

**BEFORE THE
STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES
OFFICE OF ADMINISTRATIVE LAW**

In the Matter of:

**THE JOINT PETITION OF THE CITY OF
TRENTON, NEW JERSEY AND NEW JERSEY
AMERICAN WATER COMPANY, INC. FOR
AUTHORIZATION OF THE PURCHASE AND
SALE OF THE ASSETS OF THE OUTSIDE
WATER UTILITY SYSTEM ("OWUS") OF THE
CITY OF TRENTON, NEW JERSEY AND FOR
OTHER RELIEF**

**BPU Docket No.
WM08010063**

**OAL Docket No.
PUC 3514-08**

DIRECT TESTIMONY AND EXHIBITS OF

HOWARD J. WOODS, JR., P.E.

**ON BEHALF OF THE
NEW JERSEY
DEPARTMENT OF THE PUBLIC ADVOCATE
DIVISION OF RATE COUNSEL**

ENGINEERING

**RONALD K. CHEN
PUBLIC ADVOCATE FOR THE STATE OF NEW JERSEY**

**STEFANIE A. BRAND, ESQ.
DIRECTOR, DIVISION OF RATE COUNSEL**

Division of Rate Counsel
31 Clinton Street, 11th Floor
P.O. Box 46005
Newark, New Jersey 07101

June 26, 2008

1 **I. STATEMENT OF QUALIFICATIONS**

2 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**

3 A. My name is Howard J. Woods, Jr. and my address is 138 Liberty Drive, Newtown,
4 Pennsylvania 18940-1111.

5
6 **Q. BY WHOM ARE YOU EMPLOYED?**

7 A. I am an independent consultant and the Department of the Public Advocate,
8 Division of Rate Counsel has engaged me in this matter.

9
10 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND**
11 **PROFESSIONAL QUALIFICATIONS.**

12 A. I hold a Bachelor of Civil Engineering Degree from Villanova University (1977)
13 and a Master of Civil Engineering Degree with a concentration in water resources
14 engineering also from Villanova University (1985). I am a registered professional
15 engineer in New Jersey, New York, Maryland, Pennsylvania, Delaware and New
16 Mexico. I am also licensed to perform RAM-WSM security assessments of public
17 water systems. I am an active member of the American Society of Civil
18 Engineers, the National Ground Water Association, the American Water Works
19 Association, the Water Environment Federation and the International Water
20 Association.

21

1 **III. SUMMARY OF FINDINGS AND CONCLUSIONS**

2 **Q. HAVE YOU FORMED AN OPINION CONCERNING THE JOINT**
3 **PETITIONERS' PROPOSAL TO SELL THE OWUS TO NEW JERSEY**
4 **AMERICAN WATER COMPANY?**

5 A. Yes, I have. I believe that the proposal will unfairly burden the existing customers
6 of the OWUS and New Jersey American Water Company with additional costs that
7 would not otherwise be incurred were it not for the proposed transaction.
8 Furthermore, I believe that the Joint Petitioners' arguments in favor of the proposal
9 rely on assumed benefits that are not fully supported and in some cases cannot be
10 realized. It is my opinion that the proposal should be rejected.

11

12 **Q. WHAT COSTS WILL ULTIMATELY BE BORNE BY NEW JERSEY**
13 **AMERICAN WATER COMPANY CUSTOMERS IF THE PROPOSED**
14 **TRANSACTION IS APPROVED?**

15 A. The Company has asked for rate base treatment of the full purchase price offered
16 for the system, or \$100,000,000. In addition, they have asked to recover as a rate
17 base item, transactional costs that include the reimbursement of up to \$500,000 in
18 costs incurred by the City of Trenton. Beyond these items, the Company will be
19 obligated to complete an emergency interconnection project at a cost estimated at
20 \$6,000,000, incur various system separation costs now estimated at approximately
21 \$13,800,000 and install new control equipment at an estimated cost of \$368,000.
22 These projects represent more than \$20,000,000 of additional capital expenses that

1 would be incurred after the proposed closing and represent expenses that would not
2 be incurred by New Jersey American Water Company, and ultimately borne by its
3 customers, except for this proposed transaction.

4

5 **Q. HAS THE CITY OF TRENTON SUGGESTED A NEED FOR A LARGE**
6 **RATE INCREASE IF THE PROPOSED TRANSACTION DOES NOT**
7 **CLOSE?**

8 A. Yes, the City has suggested a 40% rate increase would be imposed on the OWUS
9 customers.

10

11 **Q. DO YOU BELIEVE THAT THIS RATE INCREASE IS NECESSARY?**

12 A. No. An inspection of budget information presented by the Joint Petitioners shows
13 that the suggested rate increase is driven in part by a doubling of the amount of
14 funds to be transferred from the water system fund to the City's current fund.
15 These transfers appear to exceed statutory limits. In addition, the rate increase is
16 predicated on fixed "inflationary" adjustments that would not typically be accepted
17 in a rate proceeding brought before the New Jersey Board of Public Utilities
18 ("Board"). Furthermore, the need for a rate increase is based on no growth at all in
19 revenues when information presented in this matter clearly shows continued modest
20 growth in the system and particularly in the OWUS. If adjustments are made for
21 these items alone, the projected rate increase would be reduced from 40% to no
22 more than 21%.

23

1 **Q. HAS NEW JERSEY AMERICAN WATER COMPANY PROPOSED A**
2 **RATE INCREASE THAT WOULD BE APPLICABLE TO THE OWUS**
3 **CUSTOMERS?**

4 A. Yes. They have proposed a tariff that would increase rates for a typical OWUS
5 customer by 35.9% and also indicated that this rate proposal is merely a waypoint
6 that will lead to the imposition of the Company's Rate Schedule A-1 rates. If the
7 A-1 rates proposed in the Company's current base rate adjustment application were
8 ultimately approved and implemented in the OWUS, typical customers of this
9 system would experience a 114% rate increase.

10

11 **Q. DO YOU BELIEVE THAT THE PROPOSED TRANSACTION WILL BE**
12 **SUPPORTED BY REVENUES THAT WILL BE DERIVED FROM THE**
13 **OWUS CUSTOMERS?**

14 A. No, even if the rates proposed by the Company are approved in full, the revenues
15 derived from the OWUS will not be sufficient to recover all operating expenses
16 including the cost of purchased water. The estimated annual loss before the cost of
17 capital is considered is nearly \$3,000,000. The cost of capital for the proposed
18 acquisition price based on the Company's last rate Order would be \$8,000,000.
19 These shortfall estimates do not include the impact of capitalized transaction costs,
20 Capital Improvement Charges to be levied by the City or the impact of any capital
21 expenses that will be incurred to divide the system into the Inside Water Utility
22 System ("IWUS") and OWUS. Effectively, the cost of capital for the acquisition
23 and a large portion of the purchased water cost will be borne by existing ratepayers

1 of New Jersey American Water Company if the proposed transaction is approved.
2 For this reason, approval of the proposed transaction should be rejected.
3

4 **Q. HAVE THE JOINT PETITIONERS ENTERED INTO A WATER SUPPLY**
5 **AGREEMENT THAT WILL CONTINUE IN FORCE BEYOND THE**
6 **PROPOSED ASSET SALE?**

7 A. Yes. The Joint Petitioners have executed a Water Supply Agreement that will
8 obligate the City of Trenton to produce and deliver water to the OWUS and
9 obligate New Jersey American Water Company to take and pay for this water for a
10 period of twenty years.
11

12 **Q. WHAT IS THE ANNUAL COST OF THE WATER SUPPLY AGREEMENT**
13 **TO NEW JERSEY AMERICAN WATER COMPANY?**

14 A. The base cost of water supply is estimated at \$11,809,000. In addition, the Water
15 Supply Agreement will obligate New Jersey American Water Company to pay debt
16 service costs that the City has estimated will be as much as \$3,400,000 per year.
17

18 **Q. HOW HAS THE COMPANY PROPOSED THESE COSTS BE TREATED?**

19 A. They have proposed to include these expenses in the Purchased Water Adjustment
20 Clause (PWAC). Considering that PWAC charges levied against OWUS
21 customers will fall far short of the actual costs, all existing customers of New Jersey
22 American Water Company, with the exception of Manasquan Customers, will bear
23 the burden of the unrecovered expense. Given that the current PWAC rate will only

1 produce approximately \$1,400,000 in PWAC charges from the OWUS, the shortfall
2 that would impact existing New Jersey American Water Company customers is
3 potentially as much as \$13,800,000.¹

4
5 **Q. DO YOU BELIEVE THE RATE SET IN THE WATER SUPPLY**
6 **AGREEMENT IS FAIR AND REASONABLE?**

7 A. No, I do not. I believe the rate of \$2.060 per thousand gallons was developed
8 without proper consideration of the impact that the proceeds of the proposed sale
9 would have on the outstanding debt of the Trenton Water Works.

10
11 **Q. HOW WILL THE RATE BE ADJUSTED GOING FORWARD?**

12 A. The Water Supply Agreement requires annual adjustments in the rate based on
13 changes in the Consumer Price Index. I believe this will result in rates that do not
14 properly reflect the cost of providing wholesale service. If a proper wholesale rate
15 were set in the Water Supply Agreement, the CPI adjustment method could put
16 Trenton IWUS customers at risk of subsidizing wholesale service in the future if the
17 true cost of providing service exceeds the CPI.

18
19 **Q. HAS NEW JERSEY AMERICAN WATER COMPANY PROPOSED TO**
20 **IMPLEMENT ANY NEW TARIFF RATES IN CONCERT WITH THE**
21 **PROPOSED TRANSACTION?**

¹ Calculation: \$11,809,000 + \$3,400,000 - \$1,400,000 = \$13,809,000.

1 A. The Company has proposed to implement a wheeling rate of \$0.8310 per thousand
2 gallons, which will potentially be levied against Lawrenceville Water Company
3 and Aqua New Jersey along with water sales charges that will continue to be
4 collected by Trenton. These customers now pay \$1.51 per hundred cubic feet or
5 \$2.018 per thousand gallons, so the proposed wheeling rate represents a 41.2%
6 increase in the cost of wholesale water purchased by these entities.
7

8 **Q. WAS THIS RATE BASED ON THE COST OF TRANSPORTING WATER**
9 **SOLEY THROUGH THE OWUS?**

10 A. No, the proposed rate is based on transmission costs incurred by other wholesale
11 customers served by New Jersey American Water Company even though these
12 other customers pay no separate wheeling rate.
13

14 **Q. DO YOU BELIEVE THE PROPOSED RATE WILL FAIRLY RECOVER**
15 **THE COST OF TRANSPORTING WATER THROUGH THE OWUS IF**
16 **THE PROPOSED TRANSACTION IS APPROVED?**

17 A. No. The proposed rate is based on a combination of expenses and sales that have
18 nothing to do with the OWUS.
19

20 **Q. DOES THE ACT OF DIVIDING THE TRENTON WATER WORKS INTO**
21 **THE IWUS AND OWUS RESULT IN ANY LABOR AND OPERATING**
22 **INEFFICIENCIES?**

1 A. Yes. The total number of positions required to operate the divided IWUS and
2 OWUS systems exceeds the number of positions required to operate the Trenton
3 Water Works system in its current state. This inefficiency will result in additional
4 labor and labor related costs that would be on the order of \$1,045,000 per year. In
5 addition, New Jersey American Water Company proposes to lease a new operating
6 center at an annual total cost of \$73,500 per year. These additional costs would
7 not be incurred absent the proposed transactions

8

9 **Q. DO YOU BELIEVE THAT THE PROPOSED TRANSACTION REQUIRES**
10 **APPROVAL OF THE DELAWARE RIVER BASIN COMMISSION?**

11 A. Yes. The proposed transaction raises a number of issues regarding the allotment
12 and regulation of water uses within and outside of the Delaware River Basin. The
13 transfer of water outside of the basin, as would be possible given the construction
14 of interconnections between the Trenton Water Works system and the New Jersey
15 American Raritan system, is strictly regulated by the Delaware River Basin
16 Commission (or the “Commission”) as a result of a Supreme Court Decree and the
17 agreement of the signatories to the Delaware River Basin Compact. The existing
18 interconnections appear to have been constructed without the prior approval of the
19 Delaware River Basin Commission (or the “Commission”) and the division of the
20 Trenton Water Works system into the IWUS and OWUS creates issues that require
21 prior review and action by the Delaware River Basin Commission (or the
22 “Commission”).

