

**DIRECT TESTIMONY
OF
JOHN R. COX**

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

**CLAIMED
RATE BASE,
DEPRECIATION & AMORTIZATIONS,
O&M EXPENSES
(EXCLUDING LABOR / LABOR RELATED)
AND
TAXES, OTHER THAN INCOME**

DOCKET NO. R-2010-2166212

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 the American Water Works Service or Pennsylvania
16 American Water since June 1986. From 1986 through June 1988 I served as a
17 staff accountant in the Accounting Department. In July 1988 I was transferred to
18 the Rate Department and in July 1989 I was promoted to Senior Rate Analyst. In
19 1991 I was promoted to accounting supervisor and held that position until
20 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
2 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. 3-A that I
15 am 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 \$77,627,439, which reflects its projected rate base as of
4 December 31, 2010, and is shown on page 10 of Exhibit No. 3-A.

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 four items are
8 added: materials and supplies, cash working capital, accrued taxes net of prepaid
9 taxes, and a Commission-approved adjustment for the unrecovered original cost
10 of the existing wastewater treatment plant that has been retired. Two items are
11 deducted: a net offset against cash working capital requirements for accrued
12 interest and preferred dividends prior to payout and deferred taxes.

13 **9. Q. Please explain how the depreciated original cost of net plant at December 31,**
14 **2010 was determined.**

15 **A.** Net plant is total plant in service less contributions-in-aid-of-construction
16 ("CIAC") and customer advances for construction ("CAC"). Depreciated original
17 cost is original cost less accrued depreciation. The original cost of net utility plant
18 in service at December 31, 2010 is the amount recorded in PAW's plant accounts
19 at December 31, 2009 plus projected additions net of retirements, less CIAC and
20 CAC. The original cost of plant in service at December 31, 2009 and the original
21 cost of claimed additions and retirements, shown by detailed plant account, are set

1 forth in Exhibit No. 3-A, page 11. Mr. Kaufman discusses the more significant
2 plant additions in his testimony. The accrued depreciation at December 31, 2010
3 related to net plant in service was determined by the Company's depreciation
4 consultant, John J. Spanos, and is shown in Exhibit No. 3-A at page 10, line 9.

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

7 **A.** Yes, they do.

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

10 **A.** Yes, they are.

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

13 **A.** Yes, it has. The December 31, 2009 CIAC balance has been increased to reflect
14 \$2,116,448 of additional contributions projected to be received during the future
15 test year. The \$2,116,448 consists of: (1) \$1,770,068 of new developer funded
16 projects; (2) \$94,785 of developer funded projects transferred from CAC to
17 CIAC; (3) a contribution of \$144,495 for flood damaged equipment that the
18 Company anticipates will be reimbursed by its insurance carrier; and (4) projected
19 capacity reservation fee of \$107,100. The CAC balance has been reduced by
20 \$94,785 to reflect the transfer of CAC to CIAC during the future test year.

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 15 of Exhibit No. 3-A.

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. 3-A at page 16.

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 the number of days in 2009 to determine the average accounts receivable
11 balance per day; (2) the Company's total revenue from water and wastewater sales
12 for the twelve months ended December 31, 2009 was divided by the number of
13 days in 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 response to Question No.
19 FR V. 8 of the Company's Standard Filing Requirements.

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 17 of Exhibit No. 3-
5 A. The revenue lag based on total Company sales and the expense lag days from
6 the Company's 2009 water rate case are appropriate for calculating CWC in this
7 case.

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

9 **A.** This addition to rate base reflects the fact that, on balance, taxes are paid in
10 advance. The lead/lag in payment of Pennsylvania corporate net income tax is
11 based on four equal payments throughout the year. The federal income tax was
12 based upon statutory payment schedules. The General Assessment tax and
13 property tax were calculated based upon actual payment dates in 2009 and page 19
14 of Exhibit No. 3-A sets forth the calculation of the lead/lag days for all of the
15 aforementioned taxes. The net lead/lag days for each tax are then applied to the
16 pro forma tax amounts, as shown on page 18 of Exhibit No. 3-A, to calculate the
17 overall working capital effect which, in this instance, is positive. Thus, the
18 average net lead in payment of these taxes constitutes an addition to cash working
19 capital requirements and, therefore, is reflected as a rate base addition.

