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August 26, 2010

VIA FIRST CLASS MAIL

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Pennsylvania Public Utility Commission v. Pennsylvania-American Water
 Company – Coatesville Wastewater Operations
 Docket No. R-2010-2166212**

Dear Secretary Chiavetta:

Enclosed for filing is a Certificate of Service (original and three copies) evidencing service of the Rebuttal Testimony and Exhibits of Pennsylvania-American Water Company, Coatesville Wastewater Operations, upon the parties of record.

Very truly yours,

Anthony C. DeCusatis cr

Anthony C. DeCusatis

ACD/tp
Enclosures

cc: Per Certificate of Service
 Seth A. Mendelsohn
 Rod Nevirauskas

RECEIVED

AUG 26 2010

**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

**REBUTTAL TESTIMONY
OF
DAVID R. KAUFMAN**

**CONCERNING REQUIREMENTS OF THE
PENNSYLVANIA SEWAGE FACILITIES ACT
(ACT 537); CAPACITY PLANNING
REQUIREMENTS UNDER ACT 537;
PENNSYLVANIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
REQUIREMENTS AND GUIDELINES FOR
TREATMENT CAPACITY; THE ROLE OF
THE TRIBUTARY MUNICIPALITIES IN THE
CAPACITY PLANNING PROCESS;
MUNICIPAL APPROVAL OF THE REGIONAL
ACT 537 PLAN**

**PENNSYLVANIA-AMERICAN WATER COMPANY
(COATESVILLE WASTEWATER OPERATIONS)**

DOCKET NO. R-2010-2166212

August 26, 2010

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**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

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**REBUTTAL TESTIMONY
OF
DAVID R. KAUFMAN**

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I. INTRODUCTION AND PURPOSE OF TESTIMONY

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1. Q. Please state your name and business address.

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13

A. My name is David R. Kaufman. My business address is 800 West Hershey Park Drive, Hershey, PA 17033.

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2. Q. Have you previously submitted testimony in this proceeding?

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A. Yes. I submitted PAW Statement No. 2, which includes a statement of my experience and qualifications.

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3. Q. What is the purpose of your testimony?

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A. The purpose of my rebuttal testimony is to two-fold. First, I will respond to the direct testimony of the Municipal Sewer Group (MSG) witness Howard Solganick concerning the planning process under the Pennsylvania Sewage Facilities Act (Act 537) and how that process governs the capacity the Company has to have in place in order to satisfy Act 537 and the requirements of the Department of Environmental Protection (Pa. DEP) and the City/Borough Alliance (CBA) witness Robert D. Ambrose concerning cost recovery associated with a capacity expansion. In so doing, I will explain why the claims by the CBA and MSG witnesses that the Coatesville Wastewater Treatment Plant, following its reconstruction, has “excess capacity” are

1 wrong and are based on theories of capacity planning that the
2 Commission has rejected in prior cases. As part of this discussion, I
3 will identify the numerous errors of fact and logic that underlie the
4 contentions and adjustments proposed by those witnesses.

5 II. OVERVIEW

6 4. Q. **Please provide an overview of the principal facts that will frame**
7 **the issues and provide the necessary context, which is missing from**
8 **the direct testimony of the CBA and MSG witnesses.**

9 A. Certainly. Those key points are summarized below and, as necessary,
10 are elaborated upon later in this statement:

- 11 • The Company had to substantially upgrade the Coatesville
12 Wastewater Treatment Plant. The plant, which was placed in service
13 in 1932, was at the end of its life when the Company acquired the
14 Coatesville wastewater system in 2001. The plant was in very bad
15 condition, was experiencing failures of many key components and
16 could not meet proposed effluent standards. Consequently, the plant
17 had to be rebuilt without regard to the fact that – as I explain below –
18 it also did not provide sufficient treatment capacity.
- 19 • The treatment plant was in a “projected hydraulic overload” condition
20 at the time PAW acquired the Coatesville wastewater system. The
21 projected hydraulic overload condition was the basis for the Pa. DEP
22 Consent Decree issued on November 30, 2005 that obligated the

1. Company to increase treatment capacity in the plant within two years
2 from the date that all necessary permits for plant construction were
3 issued.

4 • Notwithstanding the Pa. DEP Consent Decree, CBA witness Ambrose
5 contends (CBA Statement No. RDA-1, p. 8) that plant capacity above
6 3.42 million gallons per day (MGD) should be considered “excess” by
7 the Commission in this case. Under Mr. Ambrose’s approach, even
8 some portion of the **pre-existing** plant would have been considered
9 “excess” for ratemaking purposes, which obviously does not make
10 any sense.

11 • Treatment capacity has to be adequate to meet the projected flows set
12 forth in the Act 537 Official Plans of the municipalities that send
13 sewage flows to be treated by a wastewater treatment plant (tributary
14 municipalities). The testimony of MSG’s witness seems to suggest
15 otherwise. If that is his position, then he is simply wrong. No one
16 familiar with Act 537 and Pa. DEP’s enforcement of the Act could
17 reasonably dispute that municipal Act 537 Official Plans govern the
18 need for wastewater treatment capacity. In fact, that is whole purpose
19 of requiring municipalities to prepare and file Act 537 Official Plans.

20 • The ten tributary municipalities of the Coatesville Wastewater
21 Treatment Plant were required by Pa. DEP to prepare individual Act
22 537 Official Plans that set forth projections of their anticipated growth

1 and associated sewage flows. Pa. DEP also required that a Regional
2 Act 537 Official Plan be prepared setting forth a plan for constructing
3 the treatment capacity needed to meet the flows projected by the
4 tributary municipalities in their individual Act 537 Official Plans.
5 PAW and its consultant URS Corporation¹ coordinated the
6 preparation of the Regional Act 537 Official Plan. Pa. DEP also
7 required that each tributary municipality approve and adopt the
8 Regional Act 537 Official Plan.

- 9 • As required by Pa. DEP, the Regional Act 537 Official Plan included
10 a detailed plan for increasing the capacity of the Coatesville
11 Wastewater Treatment Plant to 7.0 MGD. The plant capacity of 7.0
12 MGD was based upon – but was actually somewhat lower than – the
13 flows the municipalities projected in their Act 537 Official Plans over
14 a prospective ten-year planning horizon that began as of 2007 and
15 extended to 2017. Act 537 requires Official Plans to include a ten-
16 year projection of flows. Additionally, I would note that Pa. DEP
17 guidance documents propose twenty years as an appropriate planning

¹ URS Corporation is an international consulting engineering firm that is publicly held, listed on the New York Stock Exchange and has offices throughout the United States and other countries. URS has extensive experience in all forms of infrastructure capacity planning and has worked with municipalities throughout the Commonwealth to develop Act 537 Official Plans and with municipalities in other states to develop comparable types of sewage facility plans. URS was first retained by the City of Coatesville Municipal Authority in the 1990s to help with the Authority's Act 537 planning. PAW continued to employ URS after it acquired the wastewater system from the Authority. URS was retained by PAW only to assist in coordinating the development of the Regional Act 537 Official Plan and was not engaged as the consulting engineering firm for the design, engineering and construction management of the Coatesville Wastewater Treatment Plant rebuild.

1 horizon in sizing wastewater treatment capacity for new treatment
2 plants.

- 3 • The Regional Act 537 Official Plan was formally adopted and
4 approved by resolutions passed by each of the ten tributary
5 municipalities between April and June 2009. PAW Exhibit DRK-1R
6 is a copy of each of the ten resolutions. Each of the resolutions stated
7 that the Regional Act 537 Official Plan that the municipality was
8 thereby approving and adopting “selects the alternative of expanding
9 the existing PAWC stream discharge wastewater treatment plant
10 utilizing oxidation ditch technology to achieve a treatment capacity of
11 seven (7) million gallons per day annual average daily flow . . .”

12 Additionally, each resolution states that the municipality “will ensure
13 a complete and timely implementation of said plan by PAWC as
14 required by law (Section 5, Pennsylvania Sewage Facilities Act, as
15 amended).”

- 16 • The Regional Act 537 Official Plan was approved by Pa. DEP. By
17 granting Act 537 approval for 7.0 MGD of wastewater treatment
18 capacity, Pa. DEP found that the Regional Act 537 Official Plan
19 satisfactorily documented the projected sewage needs of the tributary
20 municipalities.

- 21 • The West Brandywine Township’s resolution adopting the Regional
22 Act 537 Official Plan was attested by Mr. Ronald A. Rambo, Jr., as

1 Manager, Secretary and Treasurer of the Township. Mr. Rambo
2 submitted testimony in August 2008 on behalf of MSG in the
3 Company's 2008 Coatesville Wastewater case. The testimony Mr.
4 Rambo submitted in that case concerning the Township's projections
5 for continued growth and its need for treatment capacity directly
6 contradicts the testimony submitted by Mr. Solganick in this case.
7 Mr. Rambo testified: "And there are other existing and proposed
8 developments that we anticipate, based on very strong indications of
9 present and future needs" (Direct Testimony Of Ronald A. Rambo,
10 Jr. On Behalf Of The Municipal Sewer Group at Docket No. R-2008-
11 232689, p. 9).²

- 12 • PAW worked closely with the tributary municipalities to refine their
13 projections of future sewage flows. However – and contrary to
14 assumptions that appear to underlie key elements of Mr. Solganick's
15 testimony – at the end of the day, the tributary municipalities are
16 responsible for, and have the sole authority to determine, what goes
17 into their Act 537 Official Plans.
- 18 • The coordination between PAW and the tributary municipalities
19 occurred at many levels. One very important part of that process was

² Mr. Solganick now contends (MSG St. HS-1, p. 14) that the tributary municipalities made sewage flow projections without knowing how those projections might impact the cost of the treatment plant and, therefore, their rates. However, in the same 2008 Coatesville wastewater case in which Mr. Rambo presented the testimony discussed above, Mr. Solganick also testified about the rate impact of a new plant and cautioned that, in his opinion, it could have a "significant and major impact on all existing and future customers" (Direct Testimony Of Howard Solganick On Behalf Of The Municipal Sewer Group at Docket No. R-2008-232689, p. 34).

1 monthly meetings initiated and coordinated by Mr. Rambo on behalf
2 of all the tributary municipalities. At those meetings, projections of
3 future sewage needs and PAW's plan to substantially rebuild the
4 Coatesville Wastewater Treatment Plant and expand its capacity to
5 7.0 MGD were addressed repeatedly and at length. In addition to Mr.
6 Rambo, other participants with whom I am familiar included Mr.
7 Gregg Prowatt, the Manager for Caln Township, and Mr. James
8 MacCombie, the engineer for the Townships of East Fallowfield,
9 Sadsbury, and West Brandywine. Although these individuals are
10 intimately familiar with the planning process, they are not witnesses
11 on MSG's behalf in this case. Mr. Rambo, who was an integral part
12 of the planning process all along, submitted testimony in 2008 that
13 contradicts key assertions made by Mr. Solganick in this case, as I
14 explained before. The monthly meetings are still being held as part of
15 the on-going process of evaluating capacity needs and the plans to
16 meet those needs.

- 17 • Neither Mr. Ambrose nor Mr. Solganick attended the monthly
18 meetings. I am not aware that either participated in any way in the
19 coordinated planning activities of PAW and the tributary
20 municipalities that formed the basis for the Regional Act 537 Official
21 Plan, which the tributary municipalities adopted, and which
22 specifically delineates 7.0 MGD as the capacity PAW would be
23 committed to build at the Coatesville Wastewater Treatment Plant. In

1 short, the planning process that Mr. Solganick contends was deficient
2 and insufficiently robust was one that was driven by his own clients,
3 who were an integral part of that process at every step.

- 4 • As discussed above, Mr. Solganick believes that the sewage flows
5 projected by the tributary municipalities in their respective Act 537
6 Official Plans are not an accurate depiction of probable future
7 conditions.³ As I explained, the tributary municipalities' projections
8 made in their own Act 537 Official Plans formed the basis for the
9 capacity plan set forth in the Regional Act 537 Official Plan, which is
10 the focus of Mr. Solganick's criticism. However, as late as February
11 12, 2009, the members of MSG – Mr. Solganick's own clients – did
12 not share his opinion. At that time, Mr. Rambo, on behalf of the
13 MSG members, submitted an Application to the Commonwealth of
14 Pennsylvania's H2O Grant Program requesting a \$20 million grant to
15 purchase an ownership interest in the expanded Coatesville
16 Wastewater Treatment Plant. The Application included, and relied
17 upon, flow projections from a draft of the Regional Act 537 Official
18 Plan (Exhibit 1 to the Application, Table IV-2) showing projected

³ This startling condemnation of the Act 537 planning undertaken by, among others, Mr. Solganick's own clients, reflects Mr. Solganick's opinion that the tributary municipalities based their Act 537 projections on their "wants" and not their "needs" and, therefore, overstated probable future growth and associated sewage flows (MSG Statement No. 1, p. 8 -13). Mr. Solganick also faults the Company for not having imposed hefty financial penalties, such as "earnest money" or "deposits," to keep the tributary municipalities honest and, in effect, save them from themselves (MSG Statement No. HS-1, p. 13). However, no one from MSG or any other tributary municipality that participated in the planning process has been presented as a witness, and Mr. Solganick has no personal knowledge of any part of the planning process because he was not a part of it.

1 flows of 6.82 MGD within 10 years and total capacity requirements,
2 including contractually committed capacity, of 7.78 MGD within that
3 time frame. Additionally, the Project Narrative (Exhibit 1 to the
4 Application) states⁴:

5 The combined projected growth in these four
6 [MSG] townships would require 3,585,750 gpd
7 or over 1,475,000 gpd of additional sewage
8 capacity, which is 70% higher than the currently
9 allocated flows (2,110,398 gpd) and represents
10 nearly 50% of the proposed capacity of the
11 treatment plant.

- 12 • Although Mr. Solganick now contends that the Company should not
13 have relied upon the flow projections of the tributary municipalities,
14 in MSG's H2O Application Mr. Solganick's clients stated that "local
15 officials have a better understanding of the needs of the community"
16 than PAW (Exhibit 1 to the Application). Once again, as late as
17 February 2009, Mr. Solganick's clients took positions, which they
18 certified to be "true and correct," that directly contradict his testimony
19 in this case.
- 20 • As late as December 2009, West Brandywine Township requested
21 120,375 gallons per day (gpd) of **additional** treatment capacity. The
22 actions of Mr. Solganick's clients speak louder than his words.

23 III. RESPONSE TO MR. SOLGANICK

⁴ I am providing a copy of the key portions of the Application as PAW Exhibit DRK-2R and the entire Application as PAW Exhibit DRK-3R.

1 **5. Q. Please explain the basic responsibilities of the tributary**
2 **municipalities and the Company under Act 537 and Pa. DEP**
3 **regulations, as they pertain to the Coatesville wastewater system.**

4 A. Section 4(a) of Act 537 addresses “Official Plans” and provides:

5 Each municipality shall submit to the department
6 an officially adopted plan for sewage services for
7 areas within its jurisdiction within such
8 reasonable time as the department may prescribe,
9 and shall from time to time submit revisions of
10 such plan as may be required by rules and
11 regulations adopted hereunder or by order of the
12 department . . .

13 Pa. DEP has issued regulations under Act 537 that are set forth at 25 Pa
14 Code Chapter 71 (Administration of Sewage Facilities Planning
15 Program) and Chapter 94 (Municipal Wasteload Management).
16 Chapter 71 requires each municipality in the Commonwealth of
17 Pennsylvania to develop, revise, and implement an Official Sewage
18 Facility Plan that addresses the existing and future sewage disposal
19 needs of the municipality. Under Chapter 71, the tributary
20 municipalities of the Coatesville wastewater system are responsible for
21 projecting their sewage flow needs over five and ten-year future
22 planning intervals and identifying the appropriate means to meet those
23 future needs. These elements are incorporated in the tributary
24 municipalities’ respective Act 537 Official Plans (or added by updates
25 to existing plans), which must ultimately be approved by Pa. DEP.

1 Municipalities are solely responsible for Act 537 planning under
2 Chapter 71.

3 The Company's role in this process is limited to: (1) assisting the
4 various municipalities, to the extent they desire and request our
5 assistance, in developing or updating of their Act 537 Official Plans (2)
6 assembling the tributary municipalities' Act 537 Official Plans and
7 updates into a Regional Act 537 Official Plan for the Coatesville
8 wastewater system; and (3) securing municipal and Pa. DEP approval of
9 the Regional Plan.

10 As required by Chapter 94 of 25 Pa Code, the Company submits a
11 Municipal Wasteload Management Report (Chapter 94 Report) to Pa.
12 DEP on an annual basis. The purpose of the Chapter 94 Report is to
13 provide an annual review of sewage facilities to identify existing and
14 projected overload conditions within a sewage facility and ensure there
15 is adequate time to address operational and maintenance problems or to
16 plan and construct additions, as necessary.

17 The adequacy of sewage facilities is determined in large part by current
18 and projected sewage flows. A projected overload condition exists
19 when a Chapter 94 report shows, or Pa. DEP determines, that the
20 sewage facilities will, within five years, become hydraulically or
21 organically overloaded, based upon known development projects and
22 applicable municipal projections of sewage needs.

1 Under 25 Pa. Code § 94.22, if a Chapter 94 Report shows, or Pa. DEP
2 determines, that a facility or portion of a facility will be hydraulically
3 or organically overloaded, the holder of the permit for that facility
4 must: (1) submit a report or corrective action plan (“CAP”) that details
5 steps the permittee will take to prevent the overload; and (2) limit all
6 new connections and extensions based upon remaining available
7 capacity. A Connection Management Plan (CMP) is typically used to
8 limit future connections until the projected overload situation is
9 corrected by constructing additional capacity.

10 In the recent past, customer growth in the Coatesville service area
11 produce increasing flows to the wastewater treatment plant that
12 approached the plant’s permitted average annual flow capacity of 3.85
13 MGD. Chapter 94 Reports submitted by the City of Coatesville
14 Municipal Authority for 2000 and by the Company from 2001
15 identified a projected hydraulic overload condition for the wastewater
16 treatment plant and certain large conveyance facilities (trunk lines)
17 based on projected connections.

18 As part of the Company’s CAP for the projected hydraulic overload
19 condition in the Coatesville wastewater system and in accordance with
20 a Consent Order and Agreement (CO&A) with Pa. DEP dated
21 November 30, 2005, the Company agreed to: (1) limit customer
22 connections in accordance with a Pa. DEP-approved CMP so that
23 sewage flows would not exceed system capacity; (2) submit

1 applications for the necessary permits to expand the treatment plant; (3)
2 award contracts by specific dates for the construction of the expansion
3 of the wastewater treatment plant; and (4) complete construction of the
4 expanded wastewater treatment plant within 24 months of issuance of
5 all necessary permits.

6 In summary, in addition to the need to rebuild the plant because of its
7 age and condition, the Company was required by Pa. DEP to expand to
8 the capacity of the plant and, in so doing, to construct sufficient
9 capacity to eliminate the projected hydraulic overload.

10 **6. Q. What is PAWC's responsibility, as the provider of treatment**
11 **capacity, to have conveyance and treatment capacity available to**
12 **meet the tributary municipalities' needs?**

13 A. As required by Chapter 94 (Municipal Wasteload Management), the
14 Company signs Planning Modules for the "equivalent dwelling units"
15 (EDUs) in new developments. A new development cannot proceed
16 unless a Planning Module is executed for the EDUs in that
17 development. Signing a Planning Module certifies that the additional
18 flows those EDUs represent can be collected and can be conveyed to,
19 and treated by, the Company's Wastewater Treatment Plant in
20 compliance with regulatory permits. Signing also certifies that capacity
21 is available so that the projected new development will not create a
22 hydraulic or organic overload within Chapter 94's 5-year planning

1 horizon. In essence, at the time Planning Modules are signed for new
2 development, the Company is allocating capacity to serve new
3 customers projected to come on-line in the future. PAWC is obligated
4 to handle the future sewage flow that its tributary municipalities project
5 will be conveyed to, and treated at, the Company's Coatesville
6 Wastewater Treatment Plant based on development within their
7 boundaries.

8 **7. Q. Mr. Solganick contends the Company had focused on 7.0 MGD as**
9 **the size of the Coatesville Wastewater Treatment Plant in April**
10 **2003 before an adequate study had been conducted (MSG St. HS-1,**
11 **p. 9, line 3). Do you agree with this assertion?**

12 A. No. Mr. Solganick based his opinion on a "post-it" note he found in
13 Pa. DEP files dated April 22, 2003. However, contrary to Mr.
14 Solganick's speculation, in September 2004, the "Design Concept" that
15 the Company included in its request for proposals to engage an
16 engineering consultant for the design of the Coatesville Wastewater
17 Treatment Plant upgrade and expansion was based on 6.0 MGD of
18 wastewater capacity. As stated in the Design Concept:

19 This project will increase the capacity of the
20 wastewater facility from 3.85 MGD to 6.0 MGD.
21 PAW has prepared and submitted to Pa. DEP a
22 Connection Management Plan (CMP) which
23 details the projected new connections to the
24 system from 2004 to 2008. The projects are based
25 on the EDUs as submitted by the contributing
26 townships in PAW's 2003 Chapter 94 Report,

1 currently signed Planning Modules, and PAW and
2 developer estimates of build out. A summary of
3 the CMP pertaining to Act 537 and the wastewater
4 treatment plant is as follows:

- 5 • The CMP provides a 10-year projection of
6 connection plans with the starting year in 2004.
- 7 • The CMP shows connections and sewage flow
8 to exceed the 3.85 MGD permitted annual
9 average flow in 2008.
- 10 • The CMP projects connections to total 5.82
11 MGD average flow in 2014.

