at  
21 Docket No. R-932670.

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

14 The expense lag was based upon a comprehensive lag study submitted in the  
15 Company's 2009 water rate filing, at Docket No. R-2009-2097323. Using  
16 procedures that had been approved by the Commission in prior proceedings and data  
17 obtained from the Company's centralized accounts payable system, samples of  
18 expense vouchers for each category of expense were analyzed to determine the lag  
19 between the receipt of goods or services and the applicable payment due date. A  
20 summary of the expense lags by category is shown on page 16 of Exhibit No. 1. The  
21 revenue lag based on total Company sales and the expense lag days from the  
22 Company's 2009 water rate case are appropriate for calculating CWC in this case.

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

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

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

14 A. The first deduction, which offsets cash working capital requirements, relates to the  
15 average net lag in payment of interest on long-term debt and dividends on preferred  
16 stock. It was calculated using procedures previously approved by the Commission  
17 and is set forth in Exhibit No. 1 on page 19.

18 The second deduction from rate base is for accumulated deferred taxes related to the  
19 normalization of the federal income tax effect of the Company's use of the  
20 Accelerated Cost Recovery System for post-1980 vintages of public utility property  
21 and the Modified Accelerated Cost Recovery System for post 1986 vintages of

1 public utility property. Page 20 of Exhibit No. 1 shows the balance of deferred  
2 income taxes at December 31, 2009 and as projected at December 31, 2010. The  
3 Company does not maintain separate deferred tax accounts for the wastewater  
4 operations. As a result, deferred taxes were calculated on a stand-alone basis for the  
5 Clarion wastewater operations and are detailed in the supporting schedules of the  
6 filing.

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

9 **A.** Yes, for 2008 and 2009 the effect of bonus depreciation was considered in  
10 developing the Company's claim for deferred taxes. The tax effect of bonus  
11 depreciation results in a commensurate reduction in the Company's rate base claim.

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

14 **A.** Yes, they do.

15 **III. DEPRECIATION & AMORTIZATION EXPENSE**

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

17 **A.** Yes. Adjustments to booked amounts were made to reflect the annual depreciation  
18 accrual for the Company's plant in service as of December 31, 2010. The annual  
19 accrual was determined largely on a Straight-Line Average Remaining Life basis.  
20 The adjustments to reflect the annual accrual for depreciation related to plant in

1 service at December 31, 2010 are shown in Exhibit No. 1 at page 36 and, as noted  
2 previously, are explained and sponsored by Mr. Spanos.

3 **IV. OPERATING AND MAINTENANCE EXPENSES**

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

6 **A.** Pro forma Operating and Maintenance (“O&M”) expenses have been developed in a  
7 manner consistent with previous rate filings. In general, booked data for the historic  
8 test year were used as a starting point and were then adjusted to reflect the effects of  
9 changes which will occur by or shortly after December 31, 2010. The development  
10 of pro forma O&M expenses begins on pages 21 and 22 of Exhibit No. 1 with a two-  
11 page summary by account. The first column of the summary shows the per books  
12 amounts for the HTY ended December 31, 2009. The second column shows the pro  
13 forma expenses for the HTY including ratemaking adjustments. The third column  
14 shows pro forma expenses for the FTY ending December 31, 2010 as adjusted for  
15 ratemaking purposes. All adjustments made in developing pro forma expenses are  
16 summarized on page 23 of Exhibit No. 1. Following the summary page, on separate  
17 pages, are the details of each specific adjustment.

18 **22. Q. Please explain the Company’s claim for salaries and wages expense.**

19 **A.** The adjustment to salary and wage expense shown on page 24 of Exhibit No. 1 was  
20 made to reflect the Company’s projected complement of hourly and salaried  
21 employees as of the end of the future test year and to annualize the impact of salary

1 and wage rate increases, including annual incentive pay, to be granted through June  
2 30, 2011. The annualization of salary and wage rate increases for a period of six  
3 months beyond the future test year was approved by the Commission in its Orders at  
4 Docket Nos. R-00943231, R-00016339 and R-00038304. The details of these  
5 calculations are set forth in the supporting schedules of the filing.