1 17. Q. Please explain the Company's claim for "un-recovered original cost of
2 existing wastewater treatment plant" detailed on page 14 of the Company's
3 Exhibit No. 3-A.

4 A. In accordance with the Commission's Order at Docket No. R-2008-2032689
5 adopted November 13, 2008, the Company was authorized to recover the un-
6 recovered original cost of the existing wastewater treatment plant property over a
7 period of 10 years, beginning on the effective date of the rates established in that
8 case. The adjustment detailed on page 14 of Exhibit No. 3-A reflects the pro
9 forma un-recovered original cost at December 31, 2010 as an addition to rate base.

10 18. Q. Please explain the items that were deducted from rate base.

11 A. The first deduction, which offsets cash working capital requirements, relates to
12 the average net lag in payment of interest on long-term debt and dividends on
13 preferred stock. It was calculated using procedures previously approved by the
14 Commission and is set forth in Exhibit No. 3-A on page 20.

15 The second deduction from rate base is for accumulated deferred taxes related to
16 the normalization of the federal income tax effect of the Company's use of the
17 Accelerated Cost Recovery System for post-1980 vintages of public utility
18 property and the Modified Accelerated Cost Recovery System for post 1986
19 vintages of public utility property. Page 21 of Exhibit No. 3-A shows the balance
20 of deferred income taxes at December 31, 2009 and as projected at December 31,
21 2010. The Company does not maintain separate deferred tax accounts for the

1 wastewater operations. The deferred taxes were calculated on a stand-alone basis,
2 based on the difference between book and tax depreciation applicable to the
3 Coatesville wastewater operations. The results of these calculations are detailed
4 in response to Question No. FR IV. 4 of the Company's Standard Filing
5 Requirements.

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

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

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

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

15 **III. DEPRECIATION & AMORTIZATION EXPENSE**

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

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

1 plant in service at December 31, 2010 are shown in Exhibit No. 3-A at page 37
2 and, as noted previously, are explained and sponsored by Mr. Spanos.

3 **22. Q. Please explain the claim for “Amortizations” that appears on page 1 of**
4 **Exhibit No. 3-A.**

5 **A.** The amortization shown on page 1, line 5, of Exhibit No. 3-A to reduce operating
6 expense by \$456,503 consists of the following items: (1) the amortization of a
7 negative acquisition adjustment of \$506,981; and (2) the amortization of the un-
8 recovered original cost of the existing wastewater treatment plant in the amount of
9 \$50,478 which was previously discussed in the rate base section of my testimony.

10 Both amortizations are in accordance with the Commission’s November 13, 2008
11 Order at Docket No. R-2008-2032689.

12 **IV. OPERATING AND MAINTENANCE EXPENSES**
13 **(EXCLUDING LABOR / LABOR RELATED)**

14 **23. Q. Please explain the development of pro forma operating and maintenance**
15 **(O&M) expenses as set forth in Exhibit No. 3-A.**

16 **A.** Pro forma Operating and Maintenance (“O&M”) expenses have been developed
17 in a manner consistent with previous rate filings. In general, booked data for the
18 historic test year were used as a starting point and were then adjusted to reflect the
19 effects of changes which will occur by or shortly after December 31, 2010. The
20 development of pro forma O&M expenses begins on pages 22 and 23 of Exhibit
21 No. 3-A with a two-page summary by account. The first column of the summary

1 shows the per books amounts for the HTY ended December 31, 2009. The second
2 column shows the pro forma expenses for the HTY including ratemaking
3 adjustments. The third column shows pro forma expenses for the FTY ending
4 December 31, 2010 as adjusted for ratemaking purposes. All adjustments made in
5 developing pro forma expenses are summarized on page 24 of Exhibit No. 3-A.
6 Following the summary page, on separate pages, are the details of each specific
7 adjustment.

8 **24. Q. Please explain the Company's claim for chemical expense.**

9 **A.** PAW utilizes various chemicals in the wastewater treatment process. In order to
10 secure the best available pricing, the Company participates in the American Water
11 competitive bidding process to establish unit price contracts for the chemical
12 requirements at its various treatment facilities throughout the state. The
13 adjustment annualizes chemical costs based on historic test year usage, adjusted
14 for changes associated with the new treatment facility. The adjustment is
15 summarized on page 28 of Exhibit No. 3-A, and additional supporting workpapers
16 are included in Exhibit No. 3-B.