12 This Design Concept was made part of the design contract, dated
13 March 2005, that the Company awarded to Buchart Horn, Inc. at the
14 end of the competitive request-for-proposals process. (The Company
15 provided the entire contract to MSG in response to MSG Interrogatory
16 1-9.) It was not until mid-2005, after re-evaluating projected sewage
17 needs during the period that the plant design was being critiqued, that it
18 became apparent that 6 MGD of capacity would not be adequate.

19 The Company incorporated updated flow projections in Table IV-1 of
20 the September 2005 draft Regional Act 537 Plan (Exhibit DRK-4R),
21 which was distributed to the tributary municipalities and to Pa. DEP at
22 that time. Based on this table, the recommended wastewater treatment
23 plant capacity for a planning period extending to 2017 was 7.0 MGD.

24 **8. Q. Mr. Solganick suggests that the Company did not do adequate**
25 **planning to determine the size of the wastewater treatment plant**
26 **(MSG St. HS-1, p. 8, line 8) and did not do enough to try to confirm**

1 **the tributary municipalities' projections of how much capacity they**
2 **would need and when they would need it (MSG St. HS-1, p. 13, line**
3 **25). Please address those aspects of Mr. Solganick's testimony.**

4 A. *I do not agree with Mr. Solganick's assessment. As explained below,*
5 *extensive planning took place to determine the capacity of the*
6 *wastewater treatment plant. In September 2005, a draft Regional Act*
7 *537 Official Plan for the tributary municipalities was completed with*
8 *the assistance of URS Corporation. The draft was distributed to each*
9 *tributary municipality for review and approval. Prior to this submittal,*
10 *the Company was actively collecting documentation of the projections*
11 *of sewage needs from each tributary municipality. Copies of those*
12 *documents were also sent to the Pa. DEP, for information purposes,*
13 *because Pa. DEP cannot begin its official review until the*
14 *municipalities have completed their review and approval.*

15 *Although the regulations under Act 537 define sewage planning as*
16 *exclusively a municipal responsibility, the Regional Plan was*
17 *coordinated by PAW to help the tributary municipalities meet all of*
18 *their comprehensive Act 537 requirements. The draft Regional Plan*
19 *incorporated future wastewater service areas, which were developed in*
20 *coordination with the municipalities, and projected sewage needs,*
21 *based upon information provided by the municipalities through the*
22 *CMP process.*

1 The total projected flows to the wastewater treatment plant at the time
2 this draft was prepared totaled in excess of 8.0 MGD and, of that
3 amount, more than 5.6 MGD was needed within five years, or by 2010.
4 In fact, based upon information contained in the Company's 2005
5 annual Chapter 94 report to Pa. DEP and the January 2006 CMP, the
6 2005 annual flow plus the five-year projected post-expansion capacity
7 needs through 2010 (which reflected signed Planning Modules and
8 contracted capacity) was approximately 6 MGD. However, this
9 capacity requirement did **not** include then-pending Planning Modules
10 that had not yet been signed due to unavailable capacity at the
11 wastewater treatment plant nor did it reflect other capacity
12 requirements of the bulk tributary municipalities. Thus, if a 6.0 MGD
13 plant expansion had been constructed, neither the Company nor Pa.
14 DEP would have been able to approve any additional planning modules
15 for new development.

16 In accordance with the growth projections discussed above, the 2005
17 draft Regional Act 537 Official Plan proposed the construction of a 7.0
18 MGD wastewater treatment plant. That plant capacity was estimated to
19 be sufficient to meet municipal needs until approximately 2017.

20 However, because the projected capacity needs were actually somewhat
21 greater than 7.0 MGD, Pa. DEP stated on November 28, 2005 that "the
22 proposed allocation for the design year and contract capacity may not
23 exceed the proposed size of the wastewater treatment plant." In other

1 words, that caveat was included by Pa. DEP because it contemplated
2 that a 7.0 MGD plant could be capacity constrained **before** 2017. In
3 addition, the Company asked Pa. DEP to consider a proposed reduction
4 in I&I (Inflow/Infiltration) in future years as a means of closing the gap
5 between projected flows and proposed treatment capacity. This
6 proposal was unacceptable to Pa. DEP, which rejected it because: “I/I
7 removal cannot be counted upon.” In short, Pa. DEP was unwilling to
8 accept a *commitment for future action*.

9 Pa. DEP held a meeting with representatives of the tributary
10 municipalities on December 7, 2005, to which PAW and URS were
11 invited, to discuss Pa. DEP concerns about the Act 537 planning
12 process. That meeting was memorialized in a letter Pa. DEP sent to the
13 tributary municipalities dated December 20, 2005 (Exhibit DRK-5R).
14 The letter reiterated Pa. DEP’s determination that each tributary
15 municipality had to prepare its **own** individual Act 537 Plan, and Pa.
16 DEP would **not** accept planning prepared by or on behalf of the
17 Company: “Instead, the [plant] expansion must be based on the needs
18 analyses required from each municipality under Act 537.” In Pa. DEP’s
19 view, only by having each municipality responsible for its own Act 537
20 Official Plan would all local land use and growth decisions be properly
21 taken into account and sewage planning matched to each individual
22 municipality’s zoning and comprehensive plans. The individual
23 municipal plans would set forth, among other things, the specific areas

1 within the municipality to be served by the Company's expanded
2 wastewater treatment plant and future sewage needs of each such area
3 as evaluated under Pa. DEP regulations.

4 In summary, Pa. DEP made it clear that PAWC could not make
5 planning decisions for the municipalities; that each municipality would
6 have to prepare its own Act 537 Official Plan; and that PAWC would
7 be expected to use, and rely upon, those Official Plans in making its
8 application to Pa. DEP to expand the treatment plant. Thus, Pa. DEP's
9 directives directly contradict Mr. Solganick's opinion that PAW was in
10 a better position to assess the municipalities' needs than the
11 municipalities themselves.

12 The results of this early Act 537 planning and the resulting Pa. DEP
13 comments confirmed that increasing capacity to only 6.0 MGD as part
14 of the reconstruction of the Coatesville Wastewater Treatment Plant
15 would not be acceptable and Pa. DEP would not issue the necessary
16 permits on that basis. In fact, at the December 7, 2005 meeting, Pa.
17 DEP stated that, in its view, the plant should be in the 8.0 to 9.0 MGD
18 range. In addition, at the same meeting, the tributary municipalities
19 were questioning how they would be guaranteed their allocations of
20 plant capacity because of their concerns that a plant of 6.0 or 7.0 MGD
21 would not be sufficient to meet all of their needs. The municipalities'
22 concerns about the need to allocate potentially constrained capacity in
23 the new plant led to adopting a "first come first served" approach for

1 capacity allocation to direct (non-bulk) customers and contract
2 allocation for the bulk (MSG) tributary municipalities.

3 Beginning in January 2006, monthly meetings with municipal
4 representatives were held to discuss and coordinate wastewater issues,
5 including the progress and content of each individual municipal Act
6 537 plan. In accordance with Pa. DEP's determination, this was a
7 municipality-driven process. However, PAW sought and obtained
8 evidence to support the municipalities' plans and projections and
9 explored with the municipalities the bases for their plans and
10 projections. In short, PAW did its due diligence to assure that the
11 municipalities' plans and projections were based on the kind and
12 quality of evidence that the Pa. DEP demands as support for Act 537
13 Official Plans before it approves such plans. To reiterate, as Pa. DEP
14 clearly stated, the municipalities – not PAW – have the responsibility
15 and the sole authority to determine how their Official Plans are
16 prepared.

17 A revised Regional Act 537 Plan was completed in August 2006 and
18 distributed to each municipality in September 2006 for their review.
19 The revised Regional Act 537 Plan reflected all wastewater treatment
20 plant needs identified by those tributary municipalities that had
21 completed draft or final individual Act 537 Official Plans and
22 preliminary Act 537 estimates from the remaining municipalities. The
23 August 2006 draft Regional Plan reflected total municipal

1 determinations of future sewage needs to be served by the wastewater
2 treatment plant of approximately 8.4 MGD, with projected 5 and 10-
3 year flows of approximately 5.8 and 6.8 MGD respectively. A 7.0
4 MGD wastewater treatment plant was again indicated, which would be
5 sufficient to meet municipal projections for a period of approximately
6 10 years from the date of the draft.

7 The Chapter 71 municipal review process was initiated once the
8 Regional Plan had been distributed. Until early 2009, the regional Act
9 537 planning effort was subject to ongoing amendments to address
10 municipal planning commission comments, Chester County agency
11 comments, additional technical considerations related to the PAWC
12 collection and conveyance system, discussions at monthly meetings
13 with the tributary municipalities' representatives, and, most
14 significantly, new and updated future sewage needs determinations by
15 the tributary municipalities themselves.

16 The final Regional Act 537 Official Plan for the tributary
17 municipalities was completed in March 2009. This Plan was
18 distributed to all municipal governing bodies for review in April 2009.
19 Future projections of municipal sewage needs to be served by an
20 expanded PAWC wastewater treatment plant were included as provided
21 by each municipality in their completed or pending individual Act 537
22 planning. It should be noted that before receiving the final Regional
23 Act 537 Plan, the governing bodies of the Townships of Caln, Valley,

1 and West Sadsbury had already adopted individual municipal Act 537
2 Official Plans that were consistent with the Regional Act 537 Plan.

3 In accordance with the municipal determination, the Regional Act 537
4 Plan projected wastewater treatment plant flows of over 6.4 MGD
5 within 5 years, with a 10-year total flow of over 7.4 MGD and an
6 ultimate future flow of over 8.7 MGD. Constructing a 7.0 MGD
7 wastewater treatment plant was the plan selected to serve these needs.
8 A wastewater treatment plant insufficient to accommodate the
9 projected flows for 5 years would lead to mandatory corrective action
10 in accordance with Chapter 94 regulations. The 7.0 MGD wastewater
11 treatment plant indicated in the tributary municipalities' final Act 537
12 Official Plan would be operating at more than 90% of its capacity
13 within this critical time period, based upon the future flow projections
14 determined by the municipalities. Constructing a smaller wastewater
15 treatment plant would, accordingly, have not been feasible from a
16 regulatory standpoint.

17 The final tributary municipality Regional Act 537 Official Plan was
18 reviewed by each municipality, and they provided limited comments.
19 Between April 2009 and July 2009, each municipality's governing
20 body passes a resolution formally adopting this Regional Act 537 Plan.
21 Pa. DEP approved the Regional Act 537 Official Plan by its letter dated
22 October 21, 2009. Pa. DEP further clarified its approval of the
23 Regional Act 537 Plan by re-issuing its approval letter dated November

1 19, 2009. Pa. DEP, by granting Act 537 approval for a 7.0 MGD
2 wastewater treatment plant, found that the Regional Act 537 Official
3 Plan satisfactorily documented the projected sewage needs of the
4 tributary municipalities.

5 **9. Q. Did each municipality need to approve both their individual Act**
6 **537 Plans and the Regional Act 537 Plan?**

7 A. Yes. Pa. DEP required that each plan take formal action by its
8 governing body to approve both their individual Act 537 Official Plan
9 and the Regional Act 537 Official Plan.

10 **10. Q. Can a municipality choose any capacity amount it may “want”**
11 **without regard to whether there is a “need” for it?**

12 A. Certainly not. Pa. DEP requires that each municipality provide
13 satisfactory documentation to Pa. DEP to justify the capacity needed to
14 provide sewer service to new land development areas and/or increases
15 in flow for the existing sewer service area. Chapter IV of the Regional
16 Act 537 Plan entitled “Existing and Projected Sewage Needs,” provides
17 specific detailed information on planned development activity (number
18 and timing of EDU connections) for each tributary municipality, which
19 was relied upon when projecting future sewage needs (Exhibit DRK-
20 6R). There were no “competing” developments across neighboring
21 municipalities as Mr. Solganick suggests (MSG St. HS-1, p. 11, line
22 20).

1 **11. Q. Did the tributary municipalities indicate that they needed more**
2 **sewer capacity?**

3 A. Yes. West Brandywine and Valley Township, in particular, indicated
4 that they needed additional capacity, but others did as well. As I
5 previously explained, in the Company’s last Coatesville wastewater
6 rate case, at Docket No. R-2008-232689, Ronald A. Rambo, Jr.,
7 Township Manager of West Brandywine Township, submitted written
8 direct testimony stating that the Township had delayed development
9 because needed sewer capacity was not available. Mr. Rambo also
10 stated: “The three other bulk users, Caln Township Authority, Sadsbury
11 Township and Valley Township, are in need of additional service.”
12 (Mr. Rambo’s testimony is attached as Exhibit DRK-7R).

13 **12. Q. Did any tributary municipality object to the size of the proposed**
14 **plant?**

15 A. No. Sizing was based upon their own municipal flow projections
16 within a ten-year planning horizon beginning in 2007. In fact, the
17 projected ten-year flow total, as depicted in Table IV-1 of the Regional
18 Act 537 Plan, documented a projected ten-year flow total of 7.47
19 MGD, or somewhat more than the recommended 7.0 MGD plant
20 capacity. The ultimate year flow projection was 8.7 MGD, which
21 would be accommodated with a future phase of plant expansion.

1 13. Q. **Mr. Solganick stated that the “process focused on wants not needs”**
2 **and the Company should have engaged in an independent analysis**
3 **of municipal demands. Do you agree?**

4 A. No. Pa. DEP indicated that the Company cannot make planning
5 decisions for the municipalities; that each municipality would have to
6 prepare its own Act 537 Plan; that the municipalities are in a better
7 position than the Company to determine those needs; and that the
8 Company would be expected to plan and design the plant expansion to
9 meet those needs.

10 14. Q. **Do you believe the Company could have, or should have “second-**
11 **guessed” what the tributary municipalities had adopted?**

12 A. No. First, as I explained, Pa. DEP made it clear that it expected the
13 municipalities to be the ultimate decision maker on what their needs
14 should be. Second, we believed – reasonably, in my view – that the
15 municipalities would provide the Company with accurate and truthful
16 information. Moreover, we could not change projected treatment
17 capacity needs provided by the tributary municipalities without their
18 concurrence.

19 15. Q. **In the greater Coatesville area, did tributary municipalities know**
20 **what other tributary municipalities sought in their individual Act**
21 **537 Plans?**

1 A. Yes. As part of adopting their individual Act 537 Plans, each tributary
2 municipality adopted the Regional Act 537 Official Plan that contained
3 individual amounts for each tributary municipality.

4 **16. Q. How involved were the tributary municipalities in the planning**
5 **process?**

6 A. There was significant involvement by the tributary municipalities over
7 the last five years. Over that period, there was extensive
8 communication and correspondence among the various municipalities,
9 local planning commissions, Chester County agencies, Pa. DEP, URS,
10 and the Company. As I explained before, monthly meetings were held
11 at the West Brandywine Township Municipal Building to facilitate
12 communication and coordination efforts. The Company attended each
13 of these meetings from December 2005 through the present.

14 The CMP prepared by the Company and provided quarterly to Pa. DEP
15 in compliance with the November 2005 CO&A was discussed at these
16 meetings. The CMP detailed the specific number of EDUs for each
17 development proposed in each tributary municipality over a five-year
18 period and beyond. The Company reviewed each of these
19 developments with municipal representatives and the developers
20 themselves to collect information on timing and size of each
21 development. The EDUs on the CMP related to **specific** developments.
22 Those EDUs were not based on projections that open space could be

1 developed at some point in the future, but rather reflected tracts of land
2 that the municipalities already had in various stages of land
3 development planning. In each such instance, the developer and the
4 municipality where the development was located demanded that the
5 development be shown on the CMP as moving forward.

6 **17. Q. Were the municipalities amenable to changes being made or**
7 **proposed by PAW?**

8 A. No. In 2005, when PAW tried to change the CMP by spreading the
9 EDUs of some developments over a longer period of time (that is,
10 PAWC tried to do something Mr. Solganick claims it could have and
11 should have done in the capacity planning process), it met with
12 immediate resistant from the municipalities. Valley Township sent a
13 letter dated July 20, 2005 stating that the “CMP is not acceptable and
14 must be revised” and “the schedule cannot be revised.” The majority of
15 the other municipalities also objected to any changes not specifically
16 requested by them. From that point forward, PAWC made changes to
17 the CMP only at the direction of the municipalities. Therefore, if land
18 development plans were added, removed or delayed, each municipality
19 would request the appropriate change to the CMP. Consequently, there
20 is simply no basis for Mr. Solganick’s contention that the Company
21 could have departed from the sewage needs planning that the
22 municipalities were performing.

1 18. Q. **Did the municipalities reduce their projections of future growth**
2 **and associated sewage flows after 2005?**

3 A. Each municipality maintained aggressive growth projections after
4 2005. West Brandywine Township, which had an annual average flow
5 of 139,974 gpd and also had a contract with PAW for 345,000 gpd,
6 requested (and, because of its own growth projections, was required by
7 DEP to obtain) an additional 188,100 gpd allocation in 2008. On
8 December 31, 2009, West Brandywine requested an additional 120,375
9 gpd allocation. This occurred well after the downturn in the economy.
10 Nonetheless, the Township demonstrated a “need,” not a “want,” for
11 capacity that reflects its projection of an aggressive growth rate in the
12 Township.

13 Additionally, at a meeting of the tributary municipalities on November
14 16, 2009, Mr. James MacCombie, representing West Brandywine
15 Township, Sadsbury Township, and East Fallowfield Township,
16 predicted “rapid initial growth in the PAWC facility flows in the near
17 term following the wastewater treatment plant expansion.” His
18 statement was made well after the downturn in the economy but yet
19 indicated a clear need, not want, for capacity as detailed in the Act 537
20 plans of his clients.

21 19. Q. **Mr. Solganick also notes that 2004 was the “peak” for housing**
22 **construction in Chester County and suggests that that date might**

1 **have had some significance, at the time, for capacity planning**
2 **(MSG St. HS-2, p. 6). At the time could anyone have known that**
3 **housing starts had reached a “peak” in calendar year 2004?**

4 A. No. And, when asked, Mr. Solganick agreed (MSG Response to
5 PAWC (MSG)-I-32): “Mr. Solganick would not expect that a peak that
6 occurred in 2004 would normally be recognized contemporaneously.”
7 In light of that, there is no practical significance to the various “peaks”
8 that Mr. Solganick identified in the time-line set forth in his testimony
9 (MSG St. HS-1, pp. 6-7).

10 **20. Q. Did any tributary municipality indicate that 2004 was a peak in the**
11 **housing market?**

12 A. No. At all times, members of the MSG and the other tributary
13 municipalities continued to forecast growth in their areas.

14 **21. Q. Why didn’t the Company slow-down the progress of the project in**
15 **response to the downturn in the housing market?**

16 A. First, the tributary municipalities never acknowledged any downturn in
17 the market. They continued to demand increased sewer capacity. As
18 previously stated, the 7.0 MGD plant capacity satisfactorily
19 accommodates growth in the tributary municipalities for a period of
20 between five and ten years. Responsible planning would be based on
21 sound long-term demographic forecasting.

1 Additionally, the Company had completed design and permitting for
2 Coatesville Wastewater Treatment Plant and entered into a construction
3 contract with Allan A. Myers on April 14, 2008 for the plant upgrade
4 and expansion, prior to the onset of the major economic downturn.
5 Pursuant to the CO&A executed on November 30, 2005, the Company
6 was mandated to complete construction of the expanded plant within 24
7 months of issuance of all permits.

8 22. **Q. Mr. Solganick contends that the Company did not track the**
9 **housing boom in the years 2006-08 and adjust the timing of the**
10 **project accordingly (MSG St. HS-1, p. 24). Do you agree?**

11 A. No. We went back to the municipalities, and they confirmed their
12 demands. In fact, the municipalities, including the MSG members,
13 continued to demand additional capacity. For example, in his 2008
14 testimony in the Company's last Coatesville case, Mr. Rambo stated
15 that his municipality had requested an additional 520,220 gallons per
16 day of capacity over the next ten years. Mr. Rambo also stated that his
17 township had proposals to establish over 1,000 additional residential
18 dwelling units and "there are other existing and proposed developments
19 that we anticipate, based on very strong indications of present or future
20 need."

1 turn reflected their expectation of future growth and the tax and
2 economic benefits they expected to obtain from that growth. Finally,
3 the Coatesville Wastewater Treatment Plant project included both a
4 capacity expansion and upgrade due to the poor physical condition and
5 process limitations of the pre-construction plant facilities and the
6 inability of those facilities to meet future effluent standards. Pa. DEP
7 would not have approved this upgrade if future capacity needs were not
8 adequately accommodated in a plant expansion.