23

1 **IV. ASSESSMENT OF THE AGREEMENT OF SALE**

2 *A. Summary of the Agreement of Sale*

3 **Q. DID THE JOINT PETITIONERS SUBMIT AN AGREEMENT OF SALE**
4 **WITH THEIR FILING?**

5 A. Yes. The “Agreement of Sale between City of Trenton and New Jersey
6 American Water Company, Inc.,” dated December 21, 2007 was submitted as
7 Exhibit JP-12, (the “Agreement”).

8
9 **Q. PLEASE DESCRIBE THE AGREEMENT OF SALE.**

10 A. This is an agreement between the City of Trenton and New Jersey American
11 Water Company governing the proposed change in ownership of the water
12 distribution network referred to as the OWUS. The Agreement establishes the
13 purchase price for the OWUS at \$100,000,000.² In addition, the Agreement
14 obligates New Jersey American Water Company to reimburse the City of
15 Trenton for as much as \$500,000 in transactional costs associated with the sale of
16 the OWUS.³ The Agreement contemplates that certain Orders and approvals will
17 be obtained from regulatory bodies, notably the New Jersey Board of Public
18 Utilities prior to the proposed closing.

19
20 **Q. PLEASE DESCRIBE THE TRENTON WATER SYSTEM.**

² JP-12, p. 12, Paragraph 2(d).

³ JP-12, p. 13, Paragraph 2(e).

1 A. The Trenton Water Works is a municipally-owned water utility serving 62,863
2 customers in the City of Trenton and the Townships of Hamilton, Ewing,
3 Lawrence and Hopewell.⁴ The utility draws water from the Delaware River for
4 treatment at a single water treatment facility located in the City of Trenton on the
5 banks of the Delaware River and adjacent to State Route 29 and the Calhoun
6 Street Bridge.⁵ Treated water is distributed to the system's customers through a
7 distribution network comprised of 3,413,527 feet, or approximately 646 miles, of
8 pipelines ranging in size from 4 inches to 36 inches in diameter.⁶ The
9 distribution system also includes seven treated water storage facilities, including
10 the 95 million gallon Pennington Reservoir.⁷ For FY 2005, the system delivered
11 9,611,912 thousand gallons⁸ or an average of 26.3 Million Gallons per Day
12 (MGD). Of this amount, metered sales amounted to 6,301,225 thousand gallons
13 or an average of 17.3 MGD.⁹ The amount of non-revenue water for the system,
14 as calculated in Schedule HJW-1 was 34.4%. Utility Plant In Service at the end
15 of FY 2007 amounted to \$158,959,497 at original cost for the entire system.¹⁰
16 This included \$86,199,727 of original cost utility plant classified as
17 Transmission & Distribution Plant.

⁴ RCR-E-139, Annual Report of the Trenton Water Works to the Board of Public Utilities for the Year Ended June 30, 2007; p. 44.

⁵ RCR-E-139, Annual Report of the Trenton Water Works to the Board of Public Utilities for the Year Ended June 30, 2007; pp. 47 and 48; RCR-E-24; RCR-E-25.

⁶ RCR-E-139, Annual Report of the Trenton Water Works to the Board of Public Utilities for the Year Ended June 30, 2007; p. 51.

⁷ RCR-E-139, Annual Report of the Trenton Water Works to the Board of Public Utilities for the Year Ended June 30, 2007; p. 49; SE-3.

⁸ RCR-E-7 (a) and (b).

⁹ RCR-E-6 (a) and (b).

¹⁰ RCR-E-139, Annual Report of the Trenton Water Works to the Board of Public Utilities for the Year Ended June 30, 2007; p. 11.

1 **Q. WHAT PART OF THIS SYSTEM WILL BE SOLD TO NEW JERSEY**
2 **AMERICAN WATER COMPANY IF THE PROPOSAL IS APPROVED?**

3 A. The portion of the assets existing in the Townships of Hamilton, Ewing,
4 Lawrence and Hopewell would be sold. This part of the Trenton Water Works
5 system is referred to as the OWUS and it serves 39,415 customers.¹¹ This is
6 62.7% of the total number of customers served at the end of FY 2007. The
7 distribution system in the OWUS was comprised of 2,454,523 feet or
8 approximately 465 miles of water mains ranging in size from 4 inch diameter to
9 24 inch diameter.¹² This exceeds the amount of pipe detailed in MWH's "City of
10 Trenton, Valuation of Outside Water System Assets" report dated, February
11 2007 included in Exhibit JP-13 by 10,048 feet.¹³ All of the finished water
12 storage reservoirs, except for the Pennington Reservoir, are part of the OWUS.¹⁴
13 Two booster pumping stations, the Klockner Booster Station and the Ewing
14 Booster Station are also located in the OWUS.

15

16 **Q. WHAT REGULATORY APPROVALS AND ORDERS DOES THE**
17 **AGREEMENT REQUIRE BEFORE THE PROPOSED CLOSING?**

18 A. The Agreement identifies four specific Orders that must be obtained from the
19 Board:

20 a. A "Final Approval Order" authorizing the asset sale;

¹¹ RCR-E-139, Annual Report of the Trenton Water Works to the Board of Public Utilities for the Year Ended June 30, 2007; p. 44.

¹² RCR-E-139, Annual Report of the Trenton Water Works to the Board of Public Utilities for the Year Ended June 30, 2007; p. 51.

¹³ JP-13; "City of Trenton, Valuation of Outside Water System Assets"; MWH; p. B-4.

¹⁴ JP-13; "City of Trenton, Valuation of Outside Water System Assets"; MWH; p. B-7.

1 b. A “Final PWAC Order” authorizing New Jersey American Water
2 Company to pass on the full costs incurred under the Water Supply
3 Agreement to its customers through its Purchased Water
4 Adjustment Clause;

5 c. A “Final Rate Order” authorizing New Jersey American Water
6 Company to include in rate base the purchase price and capitalized
7 transaction costs; and

8 d. A “Final Wheeling Rate Order” authorizing New Jersey American
9 Water Company to implement a rate imposed upon the
10 transportation of water moved through the OWUS to bulk
11 customers of the City of Trenton or from water suppliers to the
12 system that will be retained by the City of Trenton.¹⁵

13 The Agreement also contemplates obtaining unspecified operating permits
14 from the New Jersey Department of Environmental Protection to allow New
15 Jersey American to operate the OWUS including approvals needed to implement
16 the Water Supply Agreement.¹⁶ The Agreement also pledges mutual cooperation
17 in transferring permits issued by other unspecified Governmental Authorities
18 needed to allow New Jersey American Water Company to operate the OWUS.¹⁷

19
20 **Q. DOES THE AGREEMENT REQUIRE NEW JERSEY AMERICAN**
21 **WATER COMPANY TO ASSUME THE CITY’S OBLIGATION TO**
22 **CONSTRUCT EMERGENCY INTERCONNECTIONS?**

¹⁵ JP-12, pp. 4 though 5.

¹⁶ JP-12, p. 26, Paragraph 5(g).

¹⁷ JP-12, p. 24, Paragraph 5(c).

1 A. Yes. The City is obligated under a December 21, 2004 agreement between the
2 City and Elizabethtown Water Company to expand a booster station and
3 construct distribution improvements in the OWUS to expand an emergency
4 interconnection system. New Jersey American Water Company has agreed
5 through the Agreement of Sale to assume financial responsibility for this work.¹⁸
6 The additional work yet to be completed has not been scheduled and it has an
7 estimated cost of \$6,000,000.¹⁹

8

9 **Q. DO THE JOINT PETITIONERS PLAN TO PHYSICALLY DIVIDE THE**
10 **IWUS FROM THE OWUS AND ESTABLISH A SERIES OF METERING**
11 **POINTS BETWEEN THESE TWO PORTIONS OF THE EXISTING**
12 **WATER SYSTEM?**

13 A. Yes. This is referred to as the “System Separation Work” in the Agreement of
14 Sale. New Jersey American Water Company has agreed to construct at its cost
15 the master metering systems, “closure improvements” designed to physically
16 divide the system at points that will no longer be used to transfer water between
17 the IWUS and OWUS, and “all other improvements located in the Outside Water
18 Utility System.”²⁰

19

20 **Q. WHAT IS THE EXTENT OF THE WORK REQUIRED TO DIVIDE THE**
21 **TRENTON WATER WORKS DISTRIBUTION SYSTEM INTO THE**
22 **IWUS AND OWUS?**

¹⁸ JP-12, p. 12, Paragraph 2(c).

¹⁹ SW-35.

²⁰ JP-12, Exhibit J, Section 2.

1 A. The actual System Separation Plan is yet to be submitted by New Jersey
2 American Water Company and approved by the City of Trenton. However, in
3 Exhibit JP-13, the Joint Petitioners provided two engineering evaluations of the
4 work needed to divide the system into the IWUS and the OWUS. The initial
5 report, prepared by Killam Associates in September 2000 developed a model of
6 the water distribution system as it existed at the time and analyzed various means
7 of separating the IWUS and OWUS as well as dividing the OWUS further along
8 municipal boundaries. A second report was prepared by MWH in December
9 2006 and was titled “City of Trenton, System Separation Validation Report.”
10 This evaluation updated and validated the distribution model created in the
11 previous study and refined the recommendations concerning the division of the
12 system into the IWUS and OWUS. In summary, the scope of work to divide the
13 system included:

- 14 a. Transmission main improvements to address anticipated fire flow
15 deficiencies;
- 16 b. Metering stations, valves and piping to physically divide the system;
- 17 c. Improvements needed to address pressure deficiencies and connectivity
18 issues; and
- 19 d. The modification of the Central Pump Station to provide additional
20 distribution system storage within the City.

21 The estimated cost for this work ranged between \$13,670,000 and \$21,597,000.²¹
22

²¹ Exhibit JP-13, “City of Trenton, System Separation Validation Report”; MWH; December 2006; p. 1-2.

1 **Q. WHAT PORTION OF THE COST OF DIVIDING THE SYSTEM WILL**
2 **BE BORNE BY NEW JERSEY AMERICAN WATER COMPANY?**

3 A. The Company's most current estimate of the cost of physically separating the
4 system and providing metering stations is \$7,800,000. Additional improvements
5 within the OWUS to provide proper fire flows and pressures amount to
6 \$6,000,000.²²

7
8 **Q. DOES THE AGREEMENT OF SALE ADDRESS ANY OTHER AREAS**
9 **OF OPERATION OF THE TRENTON WATER WORKS?**

10 A. Yes. New Jersey American Water Company agreed to provide four persons to
11 work in the City's water treatment plant,²³ which will remain part of the IWUS.
12 The basic services to be performed include the day-to-day operation of the water
13 treatment plant under the direction of the City's Plant Superintendent and a
14 Company supervisor who will be available for a minimum of five hours per
15 week.²⁴

16
17 **Q. WHO IS RESPONSIBLE FOR THE COST OF THESE OPERATORS?**

18 A. The City is obligated to pay New Jersey American Water Company a basic
19 monthly fee intended to compensate the Company for all direct costs and
20 overheads.²⁵

21

²² RCR-E-114.

²³ JP-12, p. 41, Section 14(b).

²⁴ JP-12, Exhibit L, p. 13, Paragraph 4.1.

²⁵ JP-12, Exhibit L, p. 15, Paragraph 6.1; SW-9 and SW-10.

1 *B. Analysis of the Agreement of Sale*

2 **Q. DO YOU BELIEVE A “FINAL APPROVAL ORDER” SHOULD BE**
3 **GRANTED IN THIS PROCEEDING?**

4 A. No. I believe the proposed transaction will have immediate adverse effects on
5 the Trenton Water Works system and its customers and it will also adversely
6 impact existing and prospective customers of New Jersey American Water
7 Company.

8
9 **Q. WHAT IS THE IMPACT OF THE AGREEMENT OF SALE ON THE**
10 **TRENTON WATER WORKS SYSTEM?**

11 A. If the proposed sale is approved, the implementation of the Agreement of Sale
12 will divide a single existing water system into two separate entities. A number of
13 improvements will be required to compensate for this and these are referred to in
14 the Agreement of Sale and in the City’s bid documents as “System Separation
15 Work.” As I have already noted, the estimated cost of this work ranges between
16 \$13,670,000 and \$21,597,000 and New Jersey American Water Company is
17 likely to bear \$13,800,000 of the anticipated expense.