17 **25. Q. Please explain the purchased power expense adjustment.**

18 **A.** The Company's adjustment for purchased power expense reflects the application
19 of power rates to be in effect as of the end of the Future Test Year ("FTY")
20 adjusted for changes in power usage associated with the new treatment facility.
21 To compute the pro forma power expense for the new treatment plant, an average

1 bill for PECO - account number 1123086118 was calculated based on the last four
2 months of 2009. This period reflects the power expense when a large portion of
3 the new treatment plant was in-service. To the adjusted expense level, two rate
4 increases were applied. First a PECO rate increase of 2% effective February 2010
5 was annualized, and then a PECO average rate increase of 3.7% effective January
6 2011 was applied. The adjustment is summarized on page 29 of Exhibit No. 3-A.
7 Supporting workpapers are contained in Exhibit No. 3-B.

8 **26. Q. Please describe the adjustment to waste disposal expense.**

9 **A.** The development of the Company's adjustment for waste disposal expense
10 reflects the application of actual contract rates to be in effect as of the end of the
11 FTY to projected quantities associated with the new treatment facility. As a result
12 of constructing the treatment facility, the historic test year quantities of waste
13 disposal are not representative of an on-going level. To compute the pro forma
14 waste disposal expense claim, the level waste disposal incurred during the first six
15 months of 2009 were annualized and the contract rates to be in effect as of the end
16 of the FTY were applied. The adjustment is summarized on page 33 of Exhibit
17 No. 3-A. Supporting work papers detailing the method used are contained in
18 Exhibit No. 3-B

19 **27. Q. Please explain the Company's claim for leased vehicle expense.**

20 **A.** The Company's adjustment for leased vehicle expense is shown on page 30 of
21 Exhibit No. 3-A. Detailed supporting calculations are provided in Exhibit No. 3-

1 B. The FTY claim reflects the number of vehicles to be leased and the applicable
2 lease cost per vehicle at December 31, 2010.

3 **28. Q. Please explain the pro forma adjustment for regulatory/rate case expense.**

4 A. The Company's adjustment for regulatory/rate case expense is shown on Page 31
5 of Exhibit No. 3-A. The adjustment shows the development of the estimated costs
6 of this rate case, less the amount charged to operating expense during the 12
7 months ended 12/31/09. The Company proposes to recover the estimated costs
8 for the preparation and litigation of this case over a 24 month period, which is the
9 expected interval between rate filings.

10 **29. Q. Please explain the adjustment to remove items from the O&M claim.**

11 A. Page 35 of Exhibit 3-A sets forth items that are being eliminated from the
12 Company's O&M claim in this proceeding. The eliminated items include
13 advertising expense that was charged to the Coatesville wastewater operations in
14 error, a normalization of maintenance costs associated with a pump replacement
15 for the wastewater vacuum truck and removal of test year costs associated with
16 the establishment of a reserve for a conveyance agreement the Company has with
17 Valley Township.

18 **30. Q. Please describe the conveyance agreement with Valley Township.**

19 A. During 2009, the Company became aware of two agreements that the former
20 owner, the City of Coatesville Authority (CCA), had entered into with Valley

1 Township in the early 1990s to provide for conveyance of wastewater of certain
2 customers of CCA through Valley Township's collection system. These
3 agreements provide for a payment from the Company to Valley Township for the
4 conveyance of this waste. The Company is currently in discussions with Valley
5 Township concerning these agreements. When final consensus is reached
6 concerning this issue, the Company will update its rate filing.

7 **31. Q. Please explain the adjustment for inflation shown on page 32 of Exhibit No.**
8 **3-A.**

9 **A.** This adjustment is made to reflect the effect of inflation on those HTY expenses
10 that were not otherwise adjusted. The adjustment is based upon the average of the
11 quarterly forecasted change in GDP for all four quarters of 2010 that was obtained
12 from the Blue Chip Financial Forecasts. Details for this adjustment are contained
13 in Exhibit No. 3-B.

14 **32. Q. Please explain the Company's claim for uncollectible accounts expense.**

15 **A.** Page 36 of Exhibit No. 3-A shows the Company's claim developed by applying
16 the three year average ratio of net write-offs to FTY levels of wastewater sales
17 revenue.