9 **25. Q. Do you agree with Mr. Ambrose that the Coatesville Wastewater**
10 **Treatment Plant has excess capacity?**

11 A. No, for all the reasons I previously explained. In addition, Mr.
12 Ambrose proposes an unreasonable standard. Any large, long lead-
13 time addition to capacity – whether a wastewater or water treatment
14 facility – must be sized to meet current demands, reasonably projected
15 future requirements and a reasonable reserve margin. Because capacity
16 is not infinitely scale-able and because design, engineering, equipment
17 acquisition and many installation costs do not vary in direct proportion
18 to size (i.e., there are scale economies in the construction of major
19 projects), it is generally more economical to build a large, long-lead-
20 time facility to meet both current and reasonably projected needs than
21 to try to build only enough capacity to just meet the existing demands
22 at the time a plant is placed in service. A “just in time” approach to
23 capacity additions would not be economical; certainly would not be

1 feasible; and would likely create substantial risks of non-compliance
2 with applicable laws and regulations. Furthermore, as to wastewater,
3 treatment capacity is dictated by Act 537 requirements, as I explained.
4 Each municipality must prepare Act 537 plans that comply with
5 applicable legal requirements and, in that regard, must demonstrate
6 their ability to meet sewage treatment demands over the Act 537
7 planning horizon. The projected demands that were reviewed as a basis
8 for sizing the Coatesville treatment plant track the Act 537 planning
9 horizon. The capacity constructed by the Company is, for that reason,
10 fully needed currently and, therefore, the benefits accrue to the
11 residents of each of the tributary municipalities currently. Additionally,
12 under the scheme of environmental regulation in Pennsylvania, the
13 availability of sufficient wastewater treatment capacity consistent with
14 Act 537 requirements is a pre-requisite to approval of Planning
15 Modules in each municipality. Since Planning Modules precede
16 construction and use, treatment capacity has to be in place before
17 development can commence. This is a significant difference between
18 the planning and capacity regulation requirements for wastewater
19 facilities and those for water facilities.

20 **26. Q. Have you reviewed the calculation of Mr. Ambrose's proposed**
21 **adjustment as set forth in Revised Exhibit Nos. RDA-1 and RDA-2**
22 **that accompanied CBA Statement No. RDA-1 Supplemental?**

23 A. I have.

1 **27. Q. Have you identified any computational errors in those**
2 **calculations?**

3 A. I have. First let me reiterate that there is no basis for any “excess
4 capacity” and I believe that no adjustment should be made. I have,
5 however, reviewed Mr. Ambrose’s calculations and found a number of
6 errors. I will begin with Exhibit No. RDA-1 Revised.

7 First, the starting point should be the five-year average adjusted flow
8 treated at the plant, which is set forth in the 2009 Chapter 94 report
9 filed by the Company with Pa. DEP. That figure is 3,647,164 gpd and,
10 therefore, higher than the figure of 3,439,040 gpd used by Mr.
11 Ambrose.

12 Second, the capacity of the new plant is 7.0 MGD, not 7.4 MGD as
13 used by Mr. Ambrose on Exhibit No. RDA-1 Revised. Consequently,
14 he is treating as “excess” 400,000 gpd of capacity that does not even
15 exist.

16 As a result of the two errors noted above, the “Change” total (Column 3
17 of Exhibit No. RDA-1 Revised) should be 3,352,836 gpd not 4,033,377
18 gpd that was used. Additionally, dividing by 225 gpd per EDU, the
19 total EDUs in Column 4 are 14,901 not 17,926 that Mr. Ambrose used.

20 Turning to Exhibit RDA-2 Revised, there is an error in the column
21 headed “\$2,000 Amount” which assumes that all EDUs in excess of the

1 five-year average flow will be charged a Capacity Reservation Fee of
2 \$2,000. That is not correct. Of the total EDUs above the five-year
3 average, 4,354 have already been paid (at \$525 per EDU) and used to
4 reduce revenue requirement. Therefore, no further deduction should be
5 made, and those EDUs should not be shown as producing future cash
6 receipts. Additionally, 5,782 EDUs have been reserved at the \$525 rate
7 such that, when they are paid, they will be at \$525 per EDU, not \$2,000
8 per EDU. Only the remaining 4,765 EDUs will be charged the \$2,000
9 Capacity Reservation Fee approved in the Company's last Coatesville
10 case.

11 **28. Q. Has an exhibit been prepared showing the how CBA Exhibit No.**
12 **RDA-1 Revised changes if the errors you identified are corrected?**

13 A. Yes, I have asked John R. Cox to prepare an exhibit that reproduces
14 Mr. Ambrose's calculations with changes to correct the errors I
15 identified above. That exhibit, which is jointly being jointly sponsored
16 with Mr. Cox, is provided as Exhibit DRK-8R. As shown on Exhibit
17 DRK-8R, with the corrections noted above, Mr. Ambrose's proposed
18 adjustment would be \$305,347 and not \$1,006,772 as set forth on page
19 2 of CBA Statement No. RDA-1 Supplemental.

20 V. CONCLUSION

21 **29. Q. Does this conclude your testimony?**

22 A. Yes it does.

**EXHIBITS ACCOMPANYING THE
REBUTTAL TESTIMONY OF DAVID R. KAUFMAN**

EXHIBIT DRK - 1R

RESOLUTION 2009-08
RESOLUTION OF THE COMMISSIONERS OF CALN TOWNSHIP, CHESTER COUNTY,
PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, The URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for sewage facilities to serve a portion Caln Township, and

WHEREAS, The Plan selects the alternative of expanding the existing PAWC stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities, and

WHEREAS, The Plan shall provide for a Caln Township capacity allocation in the expanded PAWC facilities consistent with the current executed agreements between PAWC and Caln Township, and include Caln Township's total contracted flow of 800,000 gpd in the proposed 7.0 mgd Wastewater Treatment Plant, and

WHEREAS, The Plan shall provide projected user fees by municipality to enable Caln Township to state the financial impacts of implementing the Plan to its residents, and

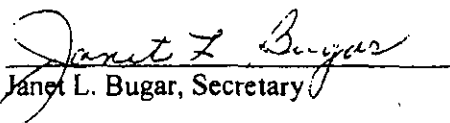
WHEREAS, Caln Township finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Commissioners of Caln Township hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the Township, the above referenced Plan. The Township will ensure a complete and timely implementation of said plan by PAWC as required by law (Section 5, Pennsylvania Sewage Facilities Act, as amended).

I, Janet L. Bugar Secretary, Caln Township Board of Commissioners hereby certify that the foregoing is a true copy of the Township's Resolution No. 2009-08 adopted April 30, 2009.

AUTHORIZED SIGNATURE

TOWNSHIP SEAL


Janet L. Bugar, Secretary



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URS CORPORATION

RESOLUTION No. 2009-13

A RESOLUTION OF THE COUNCIL OF THE CITY OF COATESVILLE, CHESTER COUNTY, PENNSYLVANIA, TO ADOPT ACT 537 SEWAGE FACILITIES PLAN FOR THE TRIBUTARY MUNICIPALITIES OF THE PENNSYLVANIA AMERICAN COMPANY

WHEREAS, the City of Coatesville is a Home Rule Charter Third Class City in the Commonwealth of Pennsylvania; and

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act" as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality; and

WHEREAS, The URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for sewage facilities to serve the City of Coatesville, and

WHEREAS, The Plan accurately represents the projected future sewage needs of the City of Coatesville, and

WHEREAS, The Plan selects the alternative of expanding the existing PAWC stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities, and

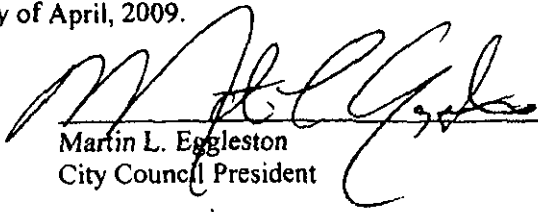
WHEREAS, The Plan provides for an undefined City of Coatesville capacity in the expanded PAWC facilities; projects will be allowed to connect within the available facilities capacity at the time of any capacity request submitted to PAWC for signature, and

WHEREAS, The City of Coatesville finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Council of the City of Coatesville hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the City, the above referenced Plan. The City will ensure a complete and timely implementation of said plan by PAWC as required by law (Section 5, Pennsylvania Sewage Facilities Act as amended).

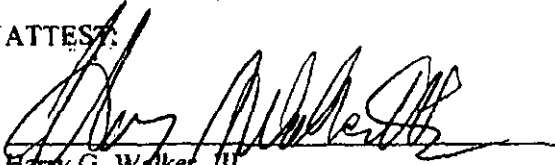
IN WITNESS THEREOF, the Council of the City of Coatesville hereby authorizes the execution and attestation of this resolution.

RESOLVED AND ENACTED, this 13th day of April, 2009.



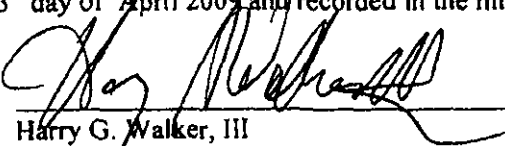
Martin L. Eggleston
City Council President

ATTEST:



Harry G. Walker, III
City Manager

I HEREBY CERTIFY that the foregoing is a true and correct copy of the said Resolution duly adopted at a regular meeting of City Council held on the 13th day of April 2009 and recorded in the minutes as such.



Harry G. Walker, III
City Manager

RESOLUTION 2009-09

RESOLUTION OF THE SUPERVISORS OF EAST FALLOWFIELD TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, The URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for sewage facilities to serve a portion of East Fallowfield Township, and

WHEREAS, The Plan selects the alternative of expanding the existing PAWC owned stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities, and

WHEREAS, The Plan provides for an undefined East Fallowfield Township capacity allocation in the expanded PAWC facilities; projects within a Department approved East Fallowfield Township Act 537 plan public sewer service area will be allocated capacity in the PAWC sewerage facilities as is available at the time of any capacity request submitted to PAWC for signature, and

WHEREAS, East Fallowfield Township finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of East Fallowfield Township hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the Township, the above referenced Plan. The Township will ensure a complete and timely implementation of said plan by PAWC as required by law (Section 5, Pennsylvania Sewage Facilities Act, as amended).

I, Genise Miller, Secretary, Board of Supervisors of East Fallowfield Township, hereby certify that the foregoing is a true copy of the Township's Resolution No. 2009-09, adopted June 23, 2009

George Broadbent, Chairman

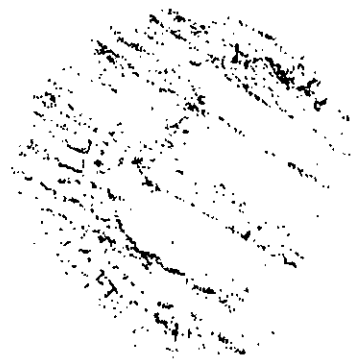


TOWNSHIP SEAL

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RESOLUTION NO 2009- (

**HIGHLAND TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA**

**A RESOLUTION OF THE TOWNSHIP OF HIGHLAND,
COUNTY OF CHESTER, COMMONWEALTH OF PENNSYLVANIA
PURSUANT TO SECTION 5 OF THE PENNSYLVANIA SEWAGE FACILITIES
ACT, AS IMPLEMENTED BY CHAPTER 71 OF TITLE 25 OF THE
PENNSYLVANIA CODE, AMENDING THE TOWNSHIP'S OFFICIAL SEWAGE
FACILITIES PLAN**

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires municipalities to adopt Official Sewage Facilities Plans to provide sewage services adequate to prevent contamination of waters and/or environmental health hazards from sewage wastes and to revise said plans whenever necessary to meet the sewage disposal needs of the municipality; and

WHEREAS, the URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an ACT 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which, among other things, provides for sewage facilities to serve a portion of Highland Township; and

WHEREAS, The Plan selects the alternative of expanding the existing PAWC owned stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities; and

WHEREAS, The Plan provides for an undefined Highland Township capacity allocation in the expanded PAWC facilities and projects (within a Department-approved Highland Township

Act 537 Plan) that a public sewer service area in Highland Township will be allocated capacity in the PAWC sewerage facilities as is available at the time any capacity request is submitted to PAWC for signature; and

WHEREAS, Highland Township finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a township comprehensive program of pollution control and water quality management.

NOW, THEREFORE, IT HEREBY IS RESOLVED AND ENACTED by the Board of Supervisors of the Township of Highland, County of Chester, Commonwealth of Pennsylvania as follows:

Section 1. That the Supervisors of Highland Township resolve to and hereby submit to the Department of Environmental Protection for its approval as a revision to its existing "Official Plan of the Township" the above referenced Plan.

Section 2. By adopting this Resolution, this Board will ensure, in so far as reasonably possible, a complete and timely implementation of said Plan by PAWC as required by law (section 5, Pennsylvania Sewage Facilities Act, as amended).

Section 3. The appropriate officer of the Board of Supervisors of Highland Township: namely, Thomas Scott, Chairman of the Board, is authorized to provide notification of the adoption of this Resolution to the Department and to take such other action as may be necessary or appropriate to implement the purposes of this Resolution.


ADOPTED by the Board of Supervisors of the Township of Highland, this 12th day of May 2009.

ATTEST: (SEAL)


SECRETARY


THOMAS SCOTT, Chairman


W. BOULTAN ALEXANDER, Supervisor


RICHARD ABBOTT, Supervisor

CERTIFICATION

I, Pat Montgomery, Secretary of Highland Township, hereby certify that the foregoing is a true copy of Resolution No. 2009- which was duly adopted and enacted on May 12, 2009, by the Board of Supervisors of Highland Township.


Pat Montgomery, Secretary

**RESOLUTION 2009-04
PARKESBURG BOROUGH
CHESTER COUNTY, PENNSYLVANIA**

**A RESOLUTION OF THE COUNCIL OF THE BOROUGH OF
PARKESBURG, CHESTER COUNTY, PENNSYLVANIA, ADOPTING AND
SUBMITTING TO THE DEPARTMENT OF ENVIRONMENTAL
PROTECTION FOR APPROVAL, THE REVISION TO THE OFFICIAL
SEWAGE FACILITIES PLAN**

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to review said plan whenever it is necessary to meet the sewage disposal needs of the municipality; and

WHEREAS, the URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for sewage facilities to serve the Borough of Parkesburg; and

WHEREAS, the Plan accurately represents the projected future sewage needs of the Borough of Parkesburg; and

WHEREAS, the Plan selects the alternative of expanding the existing PAWC owned stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities; and

WHEREAS, the Plan provides for an undefined Borough of Parkesburg capacity in the expanded PAWC facilities; projects will be allowed to connect within the available facilities capacity at the time of any capacity request submitted to PAWC for signature; and

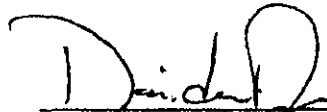
WHEREAS, the Borough of Parkesburg finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

WHEREAS, the Borough of Parkesburg previously sold its sewer system to the City of Coatesville Authority, predecessor to Pennsylvania American Water Company, subject to the express understanding between the parties that at all times the Borough of Parkesburg would not be restricted from making connections to the public sewer system.

NOW, THEREFORE, BE IT RESOLVED that the Council of the Borough of Parkesburg hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the Borough the above referenced Plan, subject to the understanding that the Borough of Parkesburg shall not be restricted from making connections to the public sewer system for the needs of its property owners, unless there is a restriction or moratorium imposed in which case the Borough shall be entitled to highest priority with respect to its connection needs. The Borough will ensure a complete and timely implementation of said plan by PAWC as required by law (Section 5, Pennsylvania Sewage Facilities Act, as amended).


ADOPTED this 6th day of June, 2009.

BOROUGH OF PARKESBURG



DAVID W. P. JONES, President

ATTEST:



WENDY KEEGAN, Borough Secretary



2009-03

RESOLUTION OF THE SUPERVISORS OF SADBURY TOWNSHIP, CHESTER COUNTY,
PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, The URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for a portion of the sewage facilities to serve Sadsbury Township, and

WHEREAS, The Plan selects the alternative of expanding the existing PAWC owned stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities, and

WHEREAS, The Plan provides for a Sadsbury Township capacity allocation in the expanded PAWC facilities consistent with the current executed agreement between Sadsbury Township and PAWC, and

WHEREAS, Sadsbury Township finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of Sadsbury Township hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the Township, the above referenced Plan. The Township will ensure a complete and timely implementation of said plan by PAWC as required by law (Section 5, Pennsylvania Sewage Facilities Act, as amended).

I, Lisa Meyer, Secretary, Board of Supervisors of Sadsbury Township, hereby certify that the foregoing is a true copy of the Township's Resolution No. 2009-03, adopted June 2, 2009.

AUTHORIZED SIGNATURE

Lisa Meyer

TOWNSHIP SEAL



RESOLUTION OF THE SUPERVISORS OF VALLEY TOWNSHIP, CHESTER COUNTY,
PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, The URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for a portion of the sewage facilities to serve Valley Township, and

WHEREAS, The Plan selects the alternative of expanding the existing PAWC owned stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities, and

WHEREAS, The Plan provides for a Valley Township capacity allocation in the expanded PAWC facilities consistent with the current executed agreement between Valley Township and PAWC, and

WHEREAS, Valley Township finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of Valley Township hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the Township, the above referenced Plan. The Township will ensure a complete and timely implementation of said plan by PAWC as required by law (Section 5, Pennsylvania Sewage Facilities Act, as amended).

I, KAREN E. CHANDLER, Secretary, Board of Supervisors of Valley Township, hereby certify that the foregoing is a true copy of the Township's Resolution No. 2009-09, adopted APRIL 7, 2009.

AUTHORIZED SIGNATURE

TOWNSHIP SEAL

Patricia L. Spector

Walter J. Spector
Edward Spector

West Brandywine Township

Board Of Supervisors

Josef G. Obernier, Sr., *Chairperson*

Thomas J. McCaffrey, *Vice-Chairperson*

Carl S. Lindborg, *Member*

Ronald A. Rambo, Jr., *Township Manager*
Secretary-Treasurer

TOWNSHIP OF WEST BRANDYWINE CHESTER COUNTY, PA RESOLUTION #03-2009

RESOLUTION OF THE SUPERVISORS OF WEST BRANDYWINE TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, The URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for a portion of the sewage facilities to serve West Brandywine Township, and

WHEREAS, The Plan selects the alternative of expanding the existing PAWC owned stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities, and


WHEREAS, The Plan provides for a West Brandywine Township capacity allocation in the expanded PAWC facilities consistent with the current executed agreement between West Brandywine Township and PAWC, and

WHEREAS, The West Brandywine Township finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of West Brandywine Township hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the Township, the above referenced Plan. The Township will ensure a complete and timely implementation of said plan by PAWC as required by law (Section 5, Pennsylvania Sewage Facilities Act, as amended).

I, Ronald A. Rambo, Jr., Secretary, Board of Supervisors of West Brandywine Township, hereby certify that the foregoing is a true copy of the Township's Resolution #02-2009, adopted May 7, 2009.

ATTEST:



Ronald A. Rambo, Jr.
Manager/Secretary/Treasurer

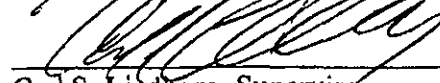
**WEST BRANDYWINE TOWNSHIP
BOARD OF SUPERVISORS**



Josef G. Obernier, Sr., Chairman



Thomas J. McCaffrey, Vice-Chairman



Carl S. Lindborg, Supervisor

RESOLUTION OF THE SUPERVISORS OF WEST CALN TOWNSHIP, CHESTER COUNTY,
PENNSYLVANIA (hereinafter "the municipality").

WHEREAS, Section 5 of the Act of January 24, 1966, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act," as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires the municipality to adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, The URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Tributary Municipalities of the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for sewage facilities to serve a portion of West Caln Township, and

WHEREAS, The Plan selects the alternative of expanding the existing PAWC owned stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and commensurate PAWC owned collection and conveyance system improvements as a means of providing for the sewage disposal needs of the tributary municipalities, and

WHEREAS, The Plan provides for an undefined West Caln Township capacity allocation in the expanded PAWC facilities; projects within a Department approved West Caln Township Act 537 plan public sewer service area will be allocated capacity in the PAWC sewerage facilities as is available at the time of any capacity request submitted to PAWC for signature, and

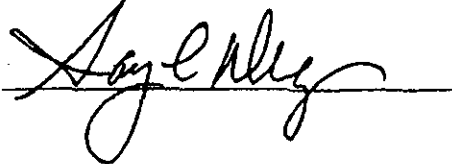
WHEREAS, West Caln Township finds that the Plan described above conforms to applicable zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

NOW, THEREFORE, BE IT RESOLVED that the Supervisors of West Caln Township hereby adopt and submit to the Department of Environmental Protection for its approval as a revision to the "Official Plan" of the Township, the above referenced Plan. The Township will ensure a complete and timely implementation of said plan by PAWC as required by law (Section 5, Pennsylvania Sewage Facilities Act, as amended).

I, GARY L. DUNLAP, Secretary, Board of Supervisors of West Caln Township, hereby certify that the foregoing is a true copy of the Township's Resolution No. 26-08, adopted MONDAY APRIL 13, 2009.

AUTHORIZED SIGNATURE

TOWNSHIP SEAL



WEST SADBURY TOWNSHIP
BOARD OF SUPERVISORS

RESOLUTION NO. 2009-05

RESOLUTION OF THE BOARD OF SUPERVISORS OF WEST SADBURY
TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA (hereinafter "the Township").