18
19 **Q. DO THE SYSTEM SEPARATION COSTS REPRESENT COSTS FOR**
20 **WORK THAT WOULD BE REQUIRED ABSENT THE PROPOSAL TO**
21 **SELL THE OWUS?**

22 A. No. While the 2000 Killam Associates study and the 2006 MWH study identified
23 some deficiencies that exist in the system as it is currently configured, it is clear

1 that most of the recommended improvements identified in these reports would be
2 unnecessary if the Trenton Water Works system is left intact.²⁶ As a result, the
3 act of dividing the system into two separate systems results in a prospective
4 capital expense that could exceed \$20,000,000. The actual cost, if it is incurred,
5 would burden all of the Company's customers, including the OWUS customers
6 with higher rates if rate base recognition is granted for these expenses.

7

8 **Q. HAS NEW JERSEY AMERICAN REQUESTED RATE BASE**
9 **TREATMENT FOR ITS SHARE OF THE SYSTEM SEPARATION**
10 **COSTS IN THIS PROCEEDING OR IN ITS ONGOING BASE RATE**
11 **PROCEEDING?**

12 A. No, it has not. These costs have not yet been incurred, so there has been no
13 request to include these items in rates. If the sale of the OWUS is approved, the
14 system separation costs will represent a future capital expense for which we
15 should anticipate the Company asking for rate recognition.

16

17 **Q. HAVE THE JOINT PETITIONERS STATED A POSITION ON THE**
18 **LIKELY IMPACT ON RATES FOR OWUS CUSTOMERS IF THE**
19 **PROPOSED TRANSACTION IS NOT CONSUMMATED?**

²⁶ RCR-E-68.

1 A. Yes. Joint Petitioner Witnesses Jane Feigenbaum and Henry J. Ludwigsen have
2 both testified that approximately a 40% rate increase would be required if the
3 City retains ownership of the OWUS.²⁷

4

5 **Q. DO YOU BELIEVE SUCH A RATE INCREASE WOULD BE**
6 **NECESSARY?**

7 A. No. The Joint Petitioners have asked us to accept the premise that a 40% rate
8 increase would be necessary without vetting the elements of that rate increase as
9 would be done in a typical rate setting process. The 40% rate increase is the
10 result, in part, of the increases in transfers of funds from the City's Water Fund
11 to the Current Fund. As one can see in Schedule HJL-1, from Exhibit JP-9,
12 transfers to the current fund were approximately \$1.2 million per year for the
13 years 2004 through 2006, inclusive. The amount transferred in 2007 increased to
14 \$6,241,769 and the transfers are budgeted at \$3,000,000 per year for 2008
15 through 2011.²⁸ The Joint Petitioners have offered no explanation for the amount
16 transferred in 2007 or the reason for the higher budget in 2008 through 2011.²⁹
17 If the transfers from the Water Fund to the Current Fund were limited to historic
18 levels, a 40% rate increase would not be required.

19

20 **Q. ARE YOU AWARE OF ANY LIMITATIONS REGARDING THE**
21 **AMOUNT OF FUNDS THAT MAY BE TRANSFERRED FROM THE**
22 **WATER FUND TO THE CURRENT FUND?**

²⁷ Feigenbaum, JP-1, p. 6, lines 8-9; Ludwigsen, JP-9, p. 5, lines 19-23.

²⁸ Ludwigsen, JP-9, Schedule HJL-1.

²⁹ RCR-E-131.

1 A. Yes. To the extent that the water utility has a surplus, funds may be transferred
2 from the water utility to the general fund in an amount not to exceed 5% of the
3 operating cost of the system.³⁰
4

5 **Q. HAVE YOU ESTIMATED WHAT RATE INCREASE WOULD BE**
6 **NEEDED IF THIS LIMITATION WERE APPLIED TO THE RATE**
7 **INCREASE CALCULATION PRESENTED IN EXHIBIT JP-9,**
8 **SCHEDULE HJL-1?**

9 A. Yes. With all other things remaining the same, the 40.21% rate increase shown
10 on Exhibit JP-9, Schedule HJL-1 would be reduced to a 25.61% increase. My
11 calculation of this lower increase is presented in Schedule HJW-2.
12

13 **Q. ARE THERE ANY OTHER ISSUES THAT WOULD IMPACT THE**
14 **PROJECTED RATE INCREASE CALCULATED IN EXHIBIT JP-9,**
15 **SCHEDULE HJL-1?**

16 A. Schedule HJL-1 does not account for customer growth in the OWUS.³¹ While
17 modest,³² the anticipated growth rate within the OWUS service territory would
18 serve to put downward pressure on rates as additional revenues are derived from
19 new customers. The City currently requires developers in the OWUS to bear the

³⁰ N.J.S.A.40A:4-35.1. Transfer of surplus revenue

³¹ JP-9, Schedule HJL-1 and RCR-E-134.

³² SOE-7 Confidential; JP-2, p. 3, lines 8-9; SE-9; RCR-E-13 and Exhibit P-2, Schedule 5, page 3 of 9, and Schedule 6, page 2 of 2 found in BPU Docket No. WR08010020.

1 cost of main extensions,³³ so any customer additions that did occur would
2 generate new revenues without increasing rate base.

3 Also, HJL-1 reflects significantly fewer revenue dollars from fire service
4 than those actually collected as recently as 2007. HJL-1 shows combined Fire
5 Hydrant and Miscellaneous revenues for 2007 of \$1,440,566 while the Joint
6 Petitioners' response to RCR-E-37 shows combined Public Fire Revenues and
7 Private Fire Revenues for only the OWUS to amount to \$2,761,707. This latter
8 amount is reasonably consistent with the amount shown for base year fire service
9 revenues for the OWUS (\$2,527,260) in Exhibit P-2 in New Jersey American
10 Water Company's base rate filing.³⁴ If an additional \$1.1 million in fire service
11 revenues will be generated under continued City ownership, the projected rate
12 increase could be reduced even further from 25.61% to 24.39%. To the extent
13 that there are additional fire protection revenues generated from within the
14 City,³⁵ which are not included in HJL-1, the projected rate increase would be
15 even lower.

16 Furthermore, the costs anticipated in Exhibit JP-9, Schedule HJL-1 have
17 not been subjected to the typical level of scrutiny given in a rate proceeding
18 before this Board. Operating expenses have simply been factored up at a rate of
19 6% per year.³⁶ If, for example a factor of 4% per year were used, the estimated
20 rate increase shown in Schedule HJW-2 would decline from 25.61% to 22.18%.
21 If we also reflected the possible additional fire protection revenues, the projected

³³ RCR-E-39; RCR-E-128; and RCR-E-129.

³⁴ Exhibit P-2, Schedule 5, page 3 of 9; BPU Docket No. WR08010020.

³⁵ RCR-E-136.

³⁶ Cogen-7 Attachment.

1 rate increase would be reduced to 20.95% from the estimated 40.21% described
2 in the filing.

3

4 **Q. HAS NEW JERSEY AMERICAN WATER COMPANY PROPOSED A**
5 **RATE TO BE CHARGED IN THE OWUS AFTER THE COMPLETION**
6 **OF THE PROPOSED SALE?**

7 A. Yes. In their base rate proceeding, the Company has proposed a tariff that would
8 be applied to the OWUS service territory. Proposed Rate Schedule A-11 defines
9 the basic rate that would be charged for service. In addition, the Company would
10 also charge the Purchased Water Adjustment Clause (PWAC) charge contained
11 in existing Rate Schedule O-1.

12

13 **Q. ARE THE PROPOSED RATE SCHEDULE A-11 RATES DICTATED BY**
14 **A COST OF SERVICE CALCULATION?**

15 A. No, the consumption charge was set at a rate that would result in a 36% increase
16 for the typical GMS customer.³⁷ The proposed fixed service charges are simply
17 those proposed by the Company in its SA-1 and SA-2 service areas.³⁸

18

19 **Q. HOW DO THE PROPOSED CHARGES COMPARE TO CHARGES NOW**
20 **LEVIED BY THE CITY OF TRENTON IN THE OWUS?**

21 A. An existing OWUS customer with a 5/8-inch meter using 20,944 gallons per
22 quarter would be billed \$75.34 by the City of Trenton at current rates. This same

³⁷ BPU Docket No. WR08010020; RCR-RD-11.

³⁸ BPU Docket No. WR08010020; OIW-7.

1 customer would be charged \$102.40 at the proposed tariff rate.³⁹ This represents
2 a 35.9% increase for the existing OWUS customers. As I have already noted, I
3 believe the rates that the City would need to charge if the proposed sale is not
4 approved would be less than the rate proposed in New Jersey American Water
5 Company's base rate filing. I would also like to point out that the Company has
6 indicated that it intends the A-11 tariff rate to be a stepping stone on the way to
7 implementing the Rate Schedule A-1 rates in the OWUS at some point in the
8 future.⁴⁰ While such a transition to the Rate Schedule A-1 rates would likely
9 occur over multiple rate cases, the Rate Schedule A-1 rate proposed in the
10 Company's current base rate case would produce a quarterly bill of \$161.33 or
11 an increase of 114% over the current City of Trenton rates.

12
13 **Q. HAS THE COMPANY INDICATED THAT THERE WILL BE AN**
14 **IMPROVEMENT IN SERVICE COMMENSURATE WITH AN INITIAL**
15 **RATE INCREASE OF 35.9%?**

16 **A.** No, it has not. In fact, the Company has stated that "the purchase and sale in and
17 of itself will have no impact" on the quality of water provided within the
18 OWUS.⁴¹

19
20 **Q. HOW WILL THE CONSUMMATION OF THE AGREEMENT OF SALE**
21 **IMPACT EXISTING CUSTOMERS OF NEW JERSEY AMERICAN**
22 **WATER COMPANY?**

³⁹ RCR-E-115.

⁴⁰ Simpson, JP-6, p. 14, lines 1-22 and RCR-E-119.

⁴¹ Hopewell-4.

1 A. The sale is contingent upon the Company receiving a Final Rate Order
2 authorizing New Jersey American Water Company to include in rate base the full
3 purchase price of \$100,000,000 plus capitalized transaction costs. The Company
4 has proposed a rate, which if fully adopted would produce \$22,770,374 in annual
5 revenues.⁴² In addition, metered sales of 4,051,963 thousand gallons per year⁴³
6 in the OWUS will generate \$1,401,169 per year in PWAC revenues. These
7 revenues would cover operating expenses of the OWUS amounting to
8 \$15,316,376,⁴⁴ leaving a net amount of \$8,855,167. The annual cost of
9 purchased water anticipated under the Water Supply Agreement is
10 \$11,809,000.⁴⁵ This results in a net loss of \$2,953,833 even before the rate of
11 return on the investment (e.g. the \$100,000,000 purchase price) is considered. At
12 the weighted cost of capital of 8.00% approved in the Company's last base rate
13 proceeding,⁴⁶ the Company would need to recover an additional expense of
14 \$8,000,000 per year to cover its investment. This is a shortfall of \$10,953,833
15 per year. In other words, the purchase of the OWUS under the terms established
16 under the Agreement of Sale cannot stand on its own without burdening existing
17 ratepayers with a significant revenue shortfall, either through the PWAC or in
18 base rates.

19

⁴² BPU Docket No. WR08010020, Exhibit P-2, Schedule 5, page 3 of 9.

⁴³ BPU Docket No. WR08010020, SIR-14, Workpaper 5, page 10 of 16.

⁴⁴ JP-17, Tab B and RCR-E-36.

⁴⁵ JP-14, page 8, Paragraph 2(b).

⁴⁶ BPU Docket No. WR06030257, Decision and Order, p. 11, paragraph d.

1 **Q. HOW WILL THE PROPOSED TRANSACTION IMPACT EXISTING**
2 **NEW JERSEY AMERICAN WATER COMPANY RATEPAYERS IN THE**
3 **FUTURE?**

4 A. As I noted earlier, the proposed transaction will require New Jersey American
5 Water Company to spend a significant sum of money working to separate the
6 OWUS from the IWUS. The Company's own estimate for these costs is
7 \$13,800,000. In addition, the Company is taking on an obligation to complete
8 the emergency interconnection project at an estimated cost of \$6,000,000. The
9 total of these two efforts, \$19,800,000, represents a future claim for additional
10 rate relief that will, if approved, will be borne by existing ratepayers.