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

8 **A.** Wage and salary expense was annualized for hourly employees and salaried  
9 employees based on the actual increases granted as of January 2010. In addition,  
10 wage and salary expense was further annualized to reflect a 3% increase projected to  
11 become effective on January 1, 2011 for both hourly and salaried employees.

12 **24. Q. Why has the Company claimed the costs associated with its Annual Incentive**  
13 **Pay (AIP) program as part of its overall salaries and wage expense?**

14 **A.** The Company acquired Clarion wastewater operations in 2008. The data to compute  
15 a three-year average percentage of actual AIP expense is not available. To calculate  
16 an ongoing level, the Company utilized the eligible employee's AIP target of 10%.  
17 The Company recognizes the opportunity and the accountability its employees share  
18 in achieving the superior level of service they provide to customers. The Company  
19 uses a combination of salary and incentive compensation to attract and retain  
20 employees, and improve performance and efficiency. Competition for quality  
21 employees is keen. In recruiting new employees or retaining existing employees, we

1 are competing with general industry in the state and the region, which includes  
2 companies in the pharmaceutical, manufacturing, high tech, and service industries in  
3 addition to other water utilities and energy companies. Our incentive compensation  
4 plan is designed to provide our employees with a total compensation package that is  
5 on par with those offered by companies with whom we compete for employees. Our  
6 incentive compensation plan emphasizes customer service, environmental  
7 compliance, a safe work environment, and other operational goals, as well as certain  
8 financial goals which focus on efficient operation. The companies with whom we  
9 compete for employees as a norm offer a compensation package that includes an  
10 incentive program. We would be at a competitive disadvantage in the marketplace if  
11 incentive compensation was deleted from our overall compensation package. In that  
12 situation, we believe we would lose the ability to attract and retain the talented  
13 people we need. Our incentive plan is not an “extra”, but rather is an essential part  
14 of what we hope makes our compensation reasonable in comparison to other  
15 companies with whom we compete for employees.

16 **25. Q. How did the Company determine the portion of total wages and salaries to be**  
17 **charged to expense?**

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

1 26. Q. **Please explain the development of the adjustment for group insurance shown on**  
2 **page 25 of Exhibit No. 1.**

3 A. The annualized employee group insurance expense for the twelve months ended  
4 December 31, 2010 was calculated by first determining the annualized group  
5 insurance cost per employee at January 31, 2010. The annualized group insurance  
6 cost per employee was then applied to the future test year complement of 4  
7 employees, and an amount representing the employee contribution for healthcare  
8 coverage was subtracted. The result is the Company's annualized group insurance  
9 cost. Details of this adjustment are contained in supporting schedules of the filing.

10 27. Q. **Are there any other payroll-related expenses?**

11 A. Yes, there are two. First, page 37 of Exhibit No. 1 sets forth the Company's claim for  
12 payroll taxes based on historic and future test year salary and wage expense levels.  
13 Second, on page 26 of Exhibit No. 1, the Company has made a future test year claim  
14 for 401K and defined contribution plan costs. The detailed calculations of these  
15 adjustments are contained in supporting schedules of the filing.

16 28. Q. **Please explain the Company's claim for chemical expense.**

17 A. PAW utilizes various chemicals in the wastewater treatment process. In order to  
18 secure the best available pricing, the Company participates in the American Water  
19 competitive bidding process to establish unit price contracts for the chemical  
20 requirements at its various treatment facilities throughout the state. The adjustment  
21 annualizes chemical costs based on historic test year usage, adjusted for known

1 changes. The adjustment is summarized on page 27 of Exhibit No. 1 and additional  
2 work papers are included in supporting schedules of the filing.