WHEREAS, Section 5 of the Act of January 24, 1996, P.L. 1535, No. 537, known as the "Pennsylvania Sewage Facilities Act", as amended, and the Rules and Regulations of the Department of Environmental Protection (Department) adopted thereunder, Chapter 71 of Title 25 of the Pennsylvania Code, requires that municipalities adopt an Official Sewage Facilities Plan providing for sewage services adequate to prevent contamination of waters and/or environmental health hazards with sewage wastes, and to revise said plan whenever it is necessary to meet the sewage disposal needs of the municipality, and

WHEREAS, the URS Corporation, on behalf of the Pennsylvania American Water Company (PAWC), has prepared an Act 537 Sewage Facilities Plan Update (the Plan) for the Pennsylvania American Water Company, dated August 2006 and revised March 2009, which provides for sewage facilities to serve a portion of the Township, and

WHEREAS, the Plan incorporates data, mapping and other information contained in the West Sadsbury Township Sewage Facilities Base Plan 2007 Update (the "West Sadsbury Township Plan"); and

WHEREAS the Department has conditionally approved the West Sadsbury Township Plan by letter dated February 8, 2008, which states, in pertinent part, "we will release the approval of the Township's plan, concurrently with our approval of the regional plan."; and

WHEREAS, the selected alternative identified in the Plan is expansion of the existing PAWC owned stream discharge wastewater treatment plant utilizing oxidation ditch technology to achieve a treatment capacity of seven (7) million gallons per day annual average daily flow and making improvements to identified sections of the PAWC owned collection and conveyance system as the means of providing for the sewage disposal needs of the PAWC tributary municipalities, and

WHEREAS, the Plan provides capacity in the expanded PAWC sewerage facilities to meet the needs identified in the West Sadsbury Township Plan and individual projects will be allocated such capacity in the PAWC sewerage facilities as the appropriate sewage facilities planning modules and exemption requests are submitted to PAWC for processing, and

WHEREAS, the Township finds that the Plan described above conforms to applicable Township zoning, subdivision, other municipal ordinances and plans and to a comprehensive program of pollution control and water quality management.

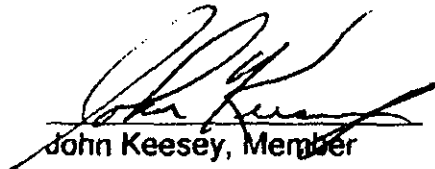
NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of West Sadsbury Township that the Plan be and hereby is approved as a supplement to the West Sadsbury Township Plan and for submission to the Department for its approval. West Sadsbury Township hereby assures the Department of the complete and timely implementation of said plan, with respect to only those elements within the purview of West Sadsbury Township, as required by law (Section 5, Pennsylvania Sewage Facilities Act, as amended).

Dated: 5-12-09

West Sadsbury Township
Board of Supervisors


James Landis, Chairman


Donald Markward, Member

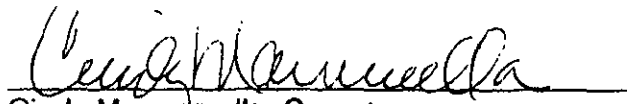

John Keeseey, Member

Attest:


Cindy Mammarella, Secretary

I, Cindy Mammarella, Secretary, West Sadsbury Township Board of Supervisors hereby certify that the foregoing is a true copy of West Sadsbury Township Resolution No. 2009-05, adopted May 12, 2009.

AUTHORIZED SIGNATURE


Cindy Mammarella, Secretary

TOWNSHIP SEAL



April 30, 2009

EXHIBIT DRK - 2R



COMMUNITY AND ECONOMIC DEVELOPMENT
Single Application for Assistance

Web Application #: 7054713

This web application has been submitted to: The Department of Community Economic Development (DCED)

Please Read and Sign this page, ATTACH All supporting documentation, and MAIL to:

Pennsylvania Department Of Community and Economic Development
Commonwealth Keystone Building
Attn: Customer Service Center
400 North Street, 4th Floor
Harrisburg, PA 17120-0225

I hereby certify that all information contained in the single application and supporting materials submitted to DCED via the internet, Web Application # 7054713 and its attachments are true and correct and accurately represent the status and economic condition of the Applicant. If I knowingly make a false statement or overvalue a security to obtain a grant and/or loan from Commonwealth of Pennsylvania, I may be subject to criminal prosecution.

Signature: [Signature] Date: 2-5-09

Print Name: CARL S. LINDBERG Title: CHAIRMAN

Representing: West Brandywine Township Municipal Authority

Address: Coatesville PA 19320-

If this application is being submitted on behalf of another entity, a certification is also required for that entity.

Signature: _____

Print Name: _____ Title: _____

Corporate Submissions Only:

Attested by: _____ (Signature of Corporate Secretary)

The Department of Community and Economic Development reserves the right to accept or reject any or all applications submitted on the Single Application for Assistance contingent upon available funding sources and respective applicant eligibility.

EXHIBIT 1
PROJECT NARRATIVE

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

The West Brandywine Township Municipal Authority, which currently provides sanitary sewer service to residents of West Brandywine Township, has through discussions with representatives from Caln Township, Valley Township and Sadsbury Township begun investigating the ability to acquire capacity at the Pennsylvania American Water Company's Coatesville treatment plant. The Plant is currently undergoing an expansion to double its 3.5 million gallon per day capacity to 7 million gallons per day. The PA DEP has mandated a Connections Management Plan to control connections, until the plant expansion is complete. The acquisition would require the formation of a new "Regional Authority" made up of representatives from West Brandywine Township, Caln Township, Valley Township, and Sadsbury Township. Please refer to the attached Table IV-2, as prepared by PAWC for their 537 Plan Update, which was filed with PADEP in August 2006. It shows the current allocated flows for each township and the projected flows for the next 10 year period and beyond. The combined projected growth in these four townships would require 3,585,750 gpd or over 1,475,000 gpd of additional sewage capacity, which is 70% higher than the currently allocated flows (2,110,398 gpd) and represents nearly 50% of the proposed capacity of the treatment plant.

Pennsylvania American Water Company, in conjunction with its contributing municipalities, is in the process of completing a PA DEP mandated update of its Act 537 Sewage Facilities Plan. Each of the Municipalities is updating their Sewage Facilities Plan as well. The Municipalities of West Brandywine Township, Caln Township, Valley Township, and Sadsbury Township believe that a regional approach with a percentage of ownership will best meet the future needs for sewage planning in the rapidly growing areas. The regional partnership believes that the local officials have a better understanding of the needs of the community. The fact that the sewage needs are controlled by a private company, whose decisions might not be based solely on the needs of the particular area, causes some uneasiness. This is not to say that PAWC is not cognizant of the Townships concerns, but the four municipalities believe that a regional public-private partnership is the best solution to the long term sewage facilities planning needs for the region. This partnership will provide stability needed to assure prospective

developers that their sanitary sewer needs can be met. It is felt this plan will provide a stable environment for developers, who provide an economic impact to the small municipal governments, as can be seen currently.

The recent downturn in the housing market in this area has had a substantial impact on the Township's budgets, which depend on real estate transfer taxes, earned income tax and development fees to support state mandated programs such as the uniform building code. The Municipalities Planning Code has been interpreted to require each municipality to provide for all Land Use requirements. Therefore, the historical and proposed land uses to be served by this project include all forms of residential, commercial and industrial land uses. Each municipality provides and will continue to provide planning for land use needs. The regionalization of sewage needs will provide for uniform planning across the region for future sewage needs. It will also give the municipalities' ability to better plan for future sewage plant needs, based upon land use decisions made by participating municipalities.

The Project is estimated to take approximately two and one half to three years to complete. PAWC has been approached and appears to be interested in discussing this approach to providing a public-private solution to regional sewage needs. The first step would be to form a regional authority that would represent each of the participating municipalities. The Authority would negotiate with PAWC and would then secure financing, presumably in the form of a bond issue to finance the purchase of the percentage of capacity representative of the usage of the member municipalities. The Municipalities of West Brandywine Township, Caln Township, Valley Township, and Sadsbury Township would be directly benefited from the proposed project, however the remaining contributing municipalities would derive a benefit from the public-private partnership as well.

The project will promote the most efficient use of the sewage treatment facility by providing for stable long term planning and growth goals. Input from both the public officials, who make the policy decisions that drive the land use process and the private operator, whose experience in operating sewage facilities can be provided. The goal of the municipalities who will participate in this acquisition is to ensure the future sewer needs can be provided to the existing and future residents and businesses without disruption to meet its obligation to the health, safety and welfare of its constituents. The group believes that this is the most effective way to implement sound management practices, to enhance the long term sustainability of the system and wisely manage the assets of the plant. This public private partnership will serve the existing residents, as well as plan for the growth of the region.

Table IV-2
**CONTRACTED CAPACITIES AND FUTURE FLOWS
 FOR PAWC TREATMENT FACILITY**
 (average flows - gallons per day)

| | 5 Year Total | | 10 Year Total | | Beyond 10 Year Total | |
|--------------------------------|-------------------------------|---|-------------------------------|---|-------------------------------|---|
| | Table IV-1 Projected Flows | Projected Flows with Contract Capacities | Table IV-1 Projected Flows | Projected Flows with Contract Capacities | Table IV-1 Projected Flows | Projected Flows with Contract Capacities |
| Cain ⁽¹⁾ | 506,625 | 800,000 | 611,402 | 800,000 | 800,000 | 800,000 |
| Coatesville | 2,430,847 | 2,430,847 | 2,514,744 | 2,514,744 | 2,682,539 | 2,682,539 |
| East Fallowfield | 240,191 | 240,191 | 266,508 | 266,606 | 294,706 | 294,706 |
| Highland | 48,375 | 48,375 | 48,375 | 48,375 | 48,375 | 48,375 |
| Parkesburg | 581,094 | 581,094 | 666,857 | 666,857 | 952,157 | 952,157 |
| Sadsbury ⁽¹⁾ | 300,460 | 410,750 | 373,232 | 410,750 | 428,132 | 410,750 |
| Valley ⁽¹⁾ | 956,003 | 1,540,000 | 1,150,669 | 1,540,000 | 1,540,000 | 1,540,000 |
| West Brandywine ⁽²⁾ | 347,310 | 835,000 | 509,873 | 835,000 | 835,000 | 835,000 |
| West Cain | 154,059 | 154,059 | 244,959 | 244,959 | 310,209 | 310,209 |
| West Sadsbury | 204,979 | 204,979 | 351,018 | 351,018 | 487,676 | 487,676 |
| Veterans Hospital | 78,877 | 78,877 | 78,877 | 78,877 | 78,877 | 78,877 |
| Bulk Haulers | 6,318 | 6,318 | 6,318 | 6,318 | 6,318 | 6,318 |
| Totals | 6,866,138 | 7,330,490 | 6,822,828 | 7,763,402 | 8,463,989 | 8,446,607 |

(1) Contracted capacities shown per existing Agreements with PAWC

(2) Contracted capacity shown per draft Agreement with PAWC. Current Agreement allocates 345,000 gpd

EXHIBIT 2
STATEMENT OF ESTIMATED COST

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

THE BASIS FOR THIS ESTIMATE OF PROBABLE COST HAS BEEN BASED UPON THE COST ASSOCIATED WITH THE RECENT PROJECT TO EXPAND THE EXISTING PLANT CAPACITY FROM 3.5 MILLION GALLONS PER DAY TO 7 MILLION GALLONS PER DAY. IT ASSUMES THE PARTICIPATING MUNICIPALITIES WILL CONTRIBUTE 52% OF THE PLANTS CAPACITY BASED UPON SEWAGE FACILITY PLANNING.

The Cost to purchase 52% of the Coatesville Treatment plant including Land, Buildings, equipment, sewer and water facilities and other appurtenances

\$52,000,000.00

Other Associated Costs

| | | |
|---------------------------|-------|-----------------|
| Professional Services | 0.50% | \$ 260,000.00 |
| Engineering Services | 0.25% | \$ 130,000.00 |
| Closing Cost | 2.00% | \$ 1,040,000.00 |
| Legal Fees | 0.25% | \$ 130,000.00 |
| Insurance (Bond) | | \$ 250,000.00 |
| Environmental Assessments | | \$ 25,000.00 |
| Contingencies | 2.5% | \$ 1,300,000.00 |

TOTAL ESTIMATED COST

\$55,135,000.00

TOTAL GRANT REQUEST

\$20,000,000.00

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY

Incorporated 1995

198 Lafayette Road Coatesville, Pennsylvania 19320
Phone - 610-380-8200 Fax - 610-384-4934

Chairman - Carl S. Lindborg
Secretary - Charles H. Hossack
Asst. Sec./Treas. - Wilbur C. Adams



Vice-Chairman - William R. McAdoo
Treasurer - William L. Goins
Manager - Ronald A. Rambo, Jr.

February 11, 2009

Commonwealth Financing Authority
Steven Kaplan, Chairman
PA Department of Community and Economic Development
Center for Business Financing- Site Development Division
H2O PA Program
400 North Street, 4th Floor
Harrisburg, PA 17120-0225

RE: Letter of Compliance with Comprehensive Land Use Plan

Dear Mr. Kaplan:

As a Township Municipal Authority, there is no direct planning component. Serving as both Authority and Township Manager, I have discussed this project with the appointed members of the Authority and the elected officials of the Township.

The Authority has taken the time to discuss this plan to ensure that it is consistent with the long term planning of the Authority to provide the best available sewer service to the residents of West Brandywine Township. In the same respect, the Board of Supervisors has determined that what is being pursued by the Authority is in the best interest of the Township residents and that it is in order with what is noted in the Township's Act 537 Plan and Comp Plan.

The acquisition of sewer plant capacity will provide the ability to further control future needs of the Township. Should you have any questions, please do not hesitate to contact the Township office.

Thank you.

Sincerely,

Ronald A. Rambo, Jr.
Authority Manager

xc: WBTMA Board
WBT Board of Supervisors
James W. MacCombie, P.E.
File

skf11-09

EXHIBIT DRK - 3R

H2O PA PROGRAM
WATER SUPPLY, SANITARY SEWER AND STORM WATER
PROJECTS
GRANT APPLICATION
FOR

CSC

FEB 12 2009

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

CUSTOMER SERVICE CENTER

J. Colucci
3:20 PM

FOR THE TOWNSHIPS
OF
WEST BRANYWINE TOWNSHIP, CALN TOWNSHIP,
VALLEY TOWNSHIP AND SADSBUARY TOWNSHIP

SUBMITTED TO
COMMONWEALTH FINANCING AUTHORITY
STEVEN KAPLAN, CHAIRMAN
PA DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT
CENTER FOR BUSINESS FINANCING
SITE DEVELOPMENT DIVISION
H2O PA PROGRAM
COMMONWEALTH KEYSTONE BUILDING
400 NORTH STREET, 4TH FLOOR
HARRISBURG, PA 17120-0225

PREPARED FOR
WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
CARL S. LINDBORG, CHAIRMAN
198 LAFAYETTE ROAD
COATESVILLE, PA 19320

FEBRUARY 12, 2009

Date Received: 02/12/09
BOS _____ MGR/SEC/TREAS _____
FADMIN _____ SEC/REC _____ ADAS _____
BI/CO _____ TWPENG _____ PCH _____
SOL _____ TC _____ MA _____ WBPA _____
PWD _____ HC _____ PCS _____ PC _____
PRB _____ PRC _____ ZHB _____ FM _____
OTHER _____

H2O PA PROGRAM
WATER SUPPLY, SANITARY SEWER AND STORM WATER
PROJECTS
GRANT APPLICATION
FOR

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

FOR THE TOWNSHIPS
OF
WEST BRANYWINE TOWNSHIP, CALN TOWNSHIP,
VALLEY TOWNSHIP AND SADBURY TOWNSHIP

SUBMITTED TO
COMMONWEALTH FINANCING AUTHORITY
STEVEN KAPLAN, CHAIRMAN
PA DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT
CENTER FOR BUSINESS FINANCING
SITE DEVELOPMENT DIVISION
H2O PA PROGRAM
COMMONWEALTH KEYSTONE BUILDING
400 NORTH STREET, 4TH FLOOR
HARRISBURG, PA 17120-0225

PREPARED FOR
WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
CARL S. LINDBORG, CHAIRMAN
198 LAFAYETTE ROAD
COATESVILLE, PA 19320

FEBRUARY 12, 2009

**West Brandywine Township Municipal Authority
H2O PA Grant**

Application Number

7054713

PA DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT
Single Application for Assistance

I. PROFILES

| Applicant/Sponsor | | | |
|-------------------|--|--|---|
| Name: | West Brandywine Township Municipal Authority | CEO: | Carl S. Lindborg |
| CEO Title: | Chairman | Address: | 198 Lafayette Road |
| City: | Coatesville | State: | PA |
| Zip: | 19320- | FEIN: | 232821548 |
| NAICS Code: | 2213 | <input type="radio"/> For-Profit Corporation <input type="radio"/> Non-Profit Corporation <input checked="" type="radio"/> Government <input type="radio"/> Partnership <input type="radio"/> Sole Proprietorship | |
| Contact Name: | Ronald A. Rambo, Jr. | Phone: | (610) 380-8200 |
| Title: | Manager | Fax: | (610) 384-4934 |
| Fax: | (610) 384-4934 | SAP Vendor #: | |
| Email: | manager@wbrandywine.org | PA Revenue Tax Box # | |
| | | Internet Access: | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

| Business Specifics | | | |
|---|---|-----------------|--|
| Current # of Full-time Employees: | Pennsylvania _____ | Worldwide _____ | |
| Minority Owned: | <input type="checkbox"/> Yes <input type="checkbox"/> No if yes, ethnicity (optional): _____ | Woman Owned: | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| <input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> C Corporation <input type="checkbox"/> Limited Liability Corp <input type="checkbox"/> Limited Liability Partnership | | | |
| Total Sales \$ | R&D Investment (% of budget) | | |
| Total Export Sales \$ | Employee Trng. Investment (% of budget) | | |

| Company/Occupant | | | |
|------------------|--|------------------|--|
| Name: | | CEO: | |
| CEO Title: | | Address: | |
| City: | | State: | |
| Zip: | | FEIN: | |
| NAICS Code: | | UC# | |
| Contact Name: | | Title: | |
| Phone: | | Fax: | |
| E-mail: | | Internet Access: | <input type="checkbox"/> Yes <input type="checkbox"/> No |

| Beneficial Owner/Developer | | | |
|----------------------------|--|----------|--|
| Name: | | Address: | |
| City: | | State: | |
| Zip: | | FEIN: | |

II. PROJECT SITE LOCATION(S) (see page 7-8 for site location 2-6)

| | | | |
|--|----------------------------------|---------------|-------------------|
| Site One: | | | |
| Address: | Pennsylvania America Water Compe | City: | South Coatesville |
| State: | PA | Zip: | 19320- |
| County: | Chester | Municipality: | Coatesville City |
| PA House #: | 26 | PA Senate #: | 44 |
| US Congressional #: | 6 | | |
| Current # of Full-Time Employees at this Site: | 0 | | |
| # of Full-Time Jobs to be Created at this Site: | 0 | | |
| <input type="checkbox"/> Enterprise Zone <input type="checkbox"/> Brownfield <input type="checkbox"/> Act 47 Distressed Community <input type="checkbox"/> Keystone Opportunity Zone <input type="checkbox"/> Prime Agricultural Area <input type="checkbox"/> Uses PA Port | | | |

III. PROJECT INFORMATION

Have you contacted anyone at DCED/GAT about your project? yes no. If yes, indicate who.
 Sandy Orth

Are you interested in a specific funding source? If so, indicate: _____
 H2OPAWSSW

Project Name/Description (max. 60 characters) Regional Aquisition of Sewage Plant Capacity

Is this project related to another previously submitted project? yes no

If yes, indicate previous project name: _____

IV. TYPE OF ENTERPRISE (Check appropriate box or boxes)

| | | |
|--|---|---|
| <input type="checkbox"/> Advanced Technology | <input type="checkbox"/> Economic Dev. Provider | <input type="checkbox"/> Mining |
| <input type="checkbox"/> Agri-Processor | <input type="checkbox"/> Educational Facility | <input type="checkbox"/> Other (specify) |
| <input type="checkbox"/> Agri-Producer | <input type="checkbox"/> Emergency Responder | <input type="checkbox"/> Professional Services |
| <input checked="" type="checkbox"/> Authority | <input type="checkbox"/> Exempt Facility | <input type="checkbox"/> Recycling |
| <input type="checkbox"/> Biotechnology / Life Sciences | <input type="checkbox"/> Export Manufacturing | <input type="checkbox"/> Reg. & Nat. Headquarters |
| <input type="checkbox"/> Business Financial Services | <input type="checkbox"/> Export Service | <input type="checkbox"/> Research & Development |
| <input type="checkbox"/> Call Center | <input type="checkbox"/> Food Processing | <input type="checkbox"/> Retail |
| <input type="checkbox"/> Child Care Center | <input type="checkbox"/> Government | <input type="checkbox"/> Social Services Provider |
| <input type="checkbox"/> Commercial | <input type="checkbox"/> Healthcare | <input type="checkbox"/> Tourism Promotion |
| <input type="checkbox"/> Community Dev. Provider | <input type="checkbox"/> Hospitality | <input type="checkbox"/> Warehouse & Terminal |
| <input type="checkbox"/> Computer & Clerical Operators | <input type="checkbox"/> Industrial | |
| <input type="checkbox"/> Defense Related | <input type="checkbox"/> Manufacturing | |
| Please fill in when "Other" is specified. | | |

V. INDICATE BUDGET CATEGORY OF FINANCIAL ASSISTANCE REQUESTED (Check all appropriate boxes)

| | | |
|---|---|--|
| <input checked="" type="checkbox"/> Acquisition | <input type="checkbox"/> Infrastructure / Site Prep | <input type="checkbox"/> Operating Costs/Working Capital |
| <input type="checkbox"/> General Construction | <input type="checkbox"/> Machinery and Equipment | <input checked="" type="checkbox"/> Related Costs |
| | | <input type="checkbox"/> Other Costs |

VI. HOW WILL THE ASSISTANCE BE USED? (Check all appropriate boxes)

| | | |
|--|--|---|
| <input checked="" type="checkbox"/> Community Development/Revitalization | <input checked="" type="checkbox"/> Environmental | <input type="checkbox"/> Recreation |
| <input checked="" type="checkbox"/> Community Services | <input type="checkbox"/> Export - Domestic Trade (out of PA) | <input type="checkbox"/> Tax Credits |
| <input type="checkbox"/> Crime Prevention | <input type="checkbox"/> Export - International Trade (out of USA) | <input type="checkbox"/> Technology Development |
| <input type="checkbox"/> Economic Development/Revitalization | <input type="checkbox"/> Housing | <input type="checkbox"/> Tourism Promotion |
| <input type="checkbox"/> Education | <input checked="" type="checkbox"/> Planning | |

VII. PROJECT BUDGET

Include all sources of funds and project costs. (Include monies not financed with DCED funds.)