11

12 **V. ASSESSMENT OF THE WATER SUPPLY AGREEMENT**

13 *A. Summary of the Water Supply Agreement*

14 **Q. DID THE JOINT PETITIONERS INCLUDE A WATER SUPPLY**
15 **AGREEMENT IN THEIR FILING?**

16 A. Yes. Exhibit JP-14 is a copy of the "Water Supply Agreement between City of
17 Trenton and New Jersey American Water Company, Inc." dated December 21,
18 2007.

19

20 **Q. PLEASE DESCRIBE THE WATER SUPPLY AGREEMENT.**

21 A. The water supply agreement is a wholesale water supply contract that initially
22 obligates New Jersey American Water Company to pay for 5.731 billion gallons

1 of water per year at a rate starting at \$2.060 per thousand gallons. Because there
2 is no means of effectively metering the actual volume of water passing from the
3 Trenton IWUS to the OWUS, New Jersey American is obligated to pay a fixed
4 charge of \$11,809,000 per year in equal monthly installments.⁴⁷ The rate
5 charged for the estimated volume of water delivered to the OWUS will be
6 adjusted annually based on changes in the Consumer Price Index (CPI).⁴⁸ Billing
7 on the basis of the estimated volume and the adjusted unit rate will continue until
8 the IWUS and the OWUS are separated and properly metered.⁴⁹ Afterwards,
9 billing will be based on the CPI adjusted rates and the volume of water metered
10 at the points of delivery.⁵⁰ The term of the agreement is for twenty years from
11 the first day of the month following closing on the proposed asset sale.

12
13 **Q. IN ADDITION TO THE COST OF WATER, DOES THE AGREEMENT**
14 **OBLIGATE NEW JERSEY AMERICAN WATER COMPANY TO PAY**
15 **ANY OTHER CHARGES TO THE CITY OF TRENTON?**

16 **A.** Yes, the Company will be obligated to pay a Capital Improvement Surcharge in
17 addition to the basic cost of water supplied after the system has been separated
18 and Master Meters have been installed at the Points of Delivery.⁵¹

19
20 **Q. WHAT IS THE CAPITAL IMPROVEMENT SURCHARGE?**

⁴⁷ JP-14, p. 8, Paragraph 2(b).

⁴⁸ JP-14, p. 9, first paragraph.

⁴⁹ JP-14, p. 9, second paragraph.

⁵⁰ JP-14, p. 12, Section 5 (b), first paragraph.

⁵¹ JP-14, p. 9, second paragraph.

1 A. The Capital Improvement Surcharge is an additional charge that will be added to
2 the base rate to recover a share of the debt service on capital improvement
3 projects undertaken within the IWUS that are needed to provide service in the
4 OWUS.

5
6 **Q. DOES THE WATER SUPPLY AGREEMENT OBLIGATE NEW JERSEY
7 AMERICAN WATER COMPANY TO PERFORM ANY OTHER
8 SERVICES OR TASKS?**

9 A. Yes. The Water Supply Agreement obligates New Jersey American Water
10 Company to transport water through the OWUS to supply water to specified bulk
11 customers of the City and to receive water within the IWUS from suppliers.⁵² In
12 addition, the Water Supply Agreement obligates New Jersey American Water
13 Company to install and maintain master meters at the points of delivery in
14 accordance with the System Separation Plan.⁵³

15 ***B. Analysis of the Water Supply Agreement***

16 **Q. DO YOU BELIEVE THAT THE WATER SUPPLY AGREEMENT IS AN
17 APPROPRIATE INSTRUMENT TO SECURE AN ADEQUATE SUPPLY
18 OF WATER FOR THE OWUS AT A FAIR PRICE?**

19 A. No, I do not. The initial price of \$2.060 per thousand gallons set by the Water
20 Supply Agreement is based on a fictitious rate of return of 5.5% on capital for

⁵² JP-14, p. 9, Section 2(c).

⁵³ JP-14, p. 16, Section 8.

1 the Trenton Water Works.⁵⁴ The rates actually charged by Trenton Water Works
2 are designed to recover debt service as opposed to a rate of return.⁵⁵ The
3 proposed sale of the OWUS would produce a significant amount of money which
4 must be applied to the reduction of debt service on the existing water system.⁵⁶
5 If this debt is extinguished, the cost of providing service to all customers of the
6 Trenton Water Works would be less. If the rate of return estimate described in
7 Mr. Jerry Notte's testimony⁵⁷ and detailed in the response to RCR-E-89 were
8 eliminated from the calculation, the initial wholesale rate would drop to \$1.4159
9 per thousand gallons.

10
11 **Q. IF A LOWER WHOLESALE RATE WERE ESTABLISHED, WOULD**
12 **ANY OTHER CUSTOMERS OF TRENTON WATER WORKS**
13 **BENEFIT?**

14 A. Possibly. Lawrenceville Water Company and Aqua New Jersey are charged a
15 wholesale rate⁵⁸ equivalent to the City's retail rate set by Ordinance 06-79. This
16 Ordinance was adopted to equalize rates within and outside the City to exempt
17 the City's rates from this Board's jurisdiction.⁵⁹ Establishing a lower rate that
18 reflects the impact of the proposed sale could benefit these wholesale customers
19 if the individual wholesale agreements with the City allow for such rate changes.
20 It is also worth noting that the Water Supply Agreement links the base rate

⁵⁴ RCR-E-89, page A-3.

⁵⁵ Cogen-7.

⁵⁶ JP-1, p. 4, lines 1-5; RCR-E-5.

⁵⁷ JP-3, pp. 12-14; and RCR-E-89.

⁵⁸ RCR-E-15.

⁵⁹ JP-9, Schedule HJL-2, p.1.

1 charged to New Jersey American Water Company to the wholesale rate that may
2 be charged to other wholesale customers by offering New Jersey American
3 Water Company a more favorable wholesale rate agreed to by the City.⁶⁰
4 However, the Water Supply Agreement also notes that a more favorable rate may
5 not be available to New Jersey American Water Company if that rate is imposed
6 on Trenton by a court or regulatory agency.⁶¹

7
8 **Q. DO YOU SEE ANY OTHER ISSUES WITH REGARD TO THE RATES**
9 **PROPOSED IN THE WATER SUPPLY AGREEMENT?**

10 **A.** Yes. The Water Supply Agreement contemplates annual adjustments to the prior
11 year rate based on the change in Consumer Price Index (CPI). As noted in the
12 response to RCR-E-20, CPI is a number that represents a “basket” of consumer
13 goods. More specifically, the U.S. Department of Labor, Bureau of Labor
14 Statistics, the agency that generates the CPI, defines the CPI as follows:⁶²

15 “The CPI represents all goods and services purchased for
16 consumption by the reference population (U or W) BLS has
17 classified all expenditure items into more than 200 categories,
18 arranged into eight major groups. Major groups and examples of
19 categories in each are as follows:

20 **FOOD AND BEVERAGES** (breakfast cereal, milk, coffee,
21 chicken, wine, service meals and snacks)

22 **HOUSING** (rent of primary residence, owners' equivalent rent,
23 fuel oil, bedroom furniture)

24 **APPAREL** (men's shirts and sweaters, women's dresses,
25 jewelry)

26 **TRANSPORTATION** (new vehicles, airline fares, gasoline,
27 motor vehicle insurance)

⁶⁰ JP-14, Water Supply Agreement Exhibit C, Paragraph 1.

⁶¹ Ibid.

⁶² http://www.bls.gov/cpi/cpifaq.htm#Question_7

1 **MEDICAL CARE** (prescription drugs and medical supplies,
2 physicians' services, eyeglasses and eye care, hospital services)
3 **RECREATION** (televisions, pets and pet products, sports
4 equipment, admissions);
5 **EDUCATION AND COMMUNICATION** (college tuition,
6 postage, telephone services, computer software and
7 accessories);
8 **OTHER GOODS AND SERVICES** (tobacco and smoking
9 products, haircuts and other personal services, funeral
10 expenses).

11 Also included within these major groups are various government-
12 charged user fees, such as water and sewerage charges, auto
13 registration fees, and vehicle tolls. In addition, the CPI includes
14 taxes (such as sales and excise taxes) that are directly
15 associated with the prices of specific goods and services.
16 However, the CPI excludes taxes (such as income and Social
17 Security taxes) not directly associated with the purchase of
18 consumer goods and services.

19 The CPI does not include investment items, such as stocks,
20 bonds, real estate, and life insurance. (These items relate to
21 savings and not to day-to-day consumption expenses.)"

22 Clearly, there are many things included in the CPI that have nothing to do with
23 the true cost of producing a gallon of water and delivering it to the boundary of
24 the proposed OWUS. The initial rate contemplated in the Water Supply
25 Agreement will not reflect that actual cost of service if the proposed transaction
26 is completed and the CPI adjustment of this rate will do nothing to reconcile
27 future actual costs with the rate to be paid by New Jersey American Water
28 Company. If the initial rate is too high and the CPI adjustments even modestly
29 keep pace with the true cost of producing water in Trenton, the Water Supply
30 Agreement would work to the City's advantage by causing New Jersey American
31 Water Company to effectively subsidize the cost of water service within the City.
32 However, if the cost for operational items (e.g. power, chemicals, maintenance,
33 labor, diversion fees, etc.) outpaces the CPI, Trenton residents could find
34 themselves subsidizing the cost of service to New Jersey American Water

1 Company. As a result, I do not believe the Water Supply Agreement adequately
2 protects the interests of the customers served by New Jersey American Water
3 Company or those served by the City of Trenton.

4

5 **Q. HOW WILL THE CAPITAL IMPROVEMENT SURCHARGE IMPACT**
6 **THE RATE PAID BY NEW JERSEY AMERICAN WATER COMPANY**
7 **TO THE CITY OF TRENTON?**

8 A. The Joint Petitioners refused to provide estimates of the various factors that will
9 be used to calculate the Capital Improvement Surcharge for likely qualified
10 projects.⁶³ However, Exhibit C to the Water Supply Agreement does provide a
11 sample calculation.

12

13 **Q. WILL THE CAPITAL IMPROVEMENT SURCHARGE BE APPLIED TO**
14 **THE WATER TREATMENT PLANT IMPROVEMENTS?**

15 A. Yes. The Water Supply Agreement obligated the parties to calculate the
16 Applicability Share Factor (ASF) within twenty days of executing the Water
17 Supply Agreement on December 21, 2007.⁶⁴ The Demand Share Factor (DSF)
18 will not be calculated until the City begins delivering water to New Jersey
19 American Water Company.⁶⁵

20

21 **Q. WHAT IS THE DEBT SERVICE ASSOCIATED WITH THE WATER**
22 **TREATMENT PLANT IMPROVEMENTS?**

⁶³ RCR-E-2; RCR-E-35; SW-39

⁶⁴ JP-14, Water Supply Agreement Exhibit C, p. 38, Paragraph 3(C).

⁶⁵ Ibid.

1 A. The debt service payments for the four issues detailed in response to RCR-E-5
2 amount to roughly \$3,625,000 per year.

3

4 **Q. IF THE SHARING FACTOR CALCULATED IN THE EXAMPLE IS**
5 **DETERMINED TO BE APPLICABLE TO THIS PROJECT, HOW MUCH**
6 **OF THE DEBT SERVICE WOULD BE ASSIGNED TO NEW JERSEY**
7 **AMERICAN WATER COMPANY?**

8 A. The sharing factor calculated in the example is 30%. If this were applied to the
9 debt service of \$3,625,000, New Jersey American Water Company's share would
10 amount to \$1,087,500. Using the initial annual purchase amount of 5,731,000
11 thousand gallons as the Annual Purchase Requirement and dividing the shared
12 debt service amount by this APR yields a unit surcharge rate of \$0.1898 per
13 thousand gallons. This amount would be added to the base rate, which has
14 initially been set at \$2.060 per thousand gallons. The total rate, including this
15 Capital Improvement Surcharge would be \$2.2498 per thousand gallons. The
16 resulting annual purchased water obligation would amount to roughly
17 \$12,893,000 using this example. It is also worthy of note that the City believes
18 the debt service to be paid may be higher than the amount calculated in this
19 example. In Exhibit JP-1, the City indicated that they believed the annual debt
20 service to be paid by New Jersey American Water Company would be in the
21 range of \$2,000,000 to \$3,400,000 per year,⁶⁶ so the actual annual payments for
22 purchased water could be much higher than the amount calculated here.