3 **29. Q. Please explain the purchased power expense adjustment shown on page 28 of**  
4 **Exhibit No. 1.**

5 **A.** The Company's adjustment for purchased power expense reflects the application of  
6 power rates to be in effect as of the end of the Future Test Year. The 11% Allegheny  
7 Power rate increase effective January 2010 was applied to the test year level of  
8 expenses to arrive at the Company's pro forma expense claim. The work papers for  
9 this adjustment are contained in supporting schedules of the filing.

10 **30. Q. Please describe the adjustment to waste disposal expense.**

11 **A.** The development of the Company's adjustment for waste disposal expense reflects  
12 the application of actual contract rates to be in effect as of the end of the FTY  
13 adjusted for known changes in quantity. During the test year, the Company incurred  
14 costs associated with solidification removal process that reflected more than one  
15 year's expense. These costs were reduced by two thirds to reflect an ongoing level of  
16 expense. The adjustment is summarized on page 33 of Exhibit No. 1. The work  
17 papers detailing the adjustment are contained in the supporting schedules of the  
18 filing.

19 **31. Q. Please explain the adjustment necessary to account for changes in customer**  
20 **consumption.**

1        **A.**        Page 34 of Exhibit No. 1 shows the adjustment to operating expenses to reflect the  
2                    changes in power, chemical and waste disposal costs due to changes in pro forma  
3                    wastewater usage. The adjustment was calculated by computing the ratio of Historic  
4                    Test Year (“HTY”) power, chemical and waste disposal costs to actual HTY usage.  
5                    This ratio was then applied to the change in usage between the FTY and the HTY.

6 **32.    Q.**        **Please explain the Company’s claim for leased vehicles.**

7        **A.**        The Company will begin purchasing vehicles in 2010. The adjustment for leased  
8                    vehicle expense shown on page 29 of Exhibit No. 1 reflects this change in policy.  
9                    The lease expenses associated with the two vehicles assigned to the Clarion  
10                    wastewater operations that are being replaced have been eliminated.

11 **33.    Q.**        **Please explain the pro forma adjustment for regulatory/rate case expense.**

12        **A.**        The Company’s adjustment for regulatory/rate case expense is shown on Page 30 of  
13                    Exhibit No. 1. The adjustment shows the development of the estimated costs of this  
14                    rate case. The Company proposes to recover the estimated costs for the preparation  
15                    and litigation of this case over a 24 month period, which is the expected interval  
16                    between rate filings.

17 **34.    Q.**        **Please explain the adjustment to remove items from the O&M claim.**

18        **A.**        Page 31 of Exhibit 1 sets forth items that are being eliminated or normalized from  
19                    the Company’s O&M claim in this proceeding. Memberships, fines and cost of a  
20                    refund of a tap-in fee incurred during the HTY were removed. Historical test year

1 costs associated with a digester cleaning was normalized based on a 10 year cycle to  
2 reflect an annual cost. Certain maintenance and lab costs incurred in the HTY were  
3 also reduced by 50% to reflect an ongoing annual level.

4 **35. Q. Please explain the adjustment for inflation shown on page 32 of Exhibit No. 1.**

5 **A.** This adjustment is made to reflect the effect of inflation on those HTY expenses that  
6 were not otherwise adjusted. The adjustment is based upon the average of the  
7 quarterly forecasted change in GDP for all four quarters of 2010 that was obtained  
8 from the Blue Chip Financial Forecasts. Details for this adjustment are contained in  
9 supporting schedules.

10 **36. Q. Please explain the Company's claim for uncollectible accounts expense.**

11 **A.** Page 35 of Exhibit No. 1 shows the Company's claim developed by applying the  
12 2009 ratio of net write-offs to FTY levels of wastewater sales revenue. The  
13 Company acquired the Clarion wastewater operation in 2008. The data to compute a  
14 three-year average percentage of net write-offs is not available. The 2009 ratio of net  
15 write-offs applied to FTY levels of wastewater sales revenue is appropriate to project  
16 ongoing uncollectible expense.