See page 8 - 18 for Budget 5 - 8

| Sources | H2OPAWSSW | Joint Municipal Authority Bond | | | Total |
|---|------------|--------------------------------|---|---|------------------|
| Type of Financial Assistance | DCED | Local | | | for Budget 1 - 8 |
| ACQUISITION | | | | | |
| Land | 4,000,000 | 6,400,000 | | | 10,400,000 |
| Buildings | 13,000,000 | 20,800,000 | | | 33,800,000 |
| Subtotal | 17,000,000 | 27,200,000 | 0 | 0 | 44,200,000 |
| GENERAL CONSTRUCTION | | | | | |
| New Construction | 0 | 0 | | | 0 |
| Renovations | 0 | 0 | | | 0 |
| Subtotal | 0 | 0 | 0 | 0 | 0 |
| INFRASTRUCTURE/ SITE PREPARATION | | | | | |
| Roads & Streets | 0 | 0 | | | 0 |
| Parking | 0 | 0 | | | 0 |
| Water/Sewer | 3,000,000 | 4,800,000 | | | 7,800,000 |

PROJECT BUDGET (continued)

| <i>Sources</i> | H2OPAWSSW | Joint Municipal Authority Bond | | | <i>Total</i> |
|---|------------------|--------------------------------|----------|----------|------------------|
| <i>Utilities</i> | 0 | 0 | | | 0 |
| <i>Demolition</i> | 0 | 0 | | | 0 |
| <i>Excavation/Grading</i> | 0 | 0 | | | 0 |
| <i>Environmental Cleanup</i> | 0 | 0 | | | 0 |
| Subtotal | 3,000,000 | 4,800,000 | 0 | 0 | 7,800,000 |
| MACHINERY & EQUIPMENT | | | | | |
| <i>New Equipment Purchase</i> | 0 | 0 | | | 0 |
| <i>Used Equipment Purchase</i> | 0 | 0 | | | 0 |
| <i>Upgrade Existing</i> | 0 | 0 | | | 0 |
| <i>Installation/Building Modification</i> | 0 | 0 | | | 0 |
| <i>Vehicles</i> | 0 | 0 | | | 0 |
| Subtotal | 0 | 0 | 0 | 0 | 0 |
| OPERATING COSTS/ WORKING CAPITAL | | | | | |
| <i>Working Capital</i> | 0 | 0 | | | 0 |
| <i>Salaries & Fringe Benefits</i> | 0 | 0 | | | 0 |
| <i>Training & Technical Assistance</i> | 0 | 0 | | | 0 |
| <i>Consumable Supplies</i> | 0 | 0 | | | 0 |
| <i>Travel</i> | 0 | 0 | | | 0 |
| <i>Promotion/Public Relations/Advertising</i> | 0 | 0 | | | 0 |
| <i>Office Equipment</i> | 0 | 0 | | | 0 |
| <i>Space Costs</i> | 0 | 0 | | | 0 |
| <i>Audit</i> | 0 | 0 | | | 0 |
| <i>Indirect Costs</i> | 0 | 0 | | | 0 |
| Subtotal | 0 | 0 | 0 | 0 | 0 |

PROJECT BUDGET (continued)

| Sources | H2OPAWSSW | Joint Municipal Authority Bond | | | Total |
|-----------------------------------|------------------------|--------------------------------|----------|----------|-------------------|
| RELATED COSTS | | | | | |
| Professional Services/Consultants | 0 | 260,000 | | | 260,000 |
| Engineering | 0 | 130,000 | | | 130,000 |
| Inspections | 0 | 0 | | | 0 |
| Fees | 0 | 0 | | | 0 |
| Insurance | 0 | 250,000 | | | 250,000 |
| Environmental Assessment | 0 | 25,000 | | | 25,000 |
| Legal Costs | 0 | 130,000 | | | 130,000 |
| Closing Costs | 0 | 1,040,000 | | | 1,040,000 |
| Contingencies | 0 | 1,300,000 | | | 1,300,000 |
| Subtotal | 0 | 3,135,000 | 0 | 0 | 3,135,000 |
| OTHER | | | | | |
| Other | See page 11 for detail | | | | |
| Subtotal | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 20,000,000 | 35,135,000 | 0 | 0 | 55,135,000 |

VIII. BASIS OF COSTS (Check appropriate item)

- Appraisals
- Bids/Quotations
- Contractor Estimates
- Engineer Estimates
- Sales Agreements
- Budget Justification

IX. PROJECT NARRATIVE

Attach a comprehensive description of this project. The narrative must specifically address each cost item identified in the project budget. In general, the narrative must include:

- A. Specific Problems to be Addressed or Improvement to be Financed
- B. Project Description
- C. Project Schedule, Key Milestones and Dates
- D. Documentation to Support Budget Costs

If applicable, include:

- E. Certifications or Assurances
- F. Planning/Zoning Letter

NARRATIVE

See Attached

II. PROJECT SITE LOCATION(S) Cont:

| | | | |
|--|--|---------------|--|
| Site Two: | | | |
| Address: | | City: | |
| State: | | Zip: | |
| County: | | Municipality: | |
| PA House #: | | PA Senate #: | |
| US Congressional #: | | | |
| Current # of Full-Time Employees at this Site: | | | |
| # of Full-Time Jobs to be Created at this Site: | | | |
| <input type="checkbox"/> Enterprise Zone <input type="checkbox"/> Brownfield <input type="checkbox"/> Act 47 Distressed Community <input type="checkbox"/> Keystone Opportunity Zone <input type="checkbox"/> Prime Agricultural Area <input type="checkbox"/> Uses PA Port | | | |

| | | | |
|--|--|---------------|--|
| Site Three: | | | |
| Address: | | City: | |
| State: | | Zip: | |
| County: | | Municipality: | |
| PA House #: | | PA Senate #: | |
| US Congressional #: | | | |
| Current # of Full-Time Employees at this Site: | | | |
| # of Full-Time Jobs to be Created at this Site: | | | |
| <input type="checkbox"/> Enterprise Zone <input type="checkbox"/> Brownfield <input type="checkbox"/> Act 47 Distressed Community <input type="checkbox"/> Keystone Opportunity Zone <input type="checkbox"/> Prime Agricultural Area <input type="checkbox"/> Uses PA Port | | | |

| | | | |
|--|--|---------------|--|
| Site Four: | | | |
| Address: | | City: | |
| State: | | Zip: | |
| County: | | Municipality: | |
| PA House #: | | PA Senate #: | |
| US Congressional #: | | | |
| Current # of Full-Time Employees at this Site: | | | |
| # of Full-Time Jobs to be Created at this Site: | | | |
| <input type="checkbox"/> Enterprise Zone <input type="checkbox"/> Brownfield <input type="checkbox"/> Act 47 Distressed Community <input type="checkbox"/> Keystone Opportunity Zone <input type="checkbox"/> Prime Agricultural Area <input type="checkbox"/> Uses PA Port | | | |

II. PROJECT SITE LOCATION(S) Cont.

| | | | |
|--|--|---------------|--|
| Site Five: | | | |
| Address: | | City: | |
| State: | | Zip: | |
| County: | | Municipality: | |
| PA House #: | | PA Senate #: | |
| US Congressional #: | | | |
| Current # of Full-Time Employees at this Site: | | | |
| # of Full-Time Jobs to be Created at this Site: | | | |
| <input type="checkbox"/> Enterprise Zone <input type="checkbox"/> Brownfield <input type="checkbox"/> Act 47 Distressed Community <input type="checkbox"/> Keystone Opportunity Zone <input type="checkbox"/> Prime Agricultural Area <input type="checkbox"/> Uses PA Port | | | |

| | | | |
|--|--|---------------|--|
| Site Six: | | | |
| Address: | | City: | |
| State: | | Zip: | |
| County: | | Municipality: | |
| PA House #: | | PA Senate #: | |
| US Congressional #: | | | |
| Current # of Full-Time Employees at this Site: | | | |
| # of Full-Time Jobs to be Created at this Site: | | | |
| <input type="checkbox"/> Enterprise Zone <input type="checkbox"/> Brownfield <input type="checkbox"/> Act 47 Distressed Community <input type="checkbox"/> Keystone Opportunity Zone <input type="checkbox"/> Prime Agricultural Area <input type="checkbox"/> Uses PA Port | | | |

VII. PROJECT BUDGET (Continued)

| Sources | | | | | |
|---|---|---|---|---|------------------------------------|
| Type of Financial Assistance | | | | | See page 3 - 5 for Budget 1 - 4 |
| ACQUISITION | | | | | |
| Land | | | | | |
| Buildings | | | | | |
| Subtotal | 0 | 0 | 0 | 0 | |
| GENERAL CONSTRUCTION | | | | | |
| New Construction | | | | | |
| Renovations | | | | | |
| Subtotal | 0 | 0 | 0 | 0 | |
| INFRASTRUCTURE/ SITE PREPARATION | | | | | |
| Roads & Streets | | | | | |
| Parking | | | | | |
| Water/Sewer | | | | | |
| Utilities | | | | | |
| Demolition | | | | | |
| Excavation/Grading | | | | | |
| Environmental Cleanup | | | | | |
| Subtotal | 0 | 0 | 0 | 0 | |
| MACHINERY & EQUIPMENT | | | | | |
| New Equipment Purchase | | | | | |
| Used Equipment Purchase | | | | | |
| Upgrade Existing | | | | | |
| Installation/Building Modification | | | | | |
| Vehicles | | | | | |
| Subtotal | 0 | 0 | 0 | 0 | |

VII. PROJECT BUDGET (continued)

| | | | | | |
|---|------------------------|---|---|---|--|
| Sources | | | | | |
| OPERATING COSTS/ WORKING CAPITAL | | | | | |
| <i>Working Capital</i> | | | | | |
| <i>Salaries & Fringe Benefits</i> | | | | | |
| <i>Training & Technical Assistance</i> | | | | | |
| <i>Consumable Supplies</i> | | | | | |
| <i>Travel</i> | | | | | |
| <i>Promotion/Public Relations/Advertising</i> | | | | | |
| <i>Office Equipment</i> | | | | | |
| <i>Space Costs</i> | | | | | |
| <i>Audit</i> | | | | | |
| <i>Indirect Costs</i> | | | | | |
| Subtotal | 0 | 0 | 0 | 0 | |
| RELATED COSTS | | | | | |
| <i>Professional Services/Consultants</i> | | | | | |
| <i>Engineering</i> | | | | | |
| <i>Inspections</i> | | | | | |
| <i>Fees</i> | | | | | |
| <i>Insurance</i> | | | | | |
| <i>Environmental Assessment</i> | | | | | |
| <i>Legal Costs</i> | | | | | |
| <i>Closing Costs</i> | | | | | |
| <i>Contingencies</i> | | | | | |
| Subtotal | 0 | 0 | 0 | 0 | |
| OTHER | | | | | |
| Other | See page 11 for detail | | | | |
| Subtotal | 0 | 0 | 0 | 0 | |
| TOTAL | 0 | 0 | 0 | 0 | |

ONLINE and/or ATTACHED ADDENDA LIST

None



COMMUNITY AND ECONOMIC DEVELOPMENT
Single Application for Assistance

Web Application #: 7054713

This web application has been submitted to: The Department of Community Economic Development (DCED)

Please Read and Sign this page, ATTACH All supporting documentation, and MAIL to:

Pennsylvania Department Of Community and Economic Development
Commonwealth Keystone Building
Attn: Customer Service Center
400 North Street, 4th Floor
Harrisburg, PA 17120-0225

I hereby certify that all information contained in the single application and supporting materials submitted to DCED via the internet, Web Application # 7054713 and its attachments are true and correct and accurately represent the status and economic condition of the Applicant. If I knowingly make a false statement or overvalue a security to obtain a grant and/or loan from Commonwealth of Pennsylvania, I may be subject to criminal prosecution.

Signature: [Handwritten Signature] Date: 2-5-09

Print Name: CARL S. LINDBORG Title: CHAIRMAN

Representing: West Brandywine Township Municipal Authority

Address: Coatesville PA 19320-

If this application is being submitted on behalf of another entity, a certification is also required for that entity.

Signature: _____

Print Name: _____ Title: _____

Corporate Submissions Only:

Attested by: _____ (Signature of Corporate Secretary)

The Department of Community and Economic Development reserves the right to accept or reject any or all applications submitted on the Single Application for Assistance contingent upon available funding sources and respective applicant eligibility.

Exhibit 1

EXHIBIT I
PROJECT NARRATIVE

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

The West Brandywine Township Municipal Authority, which currently provides sanitary sewer service to residents of West Brandywine Township, has through discussions with representatives from Caln Township, Valley Township and Sadsbury Township begun investigating the ability to acquire capacity at the Pennsylvania American Water Company's Coatesville treatment plant. The Plant is currently undergoing an expansion to double its 3.5 million gallon per day capacity to 7 million gallons per day. The PA DEP has mandated a Connections Management Plan to control connections, until the plant expansion is complete. The acquisition would require the formation of a new "Regional Authority" made up of representatives from West Brandywine Township, Caln Township, Valley Township, and Sadsbury Township. Please refer to the attached Table IV-2, as prepared by PAWC for their 537 Plan Update, which was filed with PADEP in August 2006. It shows the current allocated flows for each township and the projected flows for the next 10 year period and beyond. The combined projected growth in these four townships would require 3,585,750 gpd or over 1,475,000 gpd of additional sewage capacity, which is 70% higher than the currently allocated flows (2,110,398 gpd) and represents nearly 50% of the proposed capacity of the treatment plant.

Pennsylvania American Water Company, in conjunction with its contributing municipalities, is in the process of completing a PA DEP mandated update of its Act 537 Sewage Facilities Plan. Each of the Municipalities is updating their Sewage Facilities Plan as well. The Municipalities of West Brandywine Township, Caln Township, Valley Township, and Sadsbury Township believe that a regional approach with a percentage of ownership will best meet the future needs for sewage planning in the rapidly growing areas. The regional partnership believes that the local officials have a better understanding of the needs of the community. The fact that the sewage needs are controlled by a private company, whose decisions might not be based solely on the needs of the particular area, causes some uneasiness. This is not to say that PAWC is not cognizant of the Townships concerns, but the four municipalities believe that a regional public-private partnership is the best solution to the long term sewage facilities planning needs for the region. This partnership will provide stability needed to assure prospective

developers that their sanitary sewer needs can be met. It is felt this plan will provide a stable environment for developers, who provide an economic impact to the small municipal governments, as can be seen currently.

The recent downturn in the housing market in this area has had a substantial impact on the Township's budgets, which depend on real estate transfer taxes, earned income tax and development fees to support state mandated programs such as the uniform building code. The Municipalities Planning Code has been interpreted to require each municipality to provide for all Land Use requirements. Therefore, the historical and proposed land uses to be served by this project include all forms of residential, commercial and industrial land uses. Each municipality provides and will continue to provide planning for land use needs. The regionalization of sewage needs will provide for uniform planning across the region for future sewage needs. It will also give the municipalities' ability to better plan for future sewage plant needs, based upon land use decisions made by participating municipalities.

The Project is estimated to take approximately two and one half to three years to complete. PAWC has been approached and appears to be interested in discussing this approach to providing a public-private solution to regional sewage needs. The first step would be to form a regional authority that would represent each of the participating municipalities. The Authority would negotiate with PAWC and would then secure financing, presumably in the form of a bond issue to finance the purchase of the percentage of capacity representative of the usage of the member municipalities. The Municipalities of West Brandywine Township, Caln Township, Valley Township, and Sadsbury Township would be directly benefited from the proposed project, however the remaining contributing municipalities would derive a benefit from the public-private partnership as well.

The project will promote the most efficient use of the sewage treatment facility by providing for stable long term planning and growth goals. Input from both the public officials, who make the policy decisions that drive the land use process and the private operator, whose experience in operating sewage facilities can be provided. The goal of the municipalities who will participate in this acquisition is to ensure the future sewer needs can be provided to the existing and future residents and businesses without disruption to meet its obligation to the health, safety and welfare of its constituents. The group believes that this is the most effective way to implement sound management practices, to enhance the long term sustainability of the system and wisely manage the assets of the plant. This public private partnership will serve the existing residents, as well as plan for the growth of the region.

Table IV-2
**CONTRACTED CAPACITIES AND FUTURE FLOWS
 FOR PAWC TREATMENT FACILITY**
 (average flows - gallons per day)

| | <u>5 Year Total</u> | | <u>10 Year Total</u> | | <u>Beyond 10 Year Total</u> | |
|--------------------------------|-------------------------------|---|-------------------------------|---|-------------------------------|---|
| | Table IV-1 Projected Flows | Projected Flows with Contract Capacities | Table IV-1 Projected Flows | Projected Flows with Contract Capacities | Table IV-1 Projected Flows | Projected Flows with Contract Capacities |
| Caln ⁽¹⁾ | 506,625 | 800,000 | 611,402 | 800,000 | 800,000 | 800,000 |
| Coatesville | 2,430,847 | 2,430,847 | 2,514,744 | 2,514,744 | 2,682,539 | 2,682,539 |
| East Fallowfield | 240,191 | 240,191 | 266,506 | 266,506 | 294,706 | 294,706 |
| Highland | 48,375 | 48,375 | 48,375 | 48,375 | 48,375 | 48,375 |
| Parkeburg | 581,094 | 581,094 | 666,857 | 666,857 | 952,157 | 952,157 |
| Sadsbury ⁽¹⁾ | 300,460 | 410,750 | 373,232 | 410,750 | 428,132 | 410,750 |
| Valley ⁽¹⁾ | 956,003 | 1,540,000 | 1,150,669 | 1,540,000 | 1,540,000 | 1,540,000 |
| West Brandywine ⁽²⁾ | 347,310 | 835,000 | 509,873 | 835,000 | 835,000 | 835,000 |
| West Caln | 154,059 | 154,059 | 244,959 | 244,959 | 310,209 | 310,209 |
| West Sadsbury | 204,979 | 204,979 | 351,016 | 351,016 | 487,676 | 487,676 |
| Veterans Hospital | 78,877 | 78,877 | 78,877 | 78,877 | 78,877 | 78,877 |
| Bulk Haulers | 6,318 | 6,318 | 6,318 | 6,318 | 6,318 | 6,318 |
| Totals | 6,866,138 | 7,330,490 | 6,822,828 | 7,763,402 | 8,463,989 | 8,446,607 |

(1) Contracted capacities shown per existing Agreements with PAWC

(2) Contracted capacity shown per draft Agreement with PAWC. Current Agreement allocates 345,000 gpd

Exhibit 2

EXHIBIT 2
STATEMENT OF ESTIMATED COST

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

THE BASIS FOR THIS ESTIMATE OF PROBABLE COST HAS BEEN BASED UPON THE COST ASSOCIATED WITH THE RECENT PROJECT TO EXPAND THE EXISTING PLANT CAPACITY FROM 3.5 MILLION GALLONS PER DAY TO 7 MILLION GALLONS PER DAY. IT ASSUMES THE PARTICIPATING MUNICIPALITIES WILL CONTRIBUTE 52% OF THE PLANTS CAPACITY BASED UPON SEWAGE FACILITY PLANNING.