⁶⁶ Feigenbaum, JP-1, p. 5, lines 16-17.

1

2 **Q. HOW WILL THE CAPITAL IMPROVEMENT SURCHARGE IMPACT**
3 **CUSTOMERS OF THE OWUS AND NEW JERSEY AMERICAN**
4 **WATER COMPANY?**

5 A. If the Capital Improvement Surcharge is passed through the PWAC, customers in
6 the OWUS and elsewhere in New Jersey American Water Company's service
7 area will bear this cost. As I have noted earlier, the proposed rates to be charged
8 by New Jersey American Water Company coupled with the current PWAC will
9 not support the cost of this acquisition and its operations. As a result, customers
10 outside of the OWUS will bear the burden of the costs not recovered from the
11 OWUS.

12

13 **VI. ADDITIONAL ISSUES**

14 *A. Wheeling Rate*

15 **Q. HAS NEW JERSEY AMERICAN WATER COMPANY PROPOSED TO**
16 **IMPLEMENT A WHEELING RATE?**

17 A. Yes. In fact, the approval of a "Final Wheeling Rate Order" is one of several
18 conditions that must be satisfied prior to closing.

19

20 **Q. WHAT IS A WHEELING RATE?**

1 A. A wheeling rate is a rate to be charged to recover the costs incurred to transport
2 water supplied by a producer to a receiver that are both distinct from the entity
3 transporting the water.

4

5 **Q. IN THIS CASE, WHO ARE THE PARTIES THAT WOULD BE**
6 **ASSOCIATED WITH THE WHEELING OF WATER?**

7 A. In this case, the City of Trenton would be the producer, New Jersey American
8 Water Company would be the transporter if the proposed transaction is concluded,
9 and the current bulk customers of the City of Trenton (e.g. Lawrenceville Water
10 Company and Aqua New Jersey⁶⁷) would be the receivers.

11

12 **Q. DOES THE CITY OF TRENTON CHARGE A WHEELING RATE AT**
13 **THIS POINT IN TIME?**

14 A. No.⁶⁸

15

16 **Q. WHAT WHEELING RATE HAS NEW JERSEY AMERICAN WATER**
17 **COMPANY PROPOSED?**

18 A. The Company's base rate filing (BPU Docket No. WR08010020) contains a
19 proposed Rate Schedule J, which would be applicable to wheeling service. This
20 proposed rate is \$0.9635 per thousand gallons for Non-Exempt customers and
21 \$0.8310 per thousand gallons for Exempt customers.

22

⁶⁷ RCR-E-22 and RCR-E-255 in BPU Docket No. WR08010020.

⁶⁸ RCR-E-17.

1 **Q. HOW WAS THIS RATE DEVELOPED?**

2 A. The calculation of the rate is shown in the responses to SW-25 and SW-49.

3

4 **Q. WAS THIS RATE DEVELOPED TO BE APPLICABLE ONLY TO THE**
5 **TRANSPORTATION OF WATER ACROSS THE OWUS?**

6 A. No. The cost components used in the calculation reflect costs experienced by New
7 Jersey American Water Company in its service areas beyond the OWUS. As a
8 result, this rate is based on costs incurred in delivering water to various groups of
9 customers, which include General Metered Service (“GMS”), Optional Industrial
10 Wholesale Water Company (“OIW”), Manasquan and Sale-for-Resale, who will
11 not be burdened with a wheeling rate.

12

13 **Q. WHAT ENTITIES DOES NEW JERSEY AMERICAN WATER**
14 **COMPANY BELIEVE WILL QUALIFY FOR THE PROPOSED**
15 **WHEELING RATE?**

16 A. According to the discovery responses provided in the Company’s base rate case,
17 the Company believes that Aqua New Jersey will be the only qualified customer
18 under the proposed tariff.⁶⁹ Aqua New Jersey would be an Exempt customer
19 under the proposed Rate Schedule J.

20

⁶⁹ BPU Docket No. WR08010020, RCR-E-22.

1 **Q. SO IS IT CORRECT THAT THE WHEELING RATE CHARGED TO**
2 **AQUA WILL BE BURDENED BY COSTS INCURRED BEYOND THE**
3 **OWUS BY NEW JERSEY AMERICAN WATER COMPANY?**

4 A. Yes, and I believe it would be more appropriate to develop a wheeling rate that
5 addresses the cost incurred in actually transporting water for the one and only
6 customer that will benefit from this service.

7

8 **Q. IF THE CITY IS BEING FREED FROM THE COST AND OBLIGATION**
9 **OF OPERATING THE OWUS AS A RESULT OF THIS TRANSACTION,**
10 **SHOULD THE WHOLESALE RATE CHARGED TO AQUA NEW**
11 **JERSEY AND LAWRENCEVILLE WATER COMPANY BE REDUCED?**

12 A. If we assume that the current rate charged by Trenton properly recovers the cost of
13 transmission expense from the Water Filtration Plant to the Points of Delivery for
14 these customers, then it would be reasonable to conclude that the sale of the
15 OWUS to New Jersey American Water Company would result in a lower
16 wholesale rate. After all, the proposed wheeling rate is intended to recover the
17 cost of transporting water through the OWUS and it would be unfair to burden the
18 wholesale customers with a wholesale rate and a wheeling rate that both recover
19 this very same cost.

20

21

22

1 **Q. DO YOU BELIEVE THAT THE BOARD SHOULD APPROVE A FINAL**
2 **WHEELING RATE ORDER CONSISTENT WITH THE PROPOSAL**
3 **MADE IN THIS PROCEEDING AND IN NEW JERSEY AMERICAN**
4 **WATER COMPANY'S BASE RATE CASE?**

5 A. No, I do not.

6

7 *B. Operating Center Costs*

8 **Q. HAS THE COMPANY PROPOSED TO DEVELOP A NEW OPERATING**
9 **CENTER IN THE OWUS IF THE PROPOSED TRANSACTION CLOSES?**

10 A. Yes. The Company has proposed to develop a new operating center within the
11 OWUS to service the OWUS customers if the proposed transaction closes.

12

13 **Q. HAS THE COMPANY DEVELOPED AN ESTIMATE OF THE STAFFING**
14 **REQUIREMENTS FOR THE PROPOSED OPERATING CENTER?**

15 A. Yes, the Testimony of Mr. W. Andrew Clarkson provides a summary of the
16 staffing levels proposed by the Company.⁷⁰ The Company indicates that 30 full
17 time employees will be dedicated to providing field services to the OWUS.

18

19 **Q. WHAT IS YOUR OPINION ABOUT THIS PROPOSED STAFFING**
20 **LEVEL?**

21 A. If the OWUS is to be operated as a stand-alone enterprise, the proposed staffing
22 level is appropriate given the size and nature of the OWUS. The proposal

⁷⁰ JP-5, Clarkson, p. 6, line 7 through p. 7, line 21.

1 presumes that the customers who are now billed on a quarterly basis will be billed
2 on a monthly basis under New Jersey American Water Company ownership. If
3 quarterly billing were maintained, the Company believes that meters could be read
4 with a staff of two as opposed to a staff of five.⁷¹ I also concur with this lower
5 estimate.

6

7 **Q. IF THE OWUS IS NOT SOLD TO NEW JERSEY AMERICAN WATER**
8 **COMPANY, HOW WILL THE SYSTEM BE STAFFED?**

9 A. The responses to RCR-E-43 and RCR-45 show the current staffing levels of the
10 Trenton Water Works and indicated that the existing vacancies will be filled if the
11 system is not sold. There are 30 vacant positions noted in the response to RCR-E-
12 43. This suggests that a comparable level of jobs will be filled regardless of who
13 owns the system; however, such a direct comparison is not appropriate.

14

15 **Q. PLEASE SUMMARIZE THE VACANCIES THAT NOW EXIST WITHIN**
16 **THE TRENTON WATER WORKS.**

17 A. Based on the response to RCR-E-43, there are 2 clerical vacancies in the General
18 Administration group, there are 15 vacancies in the Pumping, Treatment,
19 Maintenance and Water Quality group and most of these are plant operators, and
20 there are 13 vacancies in the Engineering/Construction/Maintenance and Meter
21 Office group. In this last category, the vacancies are in supervisory positions as
22 well as equipment operators and water system or meter repair positions.

⁷¹ RCR-E-57.

1

2 **Q. IF THE SYSTEM IS SOLD, HOW WILL THE IWUS STAFFING BE**
3 **EFFECTED?**

4 A. The response to RCR-E-44 indicates that the staffing for the Trenton Water Works
5 will be left essentially as it now stands and that the vacancies will not be filled.
6 However, it seems that some dislocation and change should be anticipated. For
7 example, the City now employs seven meter readers and a supervisor in its Water
8 Billing group. It does not seem logical that all of these employees would be
9 needed if the number of customers is reduced by some 39,000 through the sale of
10 the OWUS. This is a 63% reduction in the number of active services. If the meter
11 reading staff is reduced proportionally, this represents a reduction of 4 positions.

12 The largest group of vacancies exists in the water treatment and water
13 quality functional areas. The City intends to retain these functions and
14 responsibilities along with the Water Treatment Plant. While the Company
15 proposes to supplement the Water Treatment Plant operations staff with four
16 operators,⁷² this additional contract staffing would leave 11 city vacancies in this
17 department. The sale of the OWUS should not impact the staffing requirements at
18 the Water Treatment Plant.

19

20 **Q. DOES THE DIVISION OF THE TRENTON WATER WORKS INTO THE**
21 **IWUS AND OWUS CREATE ANY LABOR INEFFICIENCY?**

⁷² JP-12, Agreement of Sale, Exhibit L, p. 13, Paragraph 4.1.

1 A. The possibility that the City may need to fill some of the water production and
2 water quality positions, even though it could reduce its meter reading staff,
3 suggests that the division of the Trenton Water Works into the IWUS and OWUS
4 creates some overall inefficiency. The response to RCR-E-43 shows a total
5 workforce of 156, including the 30 vacancies. If the number of meter readers is
6 reduced by 4 and 11 of the 15 production/water quality vacancies are filled, the
7 City will have a workforce of 133 employees. New Jersey American Water
8 Company proposes to provide 4 operators for the Water Treatment Plant and fill
9 30 full time positions to staff the OWUS. In aggregate, this means that there will
10 be 167 employees between the two organizations doing the work that would have
11 been done by 156 absent the proposed sale of the OWUS. Given the projected
12 costs for labor (\$2,211,425), group insurance (\$455,909) and pensions (\$187,370)
13 for the OWUS⁷³ each employee represents a potential cost of roughly \$95,000.
14 Eleven additional employees spread over the IWUS and OWUS after the system is
15 divided represent an annual cost of \$1,045,000 that would otherwise not be
16 incurred.

17
18 **Q. FROM WHAT LOCATION ARE THE TRENTON WATER WORKS**
19 **EMPLOYEES WHO SERVICE THE OWUS DISPATCHED?**

20 A. The employees who are responsible for the distribution network are dispatched
21 from 333 Cortland Street in Trenton and the maintenance employees who care for

⁷³ JP-17, Tab B, p. 2.

1 the storage facilities and pump stations are dispatched from the Water Treatment
2 Plant located in Trenton.⁷⁴

3

4 **Q. IS IT CORRECT THAT NEW JERSEY AMERICAN WATER COMPANY**
5 **PROPOSES TO CREATE A NEW DISPATCH CENTER FOR ITS**
6 **EMPLOYEES WITHIN THE OWUS IF THE PROPOSED SALE IS**
7 **CONSUMMATED?**

8 A. Yes. The Company proposes to lease a facility at an annual cost of \$60,000. The
9 related operating expenses are \$13,500.⁷⁵

10

11 **Q. WOULD THIS ADDITIONAL ANNUAL EXPENSE OF \$73,500 BE**
12 **INCURRED ABSENT THE PROPOSED TRANSACTION TO SELL THE**
13 **OWUS?**

14 A. I can see no reason why such a cost would be incurred unless the system is
15 divided.

16

17 ***C. Control System Duplication***

18 **Q. IF THE TRENTON WATER WORKS SYSTEM IS DIVIDED INTO THE**
19 **IWUS AND OWUS, HOW WILL NEW JERSEY AMERICAN WATER**
20 **COMPANY MONITOR AND OPERATE THE OWUS DISTRIBUTION**
21 **NETWORK?**

⁷⁴ RCR-E-54.

⁷⁵ RCR-E-52.

1 A. According to the testimony of Mr. Clarkson, the Company proposes to install
2 “automated controls and instrumentation at primary operational locations.”⁷⁶
3 These controls are also described by Mr. Clarkson as a Supervisory Control and
4 Data Acquisition System, or “SCADA” system.⁷⁷
5

6 **Q. HOW DOES TRENTON WATER WORKS CURRENTLY MONITOR**
7 **AND OPERATE THE FACILITIES IN THE OWUS?**

8 A. The City operates the booster stations and elevated tanks using an existing
9 SCADA system located at the Water Filtration Plant in the City of Trenton.⁷⁸
10

11 **Q. CAN THIS EXISTING SYSTEM BE USED BY NEW JERSEY AMERICAN**
12 **WATER COMPANY TO MONITOR AND OPERATE THE OWUS AFTER**
13 **THE PROPOSED SALE OF THE SYSTEM?**

14 A. No. Even though New Jersey American Water Company will have operators and
15 supervisory personnel operating the Water Filtration Plant under the terms of the
16 Agreement of Sale and one of the duties of these operators will be to “Monitor all
17 remote stations and equipment record data, make flow adjustments,”⁷⁹ the City
18 will not allow New Jersey American Water Company to utilize the SCADA
19 system for their own operational purposes.⁸⁰
20

⁷⁶ Clarkson, JP-5, p. 9, line 11.

⁷⁷ Ibid; p. 9, lines 15-16.

⁷⁸ RCR-E-60.

⁷⁹ JP-12, Agreement of Sale; Exhibit L, p. 12, Basic Services.

⁸⁰ RCR-E-60.

1 **Q. WHERE AND WHEN WILL NEW JERSEY AMERICAN WATER**
2 **COMPANY INSTALL ITS SCADA SYSTEM?**

3 A. The Company proposes to begin installing its SCADA equipment immediately
4 after the proposed closing and this system will be added to an existing control
5 center located in Delran, New Jersey.⁸¹

6
7 **Q. WHAT IS THE ESTIMATED COST OF THE NEW JERSEY AMERICAN**
8 **WATER COMPANY SCADA SYSTEM?**

9 A. The cost is estimated at \$368,000, which will represent a future rate base claim.

10
11 **Q. DO YOU BELIEVE THIS ADDITIONAL CAPITAL EXPENSE IS**
12 **NECESSARY?**

13 A. Absent the proposed sale transaction and the City's refusal to allow the Company
14 to utilize the existing system, I do not believe such an expense is warranted. The
15 proposal to divide the Trenton Water Works system into two separate water
16 systems is the genesis of this proposal and absent the division of the system, this
17 would be unnecessary.

18
19 **Q. IS THE EXPENSE OF INSTALLING THE SCADA SYSTEM INCLUDED**
20 **IN THE PURCHASE PRICE OR ANY OF THE ADDITIONAL SYSTEM**
21 **SEPARATION COSTS?**

⁸¹ RCR-E-61 and RCR-E-62.

1 A. No. This is an additional expense⁸² which will be borne by rate payers in the future
2 if the proposed transaction is approved.
3

4 *D. Antennae Lease Revenues*

5 **Q. WHAT REVENUES ARE DERIVED BY THE CITY OF TRENTON FROM**
6 **ANTENNAE LEASES IN THE OWUS?**

7 A. In FY2007, antennae leases in the OWUS produced \$77,540 in revenue.⁸³
8

9 **Q. HOW WILL THE ANTENNAE LEASES BE ADDRESSED IF THE**
10 **PROPOSAL TO SELL THE OWUS IS APPROVED?**

11 A. According to the Agreement of Sale, the leases will be assigned to New Jersey
12 American Water Company but the revenues derived from those leases will be
13 retained by the City for the remainder of the original term of the lease.⁸⁴
14

15 *E. Regionalization Issues*

16 **Q. HAVE THE JOINT PETITIONERS CLAIMED THAT THE PROPOSED**
17 **TRANSACTION WILL ENHANCE DROUGHT MANAGEMENT AND**
18 **WATER SUPPLY PLANNING?**

19 A. Yes. The Joint Petitioners claim that New Jersey American Water Company
20 ownership of the OWUS will create conditions whereby droughts could be

⁸² SW-12.

⁸³ RCR-E-37.

⁸⁴ JP-12; Agreement of Sale; p. 11, Paragraph 2(a)(iv) and RCR-E-87.

1 managed more effectively in the Raritan Basin and in northeast New Jersey. The
2 Joint Petitioners claim that the sale of the OWUS would facilitate transfers of
3 water from Trenton to the Company's Raritan system and this would free up
4 Raritan supplies for use in mitigating droughts in northeast New Jersey.⁸⁵

5

6 **Q. DO YOU BELIEVE THAT THIS BENEFIT COULD ACTUALLY BE**
7 **REALIZED?**

8 A. No, not without the consent of the Delaware River Basin Commission (DRBC or
9 Commission) and the Compact signatories. Transfers of water out of or into the
10 Delaware River Basin are strictly regulated. In fact, the allotment of water
11 available to the State of New Jersey in aggregate is regulated by the Delaware
12 River Basin Compact, the 1954 US Supreme Court Decree and the Good Faith
13 Agreement among the Compact Signatories.

14

15 **Q. WHO ARE THE COMPACT SIGNATORIES?**

16 A. The United States of America, the State of New York, the State of New Jersey, the
17 Commonwealth of Pennsylvania and the State of Delaware are the signatories.

18

19 **Q. WHAT IS THE STATE OF NEW JERSEY'S ALLOTMENT UNDER THE**
20 **1954 US SUPREME COURT DECREE?**

⁸⁵ RCR-E-105, p. 2 of 2.

1 A. During normal water supply conditions, the State of New Jersey is limited to an
2 out-of basin diversion of 100 Million Gallons per Day (MGD).⁸⁶

3

4 **Q. HOW IS THIS ALLOTMENT MODIFIED BY THE GOOD FAITH**
5 **AGREEMENT?**

6 A. The parties to the 1954 Supreme Court Decree have agreed that during drought
7 conditions the 100 MGD allotment for the State of New Jersey will be
8 progressively lowered to 65 MGD.⁸⁷ There is also a passing flow target designed
9 to repel salinity in the lower reaches of the Delaware River designed to protect
10 wellfields in the Camden New Jersey area and to assure the availability of fresh
11 water at the City of Philadelphia's drinking water intake in the Torresdale section
12 of the City. The passing flow at Trenton is a minimum of 3,000 cubic feet per
13 second (cfs) during normal conditions and this is reduced to as low as 2,500 cfs
14 during drought conditions.⁸⁸

15

16 **Q. HAVE THE JOINT PETITIONERS OBTAINED DRBC APPROVAL FOR**
17 **THE CONSTRUCTION OF THE EXISTING EMERGENCY**
18 **INTERCONNECTION BETWEEN THE TRENTON WATER WORKS**
19 **SYSTEM AND THE COMPANY'S RARITAN SYSTEM?**

⁸⁶ State of New Jersey v. State of New York; Supreme Court of the United States; June 7, 1954; Para. V.B.3.

⁸⁷ Interstate Water Management Recommendations of the Parties to the U.S. Supreme Court Decree of 1954 to the Delaware River Basin Commission Pursuant to Commission Resolution 78-20; Delaware River Basin Commission; November 1982; p. 2.

⁸⁸ Ibid; p. 2.

1 A. No.⁸⁹

2

3 **Q. DO YOU BELIEVE THAT SUCH AN APPROVAL IS REQUIRED BY**
4 **THE DELAWARE RIVER BASIN COMPACT?**

5 A. Yes. Section 3.3 of the Compact defines the powers of the Commission to allocate
6 waters of the basin consistent with the terms of the 1954 Supreme Court Decree
7 and paragraph (a) sets out certain limitations on the Commission's powers.
8 Specifically, the Commission may only alter the rights of the parties to the 1954
9 Supreme Court decree with the unanimous consent of the parties after declaring a
10 drought emergency. Since the use of the interconnections to transfer water into or
11 out of the basin has an impact on the State of New Jersey's diversion limitations,
12 the Commission, after obtaining consent of the parties would have to authorize the
13 use of the emergency interconnections. In addition, Section 3.8 of the Compact
14 bars any person, corporation or government authority from undertaking such a
15 project without prior approval of the Commission.

16

17 **Q. ARE YOU AWARE OF ANY SIMILAR SITUATIONS IN WHICH THE**
18 **COMMISSION OR ANY OF THE PARTIES TO THE 1954 SUPREME**
19 **COURT DECREE WITHHELD CONSENT FOR EMERGENCY WATER**
20 **TRANSFERS?**

21 A. Yes. During the 1980/1981 drought, a pipeline was installed over the George
22 Washington Bridge to provide an emergency supply of water to the Hackensack

⁸⁹ BPU Docket No. WR08010020; RCR-E-262.

1 Water Company, which was in dire need of additional water supplies. The
2 pipeline would have allowed water from the New York City reservoirs to be
3 transferred to Hackensack thereby relieving stress on the Oradell Reservoir.
4 Although the pipeline was in place and ready to operate, the State of New York
5 withheld its consent to the use of the pipeline until the State of New Jersey agreed
6 that any water transferred through the pipeline would be charged against the New
7 Jersey allotment.

8
9 **Q. HOW WOULD THIS CONCEPT BE APPLIED TO THE TRENTON**
10 **EMERGENCY INTERCONNECTIONS?**

11 A. The flow of water through the emergency interconnections would represent a
12 consumptive diversion of water from the Delaware River Basin to the Raritan
13 River Basin. As a result, any such transfer of water would be treated by the
14 Commission as a portion of the New Jersey allotment and could only be made with
15 consent. If this consent were granted, some other consumptive diversion such as
16 the diversions made via the Delaware & Raritan Canal would need to be reduced.
17 During a drought, New Jersey is limited to 65 MGD so long as the Trenton passing
18 flow objective can be met. As a result, there would be no net gain in the amount of
19 water diverted from the Delaware River Basin. Furthermore, it is the
20 Commission's policy to discourage the exportation of water beyond the Basin,⁹⁰ so
21 it is unlikely that any routine transfer of water outside of the OWUS would be
22 permitted under normal conditions.

⁹⁰ Delaware River Basin Water Code; 18CFR Part 410; Section 2.30.2.

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Q. ASSUMING THE JOINT PETITIONERS CAN OBTAIN THE REQUIRED DRBC APPROVALS FOR THE EMERGENCY INTERCONNECTIONS, PLEASE EXPLAIN WHY THE OWNERSHIP OF THE OWUS WOULD NEED TO CHANGE TO ACHIEVE THE BENEFITS OF REGIONALIZATION CLAIMED IN THIS PROCEEDING?

A. The ownership of the OWUS has no bearing on this. The emergency interconnections were designed before the sale of the OWUS was considered and would provide the physical capacity to transfer water to or from the Trenton Water Works as needed. Contracts governing the use of the emergency interconnections are already in place and in fact, the completed interconnection has already been used to support the Trenton Water Works system.

Q. DOES THE POTENTIAL SALE OF THE OWUS RAISE ANY OTHER ISSUES WITH RESPECT TO WATER MANAGEMENT WITHIN THE DELAWARE RIVER BASIN?

A. Yes. The Trenton Water Works diverted water from the Delaware River prior to the establishment of the Delaware River Basin Commission and as a result is viewed as a pre-Compact user. The Commission is prohibited from charging Trenton for water diversions made within its allotment by Section 15.1(b) of the Compact. The use of water within the City limits and within the areas of the outlying Townships served prior to the enactment of the Compact are not subject to such charges. Expansions made after 1961, when the Compact was signed, are

1 subject to diversion charges. The City did in fact apply for and receive permission
2 from the Commission to expand service into 2,634 acres of Hopewell Township
3 and diversion fees are paid for up to 1.5 MGD of diversions.⁹¹ The proposed sale
4 of the OWUS raises the issue that some of the pre-Compact allotment granted to
5 the City of Trenton would in fact be used by a new entity, New Jersey American
6 Water Company. The proposed change in ownership of the system should be
7 reviewed by the Commission prior to closing so that a proper allocation of the
8 allotment can be made and incorporated into the Basin Comprehensive Plan.