The Cost to purchase 52% of the Coatesville Treatment plant including Land, Buildings, equipment, sewer and water facilities and other appurtenances

\$52,000,000.00

Other Associated Costs

| | | |
|---------------------------|-------|-----------------|
| Professional Services | 0.50% | \$ 260,000.00 |
| Engineering Services | 0.25% | \$ 130,000.00 |
| Closing Cost | 2.00% | \$ 1,040,000.00 |
| Legal Fees | 0.25% | \$ 130,000.00 |
| Insurance (Bond) | | \$ 250,000.00 |
| Environmental Assessments | | \$ 25,000.00 |
| Contingencies | 2.5% | \$ 1,300,000.00 |

TOTAL ESTIMATED COST

\$55,135,000.00

TOTAL GRANT REQUEST

\$20,000,000.00

Exhibit 3

EXHIBIT 3
FUNDING COMMITMENT LETTERS

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

Due to the nature of this project it is not feasible to obtain funding commitments until after the formation of a joint authority. It is anticipated that by combining the resources of the participating municipalities that funding for this project would be obtained through the sale of a bond issue.

Exhibit 4

Exhibit 5

WEST BRANDYWINE TOWNSHIP
MUNICIPAL AUTHORITY
COATESVILLE, PENNSYLVANIA

(A Component Unit of West Brandywine Township)

FINANCIAL STATEMENTS

DECEMBER 31, 2007

KIMMEL, LORAH & ASSOCIATES, LLP

CERTIFIED PUBLIC ACCOUNTANTS

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

FINANCIAL STATEMENTS
December 31, 2007

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WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

ORGANIZATION

MEMBERS OF THE BOARD
On December 31, 2007

Josef G. Obernier, Sr.
William R. McAdoo
William L. Goins
Charles H. Hossack
Susan W. Bowar

Chairman
Vice-Chairman
Treasurer
Secretary
Asst. Secretary/Treasurer

SOLICITOR

John E. Good, Esquire

CONSULTING ENGINEER

Herbert E. MacCombie, Jr. P.E.,
Consulting Engineer & Surveyor, Inc.

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(Chester County, Pennsylvania)

MANAGEMENT'S DISCUSSION AND ANALYSIS

For the Year Ended December 31, 2007

(UNAUDITED)

Our discussion and analysis of West Brandywine Township Municipal Authority's (the "Authority") financial performance provides an overview of the Authority's financial activities for the fiscal year ended December 31, 2007. Please read it in conjunction with the Authority's basic financial statements which begin on page 9.

FINANCIAL HIGHLIGHTS

- Total net assets for 2007 are \$2,657,618. The Authority's net assets increased by 6.03% or \$151,211.
- Operating revenues for 2007 are \$681,512 reflecting a 70.87% increase or \$282,654 from 2006.
- Operating expenses for 2007 are \$154,600 reflecting a 4.92% decrease or \$23,535 from 2006.

USING THIS ANNUAL REPORT

The Authority is a special-purpose government entity engaged in a single business type activity of providing wastewater treatment services to West Brandywine Township. Therefore, it only maintains one fund, an enterprise fund (a component of proprietary funds). The accompanying basic financial statements of the Authority are the financial statements of its enterprise fund, as required by U.S. generally accepted accounting principles.

Reporting the Authority as a Whole

The Statement of Net Assets and the Statement of Activities

One of the most important questions asked about the Authority's finances is, "Is the Authority as a whole better off or worse off as a result of the year's activities?" The Statement of Net Assets and the Statement of Activities report information about the Authority and about its activities in a way that helps answer this question. These statements include all assets and liabilities using the accrual basis of accounting, which is similar to the accounting used by most private-sector companies. All of the current year's revenue and expenses are taken into account regardless of when cash is received or paid.

Management's Discussion and Analysis (unaudited), continued

These two statements report the Authority's net assets and changes in them. You can think of the Authority's net assets, the difference between assets, what the Authority owns, and liabilities, what the Authority owes, as one way to measure the Authority's financial health, or financial position. Over time, increases or decreases in the Authority's net assets are one indicator of whether its financial health is improving or deteriorating. You will need to consider other nonfinancial factors, however, such as changes in the Authority's fee structure and the condition of the Authority's sewer system, to assess the overall health of the Authority.

The statement of cash flows provides additional information about the Authority's sources and uses of cash (its "cash flows").

In the Statement of Net Assets and the Statement of Revenues, Expenses and Changes in Net Assets, we present the Authority's one kind of activity, a business-type activity. The Authority charges a fee to customers to help it cover all or most of the cost of the sewer wastewater treatment services it provides.

The Authority's purpose is to provide wastewater treatment service to the Township. The Authority divided service into two sewer districts. Kimberwick provides wastewater collection and treatment to the north central portion of the Township. Friendship Village provides wastewater collection to the southeast portion of the Township. Friendship Village relies on Pennsylvania American Water Company for treatment of its wastewater.

Reporting the Authority's Single Business-type Activity Financial Statements

The Authority only has one fund, which is an enterprise fund (a component of its proprietary type funds).

- Proprietary fund: When the Authority charges customers for the services it provides, these services are reported in its enterprise fund (a proprietary-type fund). The Authority's enterprise fund financial statements are the Authority's government-wide financial statements.
- Notes to the Financial Statements: The notes provide additional information that is essential to a full understanding of the data provided in the financial statements.

Management's Discussion and Analysis (unaudited), continued

THE AUTHORITY AS A WHOLE

The Authority's total net assets increased \$151,211 which represents a 6.03% percent increase from 2006. In contrast, last year net assets decreased by \$157,187. Our analysis below focuses on the net assets (Table 1) and changes in net assets (Table 2) of the Authority business-type activities.

**Table 1
Net Assets**

| | <u>Total Primary Government</u> | |
|---|---|--------------------|
| | <u>Business-type Activities - Enterprise Fund</u> | |
| | <u>2007</u> | <u>2006</u> |
| Current assets: | | |
| Cash and cash equivalents | \$46 467 | \$58 185 |
| Cash and cash equivalents - restricted | 236 206 | 172 699 |
| Service revenue, receivable | <u>85 733</u> | <u>69 822</u> |
| Total current assets | <u>368 406</u> | <u>300 706</u> |
| Noncurrent assets: | | |
| Capital assets: | | |
| Collection system - infrastructure | 5 980 625 | 5 915 989 |
| Equipment | 9 179 | 9 179 |
| Accumulated depreciation | <u>(1 344 172)</u> | <u>(1 224 541)</u> |
| Net capital assets | <u>4 645 632</u> | <u>4 700 627</u> |
| Total assets | <u>\$5 014 038</u> | <u>\$5 001 333</u> |
| | LIABILITIES | |
| Current liabilities: | | |
| Accounts payable | \$21 420 | \$29 926 |
| Current maturities of long-term debt | <u>125 000</u> | <u>130 000</u> |
| Total current liabilities | <u>146 420</u> | <u>159 926</u> |
| Noncurrent liabilities: | | |
| Sewer revenue bonds | 1 690 000 | 1 790 000 |
| General obligation note payable | <u>520 000</u> | <u>545 000</u> |
| Total noncurrent liabilities | <u>2 210 000</u> | <u>2 335 000</u> |
| Total liabilities | <u>2 356 420</u> | <u>2 494 926</u> |
| | NET ASSETS | |
| Invested in capital assets, net of related debt | 2 310 662 | 2 235 627 |
| Restricted | 236 206 | 172 699 |
| Unrestricted | <u>110 750</u> | <u>98 081</u> |
| Total net assets | <u>2 657 618</u> | <u>2 506 407</u> |
| Total liabilities and net assets | <u>\$5 014 038</u> | <u>\$5 001 333</u> |

Management's Discussion and Analysis (unaudited), continued

Unrestricted net assets - the part of net assets that can be used to finance day-to-day operations without constraints established by debt covenants, enabling legislation, or other legal requirements - changed from \$2,506,407 at December 31, 2006 to \$2,657,618 at the end of this year.

Table II compares the 2007 changes in net assets to the 2006 change in net assets.

TABLE II
Changes in Net Assets for 2007
Compared with 2006 activity

| | <u>2007</u> | <u>2006</u> | <u>2007 (Change)</u> |
|-----------------------------------|--------------------|--------------------|--------------------------|
| Operating revenues: | | | |
| Sewer usage fees | \$416 242 | \$379 689 | \$36 553 |
| Tapping fees | 260 424 | 13 136 | 247 288 |
| Planning and inspection fees | 2 132 | 3 107 | (975) |
| Miscellaneous revenue | <u>2 714</u> | <u>2 926</u> | <u>(212)</u> |
| Total operating revenues | <u>681 512</u> | <u>398 858</u> | <u>282 654</u> |
| Operating expenses: | | | |
| Engineering fees | 23 019 | 20 485 | 2 534 |
| Administrative expenses | 109 855 | 116 912 | (7 057) |
| Maintenance and service | 54 361 | 69 634 | (15 273) |
| Sewer treatment fees | 147 734 | 152 128 | (4 394) |
| Depreciation expense | <u>119 631</u> | <u>118 976</u> | <u>655</u> |
| Total operating expenses | <u>454 600</u> | <u>478 135</u> | <u>(23 535)</u> |
| Operating income (loss) | <u>226 912</u> | <u>(79 277)</u> | <u>306 189</u> |
| Nonoperating revenues (expenses): | | | |
| Investment income | 13 401 | 10 908 | 2 493 |
| Interest on long-term debt | <u>(89 102)</u> | <u>(88 818)</u> | <u>(284)</u> |
| Total nonoperating expenses | <u>(75 701)</u> | <u>(77 910)</u> | <u>2 209</u> |
| Increase (decrease) in net assets | <u>151 211</u> | <u>(157 187)</u> | <u>\$308 398</u> |
| Net assets, beginning of year | <u>2 506 407</u> | <u>2 663 594</u> | |
| Net assets, end of year | <u>\$2 657 618</u> | <u>\$2 506 407</u> | |

Management's Discussion and Analysis (unaudited), continued

Business-type Activities

The Authority's operating revenues will fluctuate based on wastewater discharge and development activity. Sewer revenue is calculated and billed using water consumption as the method to compute wastewater discharge. Tapping fees are assessed on new connections to the system, generally development in the Township directly effects revenue for tapping fees. During 2007 annual sewer revenue increased \$36,553 and tapping fees increased by \$247,288.

CAPITAL ASSET AND DEBT ADMINISTRATION

Capital Assets

At the end of 2007, the Authority had \$4,645,632 invested in capital assets (See Table III below). This amount represents a net decrease (including additions and deductions) of \$54,995, or 1.17 percent, over last year.

TABLE III
Capital Assets and Accumulated Depreciation

| | <u>Beginning</u> <u>Balance</u> | <u>Increases</u> | <u>Decreases</u> | <u>Ending</u> <u>Balance</u> |
|--|------------------------------------|-------------------|------------------|---------------------------------|
| Business-type activities: | | | | |
| Property, plant & equipment: | | | | |
| Collection system | \$5 915 989 | \$64 636 | \$ - | \$5 980 625 |
| Equipment | 9 179 | - | - | 9 179 |
| Total at cost | <u>5 925 168</u> | <u>64 636</u> | <u>-</u> | <u>5 989 804</u> |
| Less accumulated depreciation for: | | | | |
| Collection system, pumping stations & equipment | <u>(1 224 541)</u> | <u>(119 631)</u> | <u>-</u> | <u>(1 344 172)</u> |
| Total property, plant & equipment, net | <u>4 700 627</u> | <u>(54 995)</u> | <u>-</u> | <u>4 645 632</u> |
| Business-type activities capital assets, net | <u>\$4 700 627</u> | <u>(\$54 995)</u> | <u>\$ -</u> | <u>\$4 645 632</u> |

Management's Discussion and Analysis (unaudited), continued

Debt

The Authority has two debts outstanding:

A General Obligation Note originated on August 1, 2002 for \$650,000. The proceeds financed the Friendship Village Sewer Project. The Authority had \$545,000 outstanding on December 31, 2007.

The Sewer Revenue Bonds - Series of 2003 originated on April 15, 2003 for \$2,155,000. Proceeds were used in the construction of the sewer system. The Authority had \$1,790,000 outstanding on December 31, 2007.

ECONOMIC FACTORS

The Authority's operating revenues are anticipated to rise over the next year due to the increase in system users. The Authority's operating expenses are likely to increase over the next year in proportion with the overall rate of inflation in the southeastern Pennsylvania region.

REQUEST FOR INFORMATION

This financial report is designed to provide a general overview of the Authority's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the Authority's Manager, at WBTMA, 198 Lafayette Road, Coatesville, PA 19320.

KIMMEL, LORAH & ASSOCIATES, LLP

CERTIFIED PUBLIC ACCOUNTANTS

June 17, 2008

INDEPENDENT AUDITORS' REPORT

Members of the Board
West Brandywine Township
Municipal Authority
Coatesville, Pennsylvania

We have audited the accompanying basic financial statements of West Brandywine Township Municipal Authority, a component unit of West Brandywine Township, as of and for the years ended December 31, 2007 and 2006 as listed in the table of contents. These financial statements are the responsibility of the Authority's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion the financial statements referred to above present fairly, in all material respects, the financial position of West Brandywine Township Municipal Authority as of December 31, 2007 and 2006, and the changes in its financial position and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

The management's discussion and analysis on pages 2 through 7 is not a required part of the basic financial statements but is supplementary information required by accounting principles generally accepted in the United States of America. We have applied certain limited procedures, which consisted principally of management regarding the methods of measurement and presentation of the required supplementary information. However, we did not audit the information and express no opinion on it.

Kimmel Lorah & Associates, LLP
Certified Public Accountants

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Member of
AICPA DIVISION FOR CPA FIRMS

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)
STATEMENTS OF NET ASSETS
DECEMBER 31, 2007 AND 2006

ASSETS

| | <u>2007</u> | <u>2006</u> |
|--|---------------------------|---------------------------|
| Current assets: | | |
| Cash and cash equivalents | \$46 467 | \$58 185 |
| Cash and cash equivalents - restricted | 236 206 | 172 699 |
| Service revenue, receivable | <u>85 733</u> | <u>69 822</u> |
| Total current assets | <u>368 406</u> | <u>300 706</u> |
| Noncurrent assets: | | |
| Capital assets: | | |
| Collection system - infrastructure | 5 980 625 | 5 915 989 |
| Equipment | 9 179 | 9 179 |
| Accumulated depreciation | <u>(1 344 172)</u> | <u>(1 224 541)</u> |
| Net capital assets | <u>4 645 632</u> | <u>4 700 627</u> |
| Total assets | <u>\$5 014 038</u> | <u>\$5 001 333</u> |

LIABILITIES

| | | |
|--------------------------------------|-------------------------|-------------------------|
| Current liabilities: | | |
| Accounts payable | \$21 420 | \$29 926 |
| Current maturities of long-term debt | <u>125 000</u> | <u>130 000</u> |
| Total current liabilities | <u>146 420</u> | <u>159 926</u> |
| Noncurrent liabilities: | | |
| Sewer revenue bonds | 1 690 000 | 1 790 000 |
| General obligation note payable | <u>520 000</u> | <u>545 000</u> |
| Total noncurrent liabilities | <u>2 210 000</u> | <u>2 335 000</u> |
| Total liabilities | <u>2 356 420</u> | <u>2 494 926</u> |

NET ASSETS

| | | |
|---|---------------------------|---------------------------|
| Invested in capital assets, net of related debt | 2 310 662 | 2 235 627 |
| Restricted | 236 206 | 172 699 |
| Unrestricted | <u>110 750</u> | <u>98 081</u> |
| Total net assets | <u>2 657 618</u> | <u>2 506 407</u> |
| Total liabilities and net assets | <u>\$5 014 038</u> | <u>\$5 001 333</u> |

See Accompanying Notes

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
FOR THE YEARS ENDED DECEMBER 31, 2007 AND 2006

| | <u>2007</u> | <u>2006</u> |
|-----------------------------------|--------------------|--------------------|
| Operating revenues: | | |
| Sewer usage fees | \$416 242 | \$379 689 |
| Tapping fees | 260 424 | 13 136 |
| Planning and inspection fees | 2 132 | 3 107 |
| Miscellaneous revenue | <u>2 714</u> | <u>2 926</u> |
| Total operating revenues | <u>681 512</u> | <u>398 858</u> |
| Operating expenses: | | |
| Engineering fees | 23 019 | 20 485 |
| Administrative expenses | 109 855 | 116 912 |
| Maintenance and service | 54 361 | 69 634 |
| Sewer treatment fees | 147 734 | 152 128 |
| Depreciation expense | <u>119 631</u> | <u>118 976</u> |
| Total operating expenses | <u>454 600</u> | <u>478 135</u> |
| Operating income (loss) | <u>226 912</u> | <u>(79 277)</u> |
| Nonoperating revenues (expenses): | | |
| Investment income | 13 401 | 10 908 |
| Interest on long-term debt | <u>(89 102)</u> | <u>(88 818)</u> |
| Total nonoperating expenses | <u>(75 701)</u> | <u>(77 910)</u> |
| Increase (decrease) in net assets | <u>151 211</u> | <u>(157 187)</u> |
| Net assets, beginning of year | <u>2 506 407</u> | <u>2 663 594</u> |
| Net assets, end of year | <u>\$2 657 618</u> | <u>\$2 506 407</u> |

See Accompanying Notes

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)
STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED DECEMBER 31, 2007 AND 2006

| | <u>2007</u> | <u>2006</u> |
|--|------------------|------------------|
| Cash flows from operating activities: | | |
| Cash received from services provided | \$400 331 | \$388 247 |
| Other receipts | 265 270 | 19 169 |
| Cash paid to suppliers for goods and services | <u>(343 475)</u> | <u>(347 400)</u> |
| Net cash provided by operating activities | <u>322 126</u> | <u>60 016</u> |
| Cash flows from investing activities: | | |
| Investment income | <u>13 401</u> | <u>10 908</u> |
| Net cash provided by investing activities | <u>13 401</u> | <u>10 908</u> |
| Cash flows from capital and related financing activities: | | |
| Acquisition of capital assets | (64 636) | (9 179) |
| Debt retired | (130 000) | (120 000) |
| Interest paid | <u>(89 102)</u> | <u>(88 818)</u> |
| Net cash used by capital and related financing activities | <u>(283 738)</u> | <u>(217 997)</u> |
| Net increase (decrease) in cash and cash equivalents | 51 789 | (147 073) |
| Cash and cash equivalents, beginning of year | <u>230 884</u> | <u>377 957</u> |
| Cash and cash equivalents, end of year | <u>\$282 673</u> | <u>\$230 884</u> |
| Reconciliation of operating income (loss) to net cash provided by operating activities: | | |
| Operating income (loss) | \$226 912 | (\$79 277) |
| Adjustments to reconcile operating income (loss) to net cash provided by operating activities: | | |
| Depreciation | 119 631 | 118 976 |
| Changes in assets and liabilities: | | |
| Accounts receivable | (15 911) | 8 558 |
| Accounts payable | <u>(8 506)</u> | <u>11 759</u> |
| Net cash provided by operating activities | <u>\$322 126</u> | <u>\$60 016</u> |
| Restricted cash and cash equivalents | \$236 206 | \$172 699 |
| Unrestricted cash and cash equivalents | <u>46 467</u> | <u>58 185</u> |
| | <u>\$282 673</u> | <u>\$230 884</u> |

See Accompanying Notes

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

NOTES TO FINANCIAL STATEMENTS
December 31, 2007

Summary of Significant Accounting Policies:

The financial statements of West Brandywine Township Municipal Authority (the "Authority") have been prepared in conformity with generally accepted accounting principles (GAAP) as applied to government units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The significant accounting principles and policies utilized by the Authority are described below.

Nature of Organization

West Brandywine Township Municipal Authority is a corporate body organized and existing under the laws of the Commonwealth of Pennsylvania. The Authority was incorporated on May 16, 1995, under the Municipal Authorities Act of 1945, as amended, pursuant to an ordinance enacted by West Brandywine Township, Chester County. The purpose of the Authority is to assist West Brandywine Township to acquire, hold, construct, improve, maintain, operate, own and lease property and equipment for use in sewer systems or parts thereof, disposition of industrial wastes and water distribution systems.

Reporting Entity

In evaluating West Brandywine Township Municipal Authority as a reporting entity, the Board of Supervisors has addressed all potential component units for which the Authority may or may not be financially accountable and, as such, be includable within the Authority's financial statements. The Authority is financially accountable if it appoints a voting majority of the Organization's governing board and (1) it can impose its will on the Organization or (2) there is a potential for the Organization to provide specific financial benefit to or impose specific financial burden on the Authority. Additionally, the Authority is required to consider other organizations for which the nature and significance of their relationship are such that exclusion would cause the reporting entity's financial statements to be misleading or incomplete. There are no entities that meet the above criteria, and therefore, the financial statements of the Authority consist only of the funds of the Authority. Although the Authority is legally separate from West Brandywine Township, it is considered a component unit of the Township.

Measurement Focus and Basis of Accounting and Financial Statement Presentation

The term measurement focus is used to denote what is being measured and reported in the Authority's operating statement. The Authority is accounted for on the flow of economic resources measurement focus. The fundamental objective of this focus is to measure whether the Authority is better or worse off economically as a result of events and transactions of the period.

The term basis of accounting is used to determine when a transaction or event is recognized on the Authority's operating statement. The Authority uses the accrual basis of accounting. Under this basis, revenues are recorded when earned and expenses are recorded when incurred, even though actual payment or receipt may not occur until after the period ends.