9
10 **Q. IN CONDUCTING ITS REVIEW OF THE PROPOSED SALE OF THE**
11 **OWUS, HOW WOULD YOU EXPECT THE COMMISSION TO ADDRESS**
12 **THE EXISTING ALLOTMENT?**

13 A. The principal concern of the Commission would revolve around the possibility of
14 water being exported from the Basin through the OWUS and their approval would
15 likely place limitations on this.⁹² In addition, the Commission would also seek to
16 ensure that the Basin Comprehensive Plan properly allocates the Trenton allotment
17 to the City of Trenton (i.e. the IWUS) and to New Jersey American Water
18 Company for use in the OWUS.⁹³ The proposed sale would create a new Public
19 Water Supply System,⁹⁴ which would be regulated by both the Commission and
20 New Jersey Department of Environmental Protection (“NJDEP”). Because the
21 Commission’s review would consider actual use by the Trenton Water Works it is

⁹¹ Delaware River Basin Commission Docket D-98-9CP.

⁹² Delaware River Basin Water Code; 18CFR Part 410; Section 2.40.2.

⁹³ Delaware River Basin Compact; Section 3.3.

⁹⁴ RCR-E-27.

1 possible that the sum of the allotments for the surviving entities would be reduced
2 from the 50 MGD allotment now held by the City of Trenton. The peak daily use
3 by Trenton Water Works in the last five years was 38.5 MGD,⁹⁵ and this value
4 could be used by the Commission as a possible cap on the updated allotments. It is
5 also likely that the portion of the allotment that would be assigned to New Jersey
6 American Water Company would be fully subject to surface water diversion
7 charges levied by the Commission.
8

9 **Q. WOULD A REDUCTION IN THE ALLOTMENT HAVE ANY OTHER**
10 **IMPACTS ON THE IWUS OR OWUS?**

11 A. The City is currently in the process of upgrading its Water Filtration Plant. This
12 project will increase the firm capacity of the plant from 45 to 60 MGD.⁹⁶
13 However, a reduction in the allotment could create a stranded-plant issue that
14 would need to be addressed in future New Jersey American Water Company rate
15 proceedings.
16

17 **Q. PLEASE EXPLAIN THIS ISSUE.**

18 A. The expanded plant capacity exceeds the current allotment, so a portion of the
19 expansion may not be useful even without action by the Commission. A reduced
20 allotment could prevent the City from utilizing the full capacity of the expanded
21 treatment plant. The Water Supply Agreement executed by the City and New
22 Jersey American Water Company obligates New Jersey American Water

⁹⁵ RCR-E-30.

⁹⁶ RCR-E-31.

1 Company to pay a capital improvement surcharge on an allocated share of the
2 Water Filtration Plant improvement project. To the extent that the allocation
3 method burdens New Jersey American Water Company with costs associated with
4 utility plant that is not used and useful, a stranded-plant issue arises. Any costs
5 associated with facilities that are not used and useful should not be allowed in
6 rates.

7
8 **Q. IN ADDITION TO THESE ISSUES CONCERNING THE DELAWARE**
9 **RIVER BASIN, HAVE THE JOINT PETITIONERS NOTED ANY OTHER**
10 **POTENTIAL BENEFITS OF THE SALE?**

11 A. The Joint Petitioners note that New Jersey American Water Company will install
12 two-way metering systems to allow water to be transferred to the IWUS in an
13 emergency. However, it should be noted that the Trenton Water Works system
14 currently operates as an integrated water distribution network. The only reason
15 there is even a need to address two-way metering between the IWUS and OWUS
16 as an emergency feature is because the Joint Petitioners have proposed to divide
17 the existing water system into two separate systems. The existing emergency
18 interconnection agreements developed by Trenton Water Works and
19 Elizabethtown Water Company (now New Jersey American), would have allowed
20 emergency supplies to be sent to the Trenton Water Works system and there would
21 be no need to address the means by which water would be transferred from the
22 OWUS to the IWUS simply because the existing system is an integrated system
23 which is not divided in a way that would limit such flow.

1

2 Q. **DOES THIS COMPLETE YOUR TESTIMONY AT THIS TIME?**

3 A. Yes, it does.

1

APPENDIX A - Qualifications

2

Detailed Discussion of Professional Qualifications

3

Of

4

Howard J. Woods, Jr., P.E.

1 **Q. PLEASE PROVIDE A MORE DETAILED DESCRIPTION OF YOUR**
2 **PROFESSIONAL EXPERIENCE.**

3 A. From October 1977 through October 1981, I worked with the U.S. Environmental
4 Protection Agency's Region III Water Supply Branch. In this position I developed
5 system surveillance programs, evaluated the sanitary integrity of existing water
6 supply facilities, provided technical assistance to water suppliers and engineers in
7 regard to water treatment and the construction, operation and maintenance of water
8 supply facilities. I recommended treatment techniques and the addition of sanitary
9 facilities to municipal and investor owned utilities, coordinated emergency
10 responses to cases of water supply contamination and was individually responsible
11 for the implementation of the Safe Drinking Water Act in a 14 county area of
12 Pennsylvania.

13 From October 1981 through May 1983, I worked as a project engineer for
14 the engineering firm of Johnson, Mirmiran and Thompson, P.A. of Silver Spring,
15 Maryland. While working for this firm I designed numerous water supply systems
16 wastewater treatment and conveyance systems and storm drainage facilities. I
17 investigated the suitability and condition of various existing water supply systems
18 and developed comprehensive facility plans for a number of the firm's clients. In
19 this position I functioned as a project engineer responsible for defining and
20 carrying out engineering work necessary for the timely and accurate completion of
21 design projects. As a client's representative, I also bid projects involving the
22 construction of facilities using construction documents I prepared for the client.

1 These were for new projects as well as for projects requiring the renovation of
2 existing facilities.

3 From May 1983 through November 1984, I served as Director of
4 Engineering for American Water Works Service Company's Eastern Division. In
5 this position I directed the long-range planning and design functions of New York-
6 American Water Company and New Jersey American Water Company. I
7 supervised the execution of engineering projects related to the design,
8 construction, operation and maintenance of company water and sewer facilities. In
9 this position, I was responsible for the successful completion of an annual
10 construction budget of approximately \$15 million and a facility maintenance
11 budget of approximately \$10 million. This work included the maintenance and
12 renovation of wells in Burlington and Camden Counties and the construction of
13 new wells in Atlantic and Warren Counties. I evaluated facilities, prepared or
14 directed the preparation of engineering designs, pre-qualified bidders, solicited
15 bids, and served as the Company's representative in managing construction and
16 maintenance projects. I had authority to review and execute change orders on
17 construction projects when actual field conditions were found to differ from
18 anticipated conditions.

19 From November 1984 through December 1985, I served as Manager of
20 Operations for the Eastern Division of American Water Works Service Company.
21 In this position I supervised all aspects of engineering, water quality, materials
22 management and risk management for the Company's Eastern Division. This
23 included the Company's operations in New York and New Jersey. I managed a

1 \$120 million maintenance and operations budget and a \$20 million construction
2 budget. I directed the procurement of engineering design services and construction
3 services on approximately sixty major capital projects and hundreds of smaller
4 maintenance and repair projects. During this period, I was responsible for the
5 rehabilitation of the Company's Canoe Brook Well Field in Millburn, New Jersey.
6 I also completed nearly \$3 million in renovation work at Company wells in
7 Burlington and Camden Counties.

8 From December 1985 through August of 1988, I served as System Director
9 of Planning for American Water Works Service Company. In this position I
10 directed the development of strategic and comprehensive plans for all American
11 System companies located throughout the country through a staff of engineers and
12 technical personnel working under my direction. I evaluated the suitability of
13 existing source, treatment and distribution facilities, wastewater conveyance and
14 treatment facilities and made long range projections concerning the need for new
15 facilities or operational modifications to existing facilities.

16 In the next three assignments with American Water Works Company, I
17 directed operations and maintenance budgets that averaged \$150 million per year
18 and capital budgets that ranged from \$30 million to \$120 million per year for the
19 Company's operations in New Jersey, New York and Connecticut. Engineering
20 designs were prepared under my direction. I directed the competitive bidding of
21 capital and maintenance projects. The largest of these was the design and
22 construction of the Delaware River Regional Water Treatment Plant; a \$192

1 million treatment plant and pipeline system that now serves much of Burlington,
2 Camden and Gloucester Counties.

3 From August 1988 through April 1989, I served as Regional Manager of
4 Engineering for American Water Works Service Company's Eastern Region. In
5 this position I developed engineering goals and objectives for each of the
6 Company's operating systems in Connecticut, New York and New Jersey. I
7 analyzed operating reports to determine the status of all phases of engineering,
8 administration, planning, design and construction necessary to meet the Company's
9 goals and objectives in providing safe, adequate and proper water supply service.

10 From April of 1989 to July 1993, I served as Regional Manager of
11 Operational Services for American Water Works Service Company's Eastern
12 Region. In this position I was responsible for the provision of administrative,
13 engineering, loss control, resource conservation and water quality services
14 required by the operating companies in the Eastern Region. In this position I
15 directed water company operations to assure compliance with approved operating
16 and maintenance budgets, capital construction programs, long range corporate and
17 comprehensive plans, risk exposure reduction, safety and loss control procedures,
18 water conservation programs and water quality objectives. In this position I also
19 served as Vice President of New Jersey American Water Company, Connecticut-
20 American Water Company and New York-American Water Company.

21 From July 1993 through May 1997, I served as Vice-President of New
22 Jersey American Water Company. In this position, I served as chief operations
23 officer for the Company. I was responsible for all operations functions including

1 production, distribution, maintenance services and commercial services. I directed
2 a staff of 450 management and unionized employees. These responsibilities
3 included the maintenance of over 150 wells located throughout New Jersey,
4 several large surface water treatment facilities, nearly 100 distribution storage
5 tanks and approximately 4,000 miles of water distribution mains. I was also
6 responsible for the Company's sanitary sewer operations. These facilities were
7 composed of several hundred miles of pipe and numerous pump stations. I
8 planned and directed work required to maintain these facilities in peak operating
9 performance. This work included electrical and mechanical maintenance
10 associated with pumping equipment and controls.

11 In June of 1991, I was appointed by Governor Florio to serve as the
12 investor-owned water supplier representative on the New Jersey Water Supply
13 Advisory Council. The Council advises the New Jersey Department of
14 Environmental Protection ("NJDEP," formerly the New Jersey Department of
15 Environmental Protection and Energy") on a wide range of water supply issues
16 such as water quality, facility construction requirements, statewide water supply
17 planning and water supply management. Governor Whitman reappointed me to the
18 Council 1994 and I served through mid 1997.

19 From May of 1997 through July 2000, I directed the acquisition and
20 business development activities of American Water Works Service Company and
21 a joint venture operation of the Company known as AmericanAnglian
22 Environmental Technologies. I directed the development of bids on operations
23 and maintenance contracts to operate municipally owned water and wastewater

1 systems. I reviewed contract documents and directed a staff of engineers and
2 analysts in preparing responsive bids and proposals for prospective municipal
3 clients. In 1999, my team returned the second best business development
4 performance in the United States and we won the largest operations and
5 maintenance contract awarded that year (Scranton Sewer Authority, Scranton,
6 Pennsylvania). I also directed the operations of the joint venture. This business
7 unit was the seventh largest private municipal water and wastewater contractor in
8 the United States. I directed the maintenance and operations functions of over 175
9 contracts dedicated to the operation of municipal water and wastewater utilities
10 and industrial and commercial clients.

11 Since July 2000, I have worked as an independent consultant.
12 Representative clients include the New Jersey Department of the Public Advocate,
13 Division of Rate Counsel ("Rate Counsel"), the Delaware Public Advocate,
14 Passaic Valley Water Commission, Consumers New Jersey Water Company,
15 PricewaterhouseCoopers LLP, BOC Gases Inc., the Pittsburgh Water & Sewer
16 Authority/U.S. Water L.L.C., Upper Dublin Township (PA) and the Elmira (NY)
17 Water Board. I have also served as an expert witness in a matter concerning the
18 contamination of municipal water system in New Jersey.

19 I directed and managed the procurement process leading to the sale of a
20 municipal wastewater system in southeastern Pennsylvania. The Upper Dublin
21 Township Sanitary Sewer System sold for \$20,000,000. This system serves
22 approximately 8,000 connections and has annual revenues of \$3,000,000. I
23 advised the Township on alternative outsourcing and contracting approaches,

1 reduced interim operating expenses by 30% by renegotiating the plant operations
2 contract prior to the sale of the system.

3 I prepared an analysis of ownership alternatives for Lower Makefield
4 Township's sanitary sewer collection system. I managed a procurement process
5 that lead to the receipt of a \$17 million bid for the potential sale of a system
6 serving 10,700 residential and commercial customers.

7 I completed an energy management evaluation for the Elmira (NY) Water
8 Board and provided operator training on energy management strategies.
9 Recommendations from the study allowed the client to reduce energy expenses by
10 30% through a series of operational modifications.

11 I completed an energy management audit of the Pittsburgh Water and
12 Sewer Authority and identified strategies for reducing power consumption. The
13 results of this investigation provided the foundation for the Authority and its
14 contract manager (U.S. Water L.L.C.) to develop and implement more effective
15 maintenance and operations procedures to reduce energy costs.

16 I assisted the Banco Gubernamental de Fomento para Puerto Rico,
17 Autoridad para el Financiamiento de la Infraestructura de Puerto Rico and
18 PricewaterhouseCoopers in developing a new operating contract for the Puerto
19 Rico Aqueduct and Sewer Authority (PRASA). The contract was developed, bid
20 and awarded in less than six months, cutting the normal procurement time by
21 nearly two-thirds. The new ten-year agreement with Ondeo will allow the
22 government of Puerto Rico to eliminate the annual operations subsidy while
23 service is improved. The value of the contract is \$300 million per year.

1 I assessed an existing public private partnership contract and future
2 contracting alternatives for the Jersey City Municipal Utilities Authority
3 (JCMUA). I recommended alternative contract terms and assisted JCMUA in
4 negotiating a new ten-year operations agreement saving approximately
5 \$3,000,000 per year.

6 I reviewed engineering plans and operational practices in numerous water
7 and wastewater rate adjustment proceedings and quality of service proceedings
8 for the New Jersey Public Advocate, Division of the Rate Counsel. These
9 reviews involved an assessment of utility engineering design and construction
10 plans, the development of alternatives to utility proposed projects, and
11 evaluations of the utility companies' ability to render safe, adequate and proper
12 water or wastewater service. In these proceedings, I served as an engineering
13 and operations expert:

- 14 • Acacia Lumberton Manor Fire Service Complaint
15 BPU Docket No. WC01080495
- 16 • Applied Waste Water Management Rates
17 BPU Docket No. WR03030222
- 18 • Applied Waste Water Management Franchise
19 BPU Docket No. WE03070530
- 20 • Applied Waste Water Management Andover Franchise
21 BPU Docket No. WE04111466
- 22 • Applied Waste Water Management Hillsborough Franchise
23 BPU Docket No. WE04101349
- 24 • Applied Waste Water Management Oakland Franchise
25 BPU Docket No. WE04111467
- 26 • Applied Waste Water Management Union Twp Franchise
27 BPU Docket No. WE050414
- 28 • Aqua NJ Pine Hill Franchise
29 BPU Docket No. WE05070581
- 30 • Aqua NJ Upper Freehold Franchise
31 BPU Docket No. WE05100822
- 32 • Aqua New Jersey Base Rate Case
33 BPU Docket No. WR07120955

- 1 • Bayview Water Company Rates
- 2 BPU Docket No. WR01120818
- 3 • Borough of Haledon Rates
- 4 BPU Docket No. WR01080532
- 5 • City of Orange Privatization Review
- 6 BPU Docket No. WO03080614
- 7 • Crestwood Village Loan Approval
- 8 BPU Docket No. WF04091042
- 9 • Crestwood Village Water Co Base Rates
- 10 BPU Docket No. WR07090706
- 11 • Elizabethtown Water Co. v. Clinton Board of Adjustment
- 12 BPU Docket No. WE02050289
- 13 • Elizabethtown Water Company Rates
- 14 BPU Docket No. WR03070510
- 15 • Elizabethtown Water Company Franklin Franchise
- 16 BPU Docket No. WE05020125
- 17 • Elizabethtown Water Company Purchased Water Adjustment Clause
- 18 BPU Docket No. WR04070683
- 19 • Environmental Disposal Corporation Main Extension Agreement
- 20 BPU Docket No. WO04091030
- 21 • Environmental Disposal Corporation Rates
- 22 BPU Docket No. WR04080760
- 23 • Environmental Disposal Corporation Rates
- 24 BPU Docket No. WR07090715
- 25 • Fayson Lake Water Company Rates
- 26 BPU Docket No. WR03040278
- 27 • Fayson Lake Water Company Base Rates
- 28 BPU Docket No. WR07010027
- 29 • Gordon's Corner Water Company Rates
- 30 BPU Docket No. WR03090714
- 31 • Lake Valley Water Company Rates
- 32 BPU Docket No. WR04070722
- 33 • Middlesex Water Company Rates
- 34 BPU Docket No. WR03110900
- 35 • Middlesex Water Company Rates
- 36 BPU Docket No. WR05050451
- 37 • Middlesex Water Company Base Rates
- 38 BPU Docket No. WR07040275
- 39 • Montague Water Company Rates
- 40 BPU Docket No. WR03121034
- 41 • Montague Sewer Company Rates
- 42 BPU Docket No. WR03121035
- 43 • Montague Sewer Company Rates
- 44 BPU Docket No. WR05121056
- 45 • Mount Holly Water Company Rates
- 46 BPU Docket No. WR03070509
- 47 • Mount Olive Villages Water & Sewer Franchise
- 48 BPU Docket No. WE03120970

- 1 • New Jersey American Water Company Rates
- 2 BPU Docket No. WR03070511
- 3 • New Jersey American Water Company Rates
- 4 BPU Docket No. WR06030257
- 5 • New Jersey American Water Purchased Water Adjustment Clause
- 6 BPU Docket No. WR05110976
- 7 • Parkway Water Company Rates
- 8 BPU Docket No. WR05070634
- 9 • Pinelands Water Company Rates
- 10 BPU Docket No. WR03121016
- 11 • Pinelands Wastewater Company Rates
- 12 BPU Docket No. WR03121017
- 13 • Seabrook Water Company Franchise
- 14 BPU Docket No. WC02060340
- 15 • Shorelands Water Company Rates
- 16 BPU Docket No. WR04040295
- 17 • South Jersey Water Supply Change in Control
- 18 BPU Docket No. WM07020076
- 19 • United Water Acquisitions Evaluation
- 20 BPU Docket No. WM02060354
- 21 • United Water New Jersey Base Rates
- 22 BPU Docket No. WR07020135
- 23 ▪ United Water New Jersey Management Audit
- 24 BPU Docket: WA05060550

25 I prepared a long-range water supply needs forecast for the Passaic Valley
26 Water Commission. I analyzed water use patterns within the Commission's
27 retail service area and for over two dozen large contract customers. I produced
28 population forecasts for the service area and individual water demand forecasts
29 for each contract sale-for-resale customer using statistical and numeric
30 forecasting techniques. The forecast projects total annual demand, average day,
31 maximum month and maximum day demands and forms the basis for other
32 ongoing facility and operations planning efforts. Current efforts involve the
33 preparation and support of a renewed surface water diversion permit for the
34 Commission which will support more flexible operations and more efficient
35 source utilization. The Commission serves a retail service population of

1 325,000 and effectively serves an additional 260,000 people through sale-for-
2 resale connections.

3 I have also developed, on behalf of Passaic Valley Water Commission, a
4 model of the major water resources facilities in the Passaic, Pompton, Ramapo
5 and Hackensack River Basin that allows the calculation of the safe and
6 dependable yield of the Wanaque/Monksville, Point View and Oradell Reservoir
7 systems under varying drought conditions. The model is being used by Passaic
8 Valley Water Commission to evaluate long term water supply management
9 strategies and to plan for future water supply needs.

10 I completed an independent assessment of the planning and engineering
11 decision making for a major water treatment plant renovation project undertaken
12 by Aquarion Water Company of Connecticut in Stamford Connecticut. I
13 evaluated process selection decisions, project sizing and regulatory compliance
14 issues and testified before the Connecticut Department of Public Utility Control
15 on the findings of the evaluation.

16 I served as an expert witness in a matter involving the alleged
17 contamination of a New Jersey municipal water system with heavy metals and
18 organic chemicals. I reviewed over 38,000 discrete water quality sample results,
19 analyzed the operational records of the system and developed a computer model
20 (EPANET2) depicting water flow and water quality changes over a period
21 spanning two decades. I assisted the client in successfully defeating a threatened
22 class action lawsuit at the certification level.

1

APPENDIX B - Schedules

2 **LIST OF SCHEDULES**

3 HJW-1: Calculation of Non-Revenue Water

4 HJW-2: Calculation of Estimated Rate Increase

Schedule HJW-1: Calculation of Non-Revenue Water

WATER BALANCE (12-Month Running Totals, All Units in Thousand Gallons per Year Except Col G in %)		Billed Authorized Consumption		Billed Metered Consumption Including Water Sold to Other Systems		Revenue Water		Percent Revenue Water	
Water Produced From Own Sources	9,589,512	Authorized Consumption	6,301,225	Billed Metered Consumption	6,301,225	Revenue Water	6,301,225	Percent Revenue Water	65.56%
		Unbilled Authorized Consumption	68,642	Unbilled Metered Consumption	68,642	Non-Revenue Water	3,310,687	Percent Non-Revenue Water	34.44%
		System Input Volume	9,611,912	Unbilled Unmetered Consumption	-				
Treated Water Purchased From Other Systems	22,400	Apparent Losses	63,699	Unauthorized Consumption	-				
		Water Losses	3,242,046	Metering Inaccuracies	63,699				
				Leakage on Transmission & Distribution Mains	564,379				
				Leakage and Overflows From Distribution Storage	-				
				Leakage on Service Lines Prior to Customer Meter	2,613,968				
					9,611,912		9,611,912		100%

References: RCR-E-6, RCR-E-7, RCR-E-8, RCR-E-10, RCR-E-11

Schedule HJW-2: Calculation of Estimated Rate Increase	Projected		Projected		Projected		Budget		Compiled		Audit	
	2011	2010	2009	2008	2007	2006	2005	2004				
Operating Expenses:	\$ 27,395,128	\$ 25,844,461	\$ 24,381,567	\$ 23,001,478	\$ 19,388,618	\$ 18,564,387	\$ 19,753,591	\$ 17,741,167				
Income (Loss) After Capital & Debt	\$ (10,420,124)	\$ (8,685,070)	\$ (6,267,365)	\$ (2,254,182)	\$ 952,555	\$ 1,197,026	\$ (1,072,009)	\$ 257,959				
Surplus to Current Fund per Sched HJL-1	\$ (3,000,000)	\$ (3,000,000)	\$ (3,000,000)	\$ (3,000,000)	\$ (6,241,769)	\$ (1,241,769)	\$ (1,239,827)	\$ (1,221,535)				
Transfers Authorized by NJSA 40A:4-35.1	\$ (1,369,756)	\$ (1,292,223)	\$ (1,219,078)	\$ (1,150,074)	\$ (969,431)	\$ (928,219)	\$ (987,680)	\$ (887,056)				
Fund Balance Ending with Authorized Transfers	\$ (20,740,945)	\$ (8,951,065)	\$ 1,026,229	\$ 8,512,672	\$ 11,416,928	\$ 11,207,341	\$ 10,549,508	\$ 12,501,059				
Minimum Working Capital per Sched HJL-1	\$ 2,318,201											
Rate Increase Estimated - 3 year period	\$ 23,059,146											
Rate Increase Estimated - Annual	\$ 7,686,382											
Rate Increase %	25.61%											

Reference: Exhibit JP-9, Schedule HJL-1; RCR-E-131