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
December 31, 2007

Summary of Significant Accounting Policies:

The Authority adheres to the provisions of GASB No. 34, "Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments" and GASB Statement No. 38, "Certain Financial Statement Note Disclosures." Statement No. 34 established standards for external financial reporting for all state and local governmental entities, which includes a statement of net assets, a statement of revenues, expenses and changes in net assets, and a statement of cash flows. It requires the classification of net assets into three components - invested in capital assets, net of related debt; restricted; and unrestricted. These classifications are defined as follows:

- Invested in capital assets, net of related debt - This component of net assets consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes or other borrowings that are attributable to the acquisition, construction or improvement of those assets. If there are significant unspent related debt proceeds at year end, the portion of the debt attributable to the unspent proceeds are not included in the calculation of invested in capital assets, net of related debt. Rather, that portion of the debt is included in the same net assets components as the unspent proceeds.
- Restricted - This component of net assets consists of constraints placed on net asset use through external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation. It is comprised of assets, net of related liabilities, that are required to be set aside by revenue bond covenants for operations, maintenance and renewal and replacements.
- Unrestricted net assets - This component of net assets consists of net assets that do not meet the definition of "restricted" or "invested in capital assets, net of related debt." Administrative expenses are paid with the use of unrestricted resources.

The accounting policies of the Authority conform to generally accepted accounting principles applicable to governmental units. The Authority complies with generally accepted accounting principles and applies all relevant Government Accounting Standards Board (GASB) pronouncements. In addition, the Authority applies Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board opinions issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements, in which case, GASB prevails. The Authority has elected not to follow FASB pronouncements issued since that date.

Use of Estimates

Preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
December 31, 2007

Summary of Significant Accounting Policies:

Cash and investments:

Cash deposits consists of demand and time deposits with financial institutions and are carried at cost. For purposes of the statement of cash flows, all cash deposits and highly liquid investments with an original maturity of three months or less when acquired are considered to be cash equivalents.

Restricted Assets:

Certain proceeds of the Sewer Revenue Bonds, as well as resources set aside for their repayment, are classified as restricted assets on the statement of net assets because their use is limited by applicable bond covenants. The Authority is required to hold one year's worth of debt service payments under this classification.

Revenues and Expenses:

Revenues and expenses are distinguished between operating and nonoperating items. Operating revenues generally result from providing services in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are sewer usage fees from West Brandywine and Cain Township and tapping fees from West Brandywine Township.

Operating expenses include the costs associated with the engineering, administrative expenses and depreciation on capital assets. All revenues and expenses not meeting these definitions are reported as nonoperating revenues and expenses.

Use of Restricted/Unrestricted Net Assets:

When an expense is incurred for purposes for which both restricted and unrestricted net assets are available, the Authority's policy is to apply restricted net assets first.

Capital Assets:

The Authority defines capital assets as assets with an initial, individual cost of more than \$5,000 and an estimated useful life in excess of one year.

Capital assets of the Authority are recorded at either their actual cost or estimated historical cost. Donated assets are value at their estimated fair value on the date donated. Depreciation of all exhaustible capital assets is charged as an expense against their operations. Depreciation is computed using the straight-line method over estimated asset lives as follows:

| | |
|-------------------|-------------|
| Collection System | 50 years |
| Equipment | 5 -15 years |

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)

December 31, 2007

Summary of Significant Accounting Policies:

Major additions and betterments are capitalized while expenses for maintenance and repairs that do not add value to the asset or materially extend asset lives are charged to operations as incurred.

Deposits

Custodial Credit Risk:

Custodial credit risk is the risk that in the event of a bank failure, the government's deposits may not be returned. The Authority does not have a policy for custodial credit risk on deposits. At December 31, 2007, the carrying amount of the Authority's deposits was \$282,673 and the bank balance was \$46,467. Of the bank balance, \$46,467 was covered by federal depository insurance and the collateral held by the depository's agent was not in the Authority's name and the remaining balance of \$236,206 was in the form of U.S. Treasury obligation money market mutual funds and not subject to custodial credit risk.

At December 31, 2006, the carrying amount of the Authority's deposits was \$230,844 and the bank balance was \$59,055. Of the bank balance, \$59,055 was covered by federal depository insurance and the collateral held by the depository's agent was not in the Authority's name and the remaining balance of \$172,699 was in the form of U.S. Treasury obligation money market mutual funds and not subject to custodial credit risk.

Capital Assets

A summary of changes in the Authority's capital assets is as follows:

At December 31, 2007 and 2006, respectively, the accumulated costs of constructing the sewer system, including costs capitalized, were:

| | 2007 | | | |
|--------------------------|----------------------|-------------------|-------------|--------------------|
| | Beginning Balance | Additions | Deletions | Ending Balance |
| Equipment | \$9 179 | \$ - | \$ - | \$9 179 |
| Collection system | 5 915 989 | 64 636 | - | 5 980 625 |
| Accumulated depreciation | <u>(1 224 541)</u> | <u>(119 631)</u> | - | <u>(1 344 172)</u> |
| Net capital assets | <u>\$4 700 627</u> | <u>(\$54 995)</u> | <u>\$ -</u> | <u>\$4 645 632</u> |

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
December 31, 2007

Summary of Significant Accounting Policies:

| | 2006 | | | Ending Balance |
|--------------------------|----------------------|--------------------|-------------|--------------------|
| | Beginning Balance | Additions | Deletions | |
| Equipment | \$ - | \$9 179 | \$ - | \$9 179 |
| Collection system | 5 915 989 | - | - | 5 915 989 |
| Accumulated depreciation | <u>(1 105 565)</u> | <u>(118 976)</u> | - | <u>(1 224 541)</u> |
| Net capital assets | <u>\$4 810 424</u> | <u>(\$109 797)</u> | <u>\$ -</u> | <u>\$4 700 627</u> |

Sewer Revenue Bonds:

On August 1, 2002, West Brandywine Township issued General Obligation Notes, Series of 2002, in the aggregate principal amount of \$5,200,000, divided into two series, one to finance the Township's building and park project in the amount of \$4,550,000 and the other to finance the Authority's Friendship Village Sewer Project in the amount of \$650,000. The notes carry a variable interest rate with repayment beginning August 1, 2004 and ending August 1, 2027. As of December 31, 2007 and 2006, the interest rate was 3.77 percent and 2.71 percent, respectively.

Also on August 1, 2002, the Authority entered into a subsidy agreement with the Township for the repayment of the Authority's portion of the notes (\$650,000). All subsidy repayments (principal and interest payments) are to be made from the Authority's revenue from the sewer system.

On April 15, 2003, the Authority issued Guaranteed Sewer Revenue Bonds, Series of 2003, in the principal amount of \$2,155,000 with interest varying from 2.0 percent to 4.2 percent. The bonds are scheduled to mature beginning December 1, 2004 until December 1, 2021 and are guaranteed by West Brandywine Township and revenues from the sewer system.

The following is a summary of changes in long-term debt for the years ended December 31, 2007 and 2006, respectively.

| | 2007 | | | Amounts Due in One Year |
|---|------------------------|--------------------|-------------------------|-------------------------------|
| | Outstanding 1/01/07 | Retirements | Outstanding 12/31/07 | |
| General Obligation Notes, Series of 2002 | \$570 000 | (\$25 000) | \$545 000 | \$25 000 |
| Sewer Revenue Bonds, Series of 2003 | <u>1 895 000</u> | <u>(105 000)</u> | <u>1 790 000</u> | <u>100 000</u> |
| Totals | <u>\$2 465 000</u> | <u>(\$130 000)</u> | <u>\$2 335 000</u> | <u>\$125 000</u> |

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
December 31, 2007

Sewer Revenue Bonds, (Continued):

| | 2006 | | | Amounts Due in One Year |
|---|------------------------|--------------------|-------------------------|-------------------------------|
| | Outstanding 1/01/06 | Retirements | Outstanding 12/31/06 | |
| General Obligation Notes, Series of 2002 | \$590 000 | (\$20 000) | \$570 000 | \$25 000 |
| Sewer Revenue Bonds, Series of 2003 | <u>1 995 000</u> | <u>(100 000)</u> | <u>1 895 000</u> | <u>105 000</u> |
| Totals | <u>\$2 585 000</u> | <u>(\$120 000)</u> | <u>\$2 465 000</u> | <u>\$130 000</u> |

Revenue from the sewer system includes the following:

- (1) All sewer service charges and other charges, including tapping fees, connection and assessment charges imposed or collected by the Authority, in connection with the operation of the sewer system.
- (2) Government grants made available to the Authority in connection with the operation of the sewer system, to the extent that they may be legally pledged.
- (3) Interest earned on all funds of the trust indenture, to the extent that interest is available for deposit in the revenue fund.
- (4) All other amounts derived by the Authority in any manner from the sewer system, to the extent that they may be legally transferred to the revenue fund.

Sewer Revenue Bonds mature as follows:

| <u>For the Year Ending December 31,</u> | <u>Interest Rates</u> | <u>Principal Payments</u> | <u>Interest</u> |
|---|---------------------------|-------------------------------|------------------|
| 2008 | 2.00% | \$100 000 | \$64 265 |
| 2009 | 2.60% | 105 000 | 61 965 |
| 2010 | 3.00% | 110 000 | 59 235 |
| 2011 | 3.15% | 110 000 | 55 935 |
| 2012 | 3.30% | 115 000 | 52 470 |
| 2013 - 2017 | 3.40% to 3.90% | 640 000 | 199 830 |
| 2018 - 2021 | 3.90% to 4.20% | <u>610 000</u> | <u>64 665</u> |
| Totals | | <u>\$1 790 000</u> | <u>\$558 365</u> |

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

NOTES TO FINANCIAL STATEMENTS (CONTINUED)
December 31, 2007

Sewer Revenue Bonds. (Continued):

The General Obligation Notes mature as follows:

| <u>For the Year Ending December 31.</u> | <u>Interest Rates</u> | <u>Principal Payments</u> | <u>Interest *</u> |
|---|---------------------------|-------------------------------|-------------------|
| 2008 | 3.77% | 25 000 | \$20 547 |
| 2009 | 3.77% | 25 000 | 19 604 |
| 2010 | 3.77% | 25 000 | 18 662 |
| 2011 | 3.77% | 25 000 | 17 719 |
| 2012 | 3.77% | 25 000 | 16 777 |
| 2013 - 2017 | 3.77% | 125 000 | 69 746 |
| 2018 - 2022 | 3.77% | 145 000 | 44 300 |
| 2023 - 2027 | 3.77% | <u>150 000</u> | <u>16 401</u> |
| Totals | | <u>\$545 000</u> | <u>\$223 756</u> |

Risk Management:

The Authority has purchased commercial insurance policies for various risks of loss related to torts; theft, damage or destruction of assets; errors or omissions; injuries to employees; or acts of God. Payments of premiums for these policies are recorded as expenses of the Authority by the primary government. Insurance settlements have not exceeded insurance coverage in any of the past three years. There were no significant reductions in coverage compared to the prior year.

Contingent Liabilities:

The Authority is subject to various disputes and legal proceedings which arise in the normal course of its operations. In the opinion of management, the amount of ultimate liability with respect to these activities will not be material to the Authority's financial condition.

* Interest expense is based on the variable interest rate as of December 31, 2007, which is 3.77 percent.

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)

SUPPLEMENTARY INFORMATION

KIMMEL, LORAH & ASSOCIATES, LLP

CERTIFIED PUBLIC ACCOUNTANTS

June 17, 2008

INDEPENDENT AUDITORS' REPORT ON SUPPLEMENTARY INFORMATION

Board of Directors
West Brandywine Township Municipal Authority
Coatesville, Pennsylvania

Our audit of the December 31, 2007 financial statements of West Brandywine Township Municipal Authority, a component unit of West Brandywine Township, was conducted for the purpose of forming an opinion on those statements taken as a whole. The supplementary schedules on pages 20 and 21 are presented for purposes of additional analysis and are not a required part of the financial statements of West Brandywine Township Municipal Authority. Such supplementary schedules have been subjected to the auditing procedures applied in the audit of the basic financial statements, and, in our opinion, are fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

The balance sheet and the statement of revenues collected, expenditures paid and trust account balances of the trust funds have been prepared on the cash basis of accounting in accordance with provisions of the Trust indenture. It is not intended to present results of operations in conformity with accounting principles accepted in the United States of America.

Kimmel, Lorah & Associates, LLP
Certified Public Accountants

- 19 -

OAKS CORPORATE CENTER, 400 CRESSON BLVD, SUITE 210
PO BOX 979, OAKS, PA 19456

TEL 610-666-0450 FAX 610-666-1950

Member of
AICPA DIVISION FOR CPA FIRMS

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)
BALANCE SHEET
TRUST FUNDS
DECEMBER 31, 2007

| | 2003 Debt Service Fund | 2003 Debt Service Reserve Fund | 2003 Revenue Funds | Cash Basis Total |
|---|---------------------------------|--|--------------------------|------------------------|
| Trust Account Balances Composed as Follows: | | | | |
| Cash and cash equivalents | <u>\$ - 0 -</u> | <u>\$171 365</u> | <u>\$64 841</u> | <u>\$236 206</u> |
| Trust Account Balances Reserved as Follows: | | | | |
| For bondholders until applied in accordance with the Trust Indenture | <u>\$ - 0 -</u> | <u>\$171 365</u> | <u>\$64 841</u> | <u>\$236 206</u> |
| Total Trust Account Balances Reserved | <u>\$ - 0 -</u> | <u>\$171 365</u> | <u>\$64 841</u> | <u>\$236 206</u> |

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
(A Component Unit of West Brandywine Township)
STATEMENT OF REVENUES COLLECTED, EXPENDITURES PAID AND TRUST ACCOUNT BALANCES
TRUST FUNDS
DECEMBER 31, 2007

| | <u>2003 Debt Service Fund</u> | <u>2003 Debt Service Reserve Fund</u> | <u>2003 Revenue Funds</u> | <u>Cash Basis Total</u> |
|---|---|---|-----------------------------------|---------------------------------|
| Revenues Collected: | | | | |
| Investment income | \$ - | \$6 640 | \$7 029 | \$13 669 |
| Transfer from sweep account | - | - | 382 275 | 382 275 |
| Interfund transfers | <u>171 365</u> | - | <u>6 640</u> | <u>178 005</u> |
| Total revenues collected | <u>171 365</u> | <u>6 640</u> | <u>395 944</u> | <u>573 949</u> |
| Expenditures paid: | | | | |
| Transfer to sweep account | - | - | 110 835 | 110 835 |
| Bond principal | 105 000 | - | 25 000 | 130 000 |
| Bond interest | 66 365 | - | 22 737 | 89 102 |
| Cost of issuance/fiscal agent fees | - | - | 2 500 | 2 500 |
| Interfund transfers | <u>-</u> | <u>6 640</u> | <u>171 365</u> | <u>178 005</u> |
| Total expenditures paid | <u>171 365</u> | <u>6 640</u> | <u>332 437</u> | <u>510 442</u> |
| Deficiency of revenues collected under expenditures paid | - | - | 63 507 | 63 507 |
| Trust account balances, beginning | <u>-</u> | <u>171 365</u> | <u>1 334</u> | <u>172 699</u> |
| Trust account balances, ending | <u>\$ -</u> | <u>\$171 365</u> | <u>\$64 841</u> | <u>\$236 206</u> |

Exhibit 6

EXHIBIT 6
FUNDING REQUEST STATEMENT

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

West Brandywine Township Municipal Authority on behalf of the Municipalities of West Brandywine Township, Caln Township, Valley Township, and Sadsbury Township request your consideration of H2O PA funding in the amount of twenty million dollars (\$20,000,000.00) to be used to acquire sewage treatment capacity at the PAWC Coatesville Treatment Plant.

Exhibit 7

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY

Incorporated 1995
198 Lafayette Road Coatesville, Pennsylvania 19320
Phone - 610-380-8200 Fax - 610-384-4934

Chairman - Carl S. Lindborg
Secretary - Charles H. Hossack
Asst. Sec./Treas. - Wilbur C. Adams



Vice-Chairman - William R. McAdoo
Treasurer - William L. Goins
Manager - Ronald A. Rambo, Jr.

February 11, 2009

Commonwealth Financing Authority
Steven Kaplan, Chairman
PA Department of Community and Economic Development
Center for Business Financing- Site Development Division
H2O PA Program
400 North Street, 4th Floor
Harrisburg, PA 17120-0225

RE: Letter of Compliance with Comprehensive Land Use Plan

Dear Mr. Kaplan:

As a Township Municipal Authority, there is no direct planning component. Serving as both Authority and Township Manager, I have discussed this project with the appointed members of the Authority and the elected officials of the Township.

The Authority has taken the time to discuss this plan to ensure that it is consistent with the long term planning of the Authority to provide the best available sewer service to the residents of West Brandywine Township. In the same respect, the Board of Supervisors has determined that what is being pursued by the Authority is in the best interest of the Township residents and that it is in order with what is noted in the Township's Act 537 Plan and Comp Plan.

The acquisition of sewer plant capacity will provide the ability to further control future needs of the Township. Should you have any questions, please do not hesitate to contact the Township office.

Thank you.

Sincerely,


Ronald A. Rambo, Jr.
Authority Manager

xc: WBMA Board
WBT Board of Supervisors
James W. MacCombie, P.E.
File

skf11-09

Exhibit 8

WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY

Incorporated 1995

198 Lafayette Road Coatesville, Pennsylvania 19320

Phone - 610-380-8200 Fax - 610-384-4934

Chairman - Carl S. Lindborg
Secretary - Charles H. Hossack
Asst. Sec./Treas. - Wilbur C. Adams



Vice-Chairman - William R. McAdoo
Treasurer - William L. Goins
Manager - Ronald A. Rambo, Jr.

West Brandywine Township Municipal Authority Resolution – 03-2009

Be it RESOLVED, that the West Brandywine Township Municipal Authority of Chester County hereby request an H2O PA grant of \$20,000,000 from the Commonwealth Financing Authority to be used for Acquisition of Sewage Plant Capacity for Contributing Municipalities by and through the formation of a Regional Municipal Authority.

Be it FURTHER RESOLVED, that the Applicant does hereby designate Carl S. Lindborg, Chairman and Charles Hossack, Secretary as the official(s) to execute all documents and agreements between the West Brandywine Township Municipal Authority and the Commonwealth Financing Authority to facilitate and assist in obtaining the requested grant.

I, Charles Hossack, duly qualified Secretary of the West Brandywine Township Municipal Authority, County of Chester, PA, hereby certify that the forgoing is a true and correct copy of a Resolution duly adopted by a majority vote of the Authority Members at a special meeting held February 5, 2009 and said Resolution has been recorded in the Minutes of the West Brandywine Township Municipal Authority and remains in effect as of this date.

IN WITNESS THEREOF, I affix my hand and attach the seal of West Brandywine Township Municipal Authority, this Fifth day of February, 2009

West Brandywine Township Municipal Authority

County of Chester

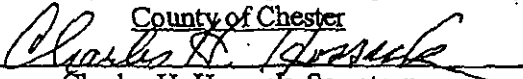

Charles H. Hossack, Secretary

Exhibit 9

EXHIBIT 9
APPROVAL AND PERMITS

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

Due to the nature of this project it is not feasible to obtain approvals and permits from the various agencies until after the formation of a joint authority. It is anticipated that the acquisition of the various permits should be minimized by the recent undertaking of an substantial expansion of the plant.

Exhibit 10

EXHIBIT 10

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

**There are no Federal or state court agency orders, consent decree's,
or new permit discharge requirements imposed after January 1, 2007**

Exhibit 11

EXHIBIT 11
ANNUAL USER RATES

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

| <u>TOWNSHIP</u> | <u>USER RATE</u> | <u>NUMBER OF USERS</u> |
|-----------------|--|------------------------|
| WEST BRANDYWINE | \$7.00/1,000 | 861 |
| SADSBURY | \$60/YR FLAT RATE PLUS \$8.00/1000 GAL | 923 |
| CALN | \$324.00/YR. | 5,000 |
| VALLEY | \$93.00/QTR FOR A WELL \$75.00/QTR FOR 1 ST 10,000 GAL. PLUS \$4.50/1,000 GAL | 2,358 |

Exhibit 12

EXHIBIT 12

TAP-IN FEES

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

| <u>TOWNSHIP</u> | <u>TAP-IN FEE</u> |
|-----------------|---|
| WEST BRANDYWINE | \$1818 OR \$2952 DEPENDING ON THE SERVICE AREA PLUS A \$2,000 PAWC RESERVATION FEE (AS APPLICABLE FOR FUTURE CONNECTION, PER ADMINISTRATIVE LAW JUDGE |
| SADSBURY | \$2,451.02 |
| CALN | \$2,700 |
| VALLEY | \$972.92 |

Exhibit 13

810-356-9550
FAX 610-356-5032

Herbert E. MacCombie, Jr., P.E.

CONSULTING ENGINEERS & SURVEYORS, INC.
1000 PALMERS MILL ROAD
MEDIA, PA 19063

James W. MacCombie, P.E., P.L.S.
Herbert E. MacCombie, III, Technician

REPLY TO:
P.O. BOX 118
BROOMALL, PA 19008-0118

February 9, 2009

Ms. Evelyn Walker
Chief Management Officer
Office of Commissioners
2 North High Street
West Chester, PA 19380

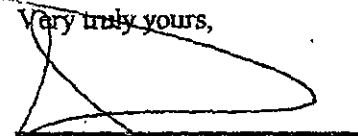
Re: Department of Community and Economic Development
H2O PA Grant Application for the
West Brandywine Township Municipal Authority

Dear Ms. Walker,

Please be advised that West Brandywine Township Municipal Authority is applying for a grant from the Department of Community and Economic Development under the H2O Program to support the "Acquisition of sewage plant capacity for contributing municipalities by and through the formation of a Regional Municipal Authority". Caln Township, Valley Township and Sadsbury Township are the other municipalities that will be participating in this endeavor. A copy of the project narrative is enclosed for your use.

Please feel free to contact Dennis O'Neill, P.E. of my office should you have any questions pertaining to this notification.

Very truly yours,


James W. MacCombie, P.E.
West Brandywine Township
Municipal Authority Engineer

Copy: Ronald Bailey, Chester County Planning Commission
Ronald Rambo, Jr., WBTMA

EXHIBIT DRK - 4R

**TABLE IV-1
FLOWS FOR PAWC TREATMENT FACILITY
(gallons per day)**

| | 2004 Chapter 94 Report | Additional Flow 2009 | Total Flow 2009 | Additional Flow beyond 2009 | Total Flow beyond 2009 |
|---|---------------------------|-------------------------|--------------------|--------------------------------|---------------------------|
| Cain | 185,074 | 439,163 | 624,237 | 175,763 | 800,000 |
| Coatesville * | 1,679,591 | 457,013 | 2,136,604 | 987,000 | 3,123,604 |
| East Fallowfield | 74,607 | 243,600 | 318,207 | 28,088 | 346,295 |
| Highland | 0 | 25,725 | 25,725 | 30,713 | 56,438 |
| Parkesburg | 451,416 | 156,450 | 607,866 | 105,788 | 713,654 |
| Sadsbury | 71,862 | 261,188 | 333,050 | 143,588 | 476,638 |
| Valley | 594,160 | 476,963 | 1,071,123 | 468,877 | 1,540,000 |
| West Brandywine | 164,653 | 400,313 | 564,966 | 270,034 | 835,000 |
| West Cain | 3,289 | 161,700 | 164,989 | 86,100 | 251,089 |
| West Sadsbury | 41,951 | 18,113 | 60,064 | 145,425 | 205,489 |
| Veterans Hospital | 74,271 | 0 | 74,271 | 0 | 74,271 |
| Bulk Haulers | 8,198 | 41,802 | 50,000 | 50,000 | 100,000 |
| Total | 3,349,072 | 2,682,030 | 6,031,102 | 2,491,376 | 8,522,478 |
| 5-Year Average from 2004 CH. 94 Report | 2,972,000 | | 5,654,030 | | 8,145,406 |
| Coatesville Adjustment | | | | | (722,006) |
| Proposed I/I Reduction | | | | | 300,000 +/- |
| Recommended Plant Capacity | | (YR 2017) | | | 7.0 MGD |

*Coatesville Flow Projections

Year 2005 to 2009 flow increase = 457,013 gpd

Post 2009 flow increase = 987,000 gpd

Total Increase = 1,444,013 gpd

Year 2017 flow = 1,679,591 gpd + 50%(1,444,013 gpd) = 2,401,598 gpd

Year 2027 flow = 2,401,598 gpd + 50%(1,444,013 gpd) = 3,123,604 gpd

Adjustment between year 2017 and 2027 = 722,006 gpd

EXHIBIT DRK - 5R



Pennsylvania Department of Environmental Protection

2 East Main Street
Norristown, PA 19401
December 20, 2005

RECEIVED
DEC 27 2005
CORPORATION

Southeast Regional Office

Phone: 484-250-5970
Fax: 484-250-5971

Mr. Jean Krack
City of Coatesville
One City Hall Place
Coatesville, PA 19320

Ms. Lisa A. Myers
Sadsbury Township
PO Box 261
Sadsburyville, PA 19369

Ms. Wendy A. Keegan
Parkesburg Borough
329 West First Avenue
Parkesburg, PA 19365

Mr. David Leavitt
East Fallowfield Township
2264 Strasburg Road
Coatesville, PA 19320

Ms. Karen E. Chandler
Valley Township
890 West Lincoln Highway
PO Box 467
Coatesville, PA 19320

Mr. Gary L. Dunlap
West Caln Township
721 West Kings Highway
PO Box 175
Wagontown, PA 19376-0175

Ms. Janet Bugar
Caln Township
253 Municipal Drive
Thorndale, PA 19372

Ms. Cynthia Mammarella
West Sadsbury Township
6400 North Moscow Road
Parkesburg, PA 19365

Mr. Ronald A. Rambo, Jr.
West Brandywine Township
198 Lafayette Road
Coatesville, PA 19320

Ms. Patricia Montgomery
Highland Township
100 Five Points Road
Coatesville, PA 19320

Re: Act 537 Planning Requirements
Pennsylvania American Water
Company Coatesville Wastewater
Treatment Plant Expansion

Dear Ladies and Gentleman:

As discussed at our meeting with PA American and the 10 contributory municipalities on December 7, 2005, at West Brandywine Township, the Department is sending this letter to clarify municipal sewage facilities planning responsibilities for the proposed expansion of the PA American Coatesville Wastewater Treatment Facility.

Under the Pennsylvania Sewage Facilities Act 537 and the pursuant regulations, Title 25, Chapter 71, of the Pennsylvania Code, sewage facilities planning is a municipal responsibility. Each municipality is required to develop and implement an official plan for the municipality that addresses existing and future needs throughout your municipality (71.11). You are also required to review and revise your official plan whenever needs change (71.12(a)).

Although two or more municipalities may submit a joint plan, or a single municipality may prepare a joint plan on behalf of several municipalities (71.12(b)), or a consulting firm can be contracted to prepare the plan on behalf of all involved municipalities, the Department is recommending that each municipality prepare an individual plan. This will assure that any deficiencies or delays in an individual municipal plan will not delay planning approval for other municipalities. We are making the following recommendations to guide you in preparing the required sewage facilities planning, in order to assure that municipal needs in all municipalities are met and the proposed expansion to the treatment facility is appropriately sized.

1. URS Corporation, on behalf of PA American, has already prepared a draft joint plan that has been distributed to each municipality. The plan proposes an expansion of the treatment facility to 7.0 MGD. URS has based the expansion on existing contracts between PA American and developers in your communities. Instead, the expansion must be based on the needs analyses required from each municipality under Act 537.
2. We recommend that each municipality prepare an individual plan that includes a municipal-wide needs analysis, and discusses and selects alternatives and the required financial commitments to meet those needs consistent with the plan content requirements of Section 71.21. Your plan must also meet all the review, adoption, and implementation requirements of Section 71.31.
3. The Department is currently trying to determine what the existing sewer service areas are in each of your municipalities. Please provide us immediately with any mapping or information that your municipality currently has available that may assist us in making this determination, including the Department's approval letter of any official plan or planning module that extended your sewer service area.
4. Each municipality that does not have a current municipal-wide plan that is being implemented must complete an official plan. Sewer service and growth areas must be delineated, as well as areas designated for agriculture or low density development. EPA, DEP, and your Chester County planning agencies all support land application in the municipalities around Coatesville, rather than stream discharge for two reasons: We need to renew our water resources and keep groundwater levels high, and the soils around Coatesville and in much of Chester County are the best in Pennsylvania for land application. Therefore, your plans must fully address land application alternatives.

5. Other specific issues that must be addressed include ordinances covering the operation and maintenance of individual grinder pumps in sewer service areas and the operation and maintenance of on-lot systems in non-sewer service areas.
6. Conveyance capacity in sewer service areas must also be addressed. Because of the multiple municipalities involved in conveyance, it is extremely important that each municipality identify their own needs as soon as possible and share that information with all upstream and downstream municipalities, as well as with PA American, so that appropriate capacity evaluations and planning for conveyance system expansion, if needed, may be included in the official plans of all affected municipalities.
7. We provided copies of the Department's Consent Order and Agreement (CO&A) with PA American for each municipality at our meeting on December 7, 2005. Because of the urgent needs in the area, the Department requests all municipalities to immediately contact me at 484-250-5172, or Donna Ulan Smith at 484-250-5179 to set up a Plan of Study meeting in early January with your consultants, so that your supervisors can authorize the required planning, unless your municipality already has a Plan of Study approved by the Department. Please note that the Department reimburses municipalities for 50% of their cost in completing the plan after the plan has been approved by the Department, if we have previously approved your Plan of Study.
8. The CO&A includes a copy of PA American's November 2005 Connection Management Plan (CMP), which has been approved by the Department. The CO&A also requires PA American to submit quarterly revisions to the CMP, which will allow contributory municipalities and developers with projects in the current sewer service area to obtain approvals of Sewage Facilities Planning Modules that will bring the projected flows at the wastewater treatment facility up to a capacity of 4.6 million gallons per day, prior to the facility expansion. To assist PA American in preparing these quarterly CMP revisions, each municipality should identify all known projects proposing to connect to PA American and work with their developers to provide to PA American and the Department (1) each project's status in the Act 537 sewage planning process; and (2) each project's status in land development process, including whether there has been application or receipt of requisite approvals or permits from the municipality, and (3) the developer's projected build-out schedule. In similar situations, developers without allocations that are ready to move ahead have been able to purchase allocations that were available in other municipalities, if those municipalities were willing to sell allocations they had purchased that were in excess of their pre-expansion needs.
9. Please be advised that the Department intends to issue permits to PA American for the expansion by the end of 2006. Municipalities that have not completed Act 537 planning may risk obtaining any additional capacity in the expansion.

December 20, 2005

10. Also, please note that East Fallowfield Township and Caln Township have already submitted township-wide plans to the Department that are under review. West Brandywine Township has also submitted versions of official plan revisions; however, those proposals do not cover the entire township and may not comply with all of the Chapter 71 requirements referenced above.

If you have any questions, please feel free to contact me at 484-250-5172, or Donna Ulan Smith at 484-250-5179.

Sincerely,



Clinton Cleaver
Sewage Planning Specialist Supervisor
Water Management

cc: Chester County Planning Commission
Chester County Health Department
Mr. Gerald DeBalko - Pennsylvania American Water Company
✓ Mr. Stan Corbett - URS Corporation
Planning Section

EXHIBIT DRK - 6R

CHAPTER IV

EXISTING AND PROJECTED SEWAGE NEEDS

A. EXISTING AND APPROVED DEVELOPMENT

The Pennsylvania Department of Environmental Protection (DEP), by letter dated December 20, 2005, had requested that each tributary municipality clearly define their existing PAWC service area. This determination was to be based upon areas delineated in DEP approved Act 537 Plans, DEP approved planning modules, existing connections, and projects shown on Table A2 of the November 2005 Connection Management Plan. PAWC has since worked with each municipality to accurately define the existing service areas per the DEP criteria, and the result of this effort is indicated in Map IV-1. It should be noted that, due to the dynamic nature of ongoing planning efforts, some properties are shown that do not meet the original criteria specified, and the Map IV-1 legend and notes clarify status for all such areas.

B. PROJECTED SEWAGE FLOWS

The ten tributary municipalities within PAWC's service area have completed, or are in the process of completing, individual municipal Act 537 Plans to further document existing and proposed sewage needs and service areas. Future sewage needs information commensurate with the level of each individual municipality's Act 537 planning efforts have been incorporated into this Plan. Municipalities which have not completed an Official Act 537 Plan have, at a minimum, provided data on future connections in order to assist in the determination of projected sewage flows.

Additionally, PAWC has been actively maintaining and submitting quarterly connection management plans (CMPs). Each CMP presents a summary of all existing connections to the PAWC system, updated as necessary for consistency with the specific quarterly report. The CMPs also contain detailed information regarding the number of connections associated with approved planning modules and the expected timing of these future connections, generally falling within the 0 to 5 year time frame per general Chapter 94 standards for sewage facilities planning. Beyond the 5 year projection, the CMPs also detail the total number of all currently known connection requests from developers and municipalities.

Table IV-1 summarizes all available projected flow data for the tributary municipalities. Data sources for the municipal flow projections includes not only the current individual planning efforts, but information provided by the municipalities to PAWC for use in past and current CMPs, various contractual agreements between PAWC and the municipalities, and communications with municipal officials. Baseline flows and connections are predicated upon the PAWC 2007 Chapter 94 Report and 4th Quarter 2007 CMP, which can be found in Appendix D. Contractual agreements between PAWC and the municipalities can be found in Appendix G.

As a result of PAWC's ongoing studies and documentation of flows from certain developments within their collection and conveyance system, DEP approved the following sewage flows per equivalent dwelling unit for new connections to the PAWC WWTP, through correspondence dated May 29, 2008 (Appendix H):

| | |
|--------------------------|---------|
| All Single Family Units | 225 gpd |
| Senior Housing | 200 gpd |
| Townhouses (1-2 Bedroom) | 200 gpd |
| All Apartment Units | 200 gpd |

Accordingly, the flow projections provided in Table IV-1 have been calculated using the above noted flows per EDU, as permitted by the level of detail provided through the referenced sources.

Given the disparate flows per EDU values historically used by the tributary municipalities, and the varying level of detail for the projected flows, additional explanation of the specific sources and methodology utilized to arrive at the Table IV-1 flows are presented below for each municipality:

Caln Township

The Caln Township Act 537 Plan, dated October 2005, determined the Township's ultimate PAWC treatment facility sewage needs to be 800,000 gpd, which is also the contracted capacity per the March 10, 2005 Agreement with PAWC. Timing associated with these flows was obtained from the Township's "2007 Chapter 94 Annual Report Municipal Wasteload Management", dated February, 2008. Pursuant to Exhibit 3 of this document, Caln's 0-5 year additional flows were calculated at 346,475 gpd after converting from 250 gpd/EDU to 225 gpd/EDU, for the 411 known residential units. The remaining 16 "non-residential" EDU's were maintained at 250 gpd/EDU per Caln's original representation. Additionally, presuming the start-up of the Municipal Drive pump station in 2011, the 0-5 year needs includes an additional 250,000 gpd beginning that same year. The Municipal Drive pump station will re-direct that volume of sewage flow from the DARA system to the PAWC system per Caln's Act 537 Plan.

Flows beyond 5 years were extrapolated in a linear fashion to an ultimate need of 800,000 gpd in 20 years.

Regardless of the specific sewage needs projections discussed above and illustrated in Table IV-1, it is noted that Caln's allocated capacity in the PAWC WWTP is in accordance with the current agreement with PAWC, which can be found in Appendix G. This agreement provides for a current capacity allocation of 570,000 gpd, which will increase to 800,000 gpd after the plant expansion is complete, subject to Caln funding for collection system improvements defined therein.

City of Coatesville

Projected sewage needs for Coatesville were prepared by the City's Engineer, Yerkes Associates, Inc., in a document entitled "City of Coatesville Act 537 Plan Revision", dated June 28, 2006. Table 1a of this document contains the projected total connections for the years 2005 through 2010, with an additional number of connections utilized to determine an "ultimate buildout". In order to re-align Table 1a with the 2007 baseline of PAWC's Table IV-1, PAWC's CMP's for the years 2006 and 2007 were evaluated, and it was determined that a total of 4 EDU's from listed developments were connected during this period. Also, on October 21, 2008 representatives of PAWC, URS, and the City of Coatesville met to discuss and refine the information presented on Table 1a. As a result of this meeting, additional details regarding the specific use and timing of several proposed developments was acquired, and facilitated the application of DEP's approved flows per EDU correspondence. Table IV reflects these refinements and indicates the 0-5 year additional flows as 245,950 gpd, the 5-10 year additional flows as 81,584, and the additional flows beyond 10 years at 165,641 gpd. Total ultimate flows are indicated as 2,437,054 gpd.

East Fallowfield Township

Projected sewage flows for East Fallowfield Township were developed from correspondence with the Township's Wastewater Engineer, dated June 19, 2008. These projections are included herein as a reasonable estimate until such time as the Township can complete its Act 537 Plan.

In summary, the referenced correspondence indicates East Fallowfield's future needs to consist of all projects listed in the PAWC CMP, as well as 148,750 gpd for office/industrial zoned property along Route 82. Table A3 of the 4th quarter 2007 CMP indicates the total East Fallowfield flows within 5 years as 155,025 gpd. Pursuant to documentation from the developer, flows from the Providence Hill development, occurring within the 0-5 year period, were recalculated assuming 200 gpd for 81 proposed townhomes. This adjustment resulted in a new 5 year total of 153,000 gpd, as represented in Table IV-1. The total CMP flows remaining for connection beyond 5 years were 37,350 gpd; these flows were extrapolated in a linear fashion and assuming a 20 year build out to estimate timing within in the 5-10 year and beyond 10 year time frames. The additional commercial flows not represented in the CMP are also included in the beyond 10 year category, pursuant to direction from the Township Wastewater Engineer.

On December 10, 2008 DEP issued a planning approval letter for the Cardinal Drive Sewer Extension. This project, which will generate an estimated 17,750 gallons per day through the connection of 78 existing residences to the PAWC system, is included in the above noted future needs calculations of the Township.

Highland Township

Highland Township has recently undertaken preparation of its Act 537 Plan, a draft of which is expected sometime in 2009. The Township Engineer has preliminarily indicated that the total current flows projected in Table A3 of the CMP, or 48,375 gpd, will be indicated as the 5 year total needs. No additional information has been provided to estimate needs beyond this period. The Table IV-1 flows reflect the preliminary information provided.

Parkensburg Borough

The Parkensburg Borough Engineer provided a "Capacity Needs Analysis -- Future Additional Sanitary Sewage Flows", dated June 2006. This document was subsequently updated by the ARRO Group, Inc. and incorporated a new timeline with anticipated connections beginning in 2008; this updated document was utilized for the PAWC planning projections contained in Table IV-1. Both Parkensburg needs analysis documents can be found in Appendix I.

The Parkensburg needs analyses provided specific flows per EDU for residential senior housing (150 gpd / EDU), residential conventional housing (225 gpd / EDU) and non-residential facilities (262 gpd / EDU). Pursuant to the DEP flows / EDU correspondence, all indicated known uses were recalculated at 200 gpd / EDU for senior housing, townhomes, and apartments. Residential housing remained unchanged at 225 gpd / EDU, as well as non-residential facilities at 262 gpd / EDU (presumed to be future industrial and / or commercial use).

Total needs beyond the 0-5 year interval were projected in a linear fashion over the 5-10 year needs column and the ultimate needs in the beyond 10 year column, assuming a 20 year build-out.

Sadsbury Township

Sadsbury Township's current approved Act 537 planning provides for PAWC flows of 410,750 gpd, consistent with the current agreement with PAWC which can be found in Appendix G. Additional Sadsbury Township Act 537 planning is anticipated to address additional future sewage needs. The future needs represented in Table IV-1 are in accordance with preliminary planning projections provided by the Township Engineer via correspondence dated June 16, 2008.

The 0-5 year needs were based upon the total of Sadsbury's current contract flows of 410,750 gpd, the Sadsbury Commons development generating an estimated 42,600 gpd, and the connection of the proposed Turkey Hill Market contributing an additional 1,750 gpd. Pursuant to Sadsbury's Engineer, the remaining future needs were divided equally between the 5-10 year needs column and the additional flows beyond 10 years column. It should be noted that an amendment to the current Sadsbury Township agreement with PAWC would be needed to provide for all Sadsbury flows indicated on Table IV-1.

Valley Township

The current representation of needs presented in Table IV-1 reflects the information contained in Valley's Draft Act 537 Plan Table N-2, included in the October 2008 submission to PaDEP.

The detailed nature of the narrative portion of Valley's Draft Act 537 Plan provided for the adjustment of flows from listed developments pursuant to DEP's May 29, 2008 correspondence. The noted adjustments resulted in a new 0-5 year additional flow volume of 547,550.

The remaining 150 EDUs of the Heagy tract, scheduled for connection within the 5-10 year timeframe, were similarly recalculated at the above noted 200 gpd / EDU, resulting in a new 5-10 year total needs of 72,788 gpd. Connections beyond the 5-10 year timeframe remained unchanged at 198,000 gpd.

Considering the above noted adjustments, Valley's ultimate needs are currently indicated at 1,440,890 gpd. Valley Township's current agreement with PAWC, which can be found in Appendix G, provides for 1,140,000 gpd capacity with the ability to increase to a 1,540,000 gpd capacity.

West Brandywine Township

Previous West Brandywine Township Act 537 planning provided for a total PAWC flow of 345,000 gpd. Additionally, the West Brandywine Township Act 537 Special Study, Culbertson Run Road/Swinehart Road/Route 322 Study Area, as prepared by ARRO Consulting, Inc., was deemed approved by DEP on January 17, 2006. This document provided for a total of 217,057 gpd flows to the PAWC WWTP, although full implementation is subject to a number of DEP concerns currently under discussion with the Township.

West Brandywine has provided preliminary Township-wide Act 537 planning projections, divided into two subsets: west line flows, which are projected to be conveyed to the PAWC system in the vicinity of the intersection of Routes 82 and 340 at the north of Coatesville, and east line flows which will be conveyed through existing infrastructure locations. East line total 5 year flows are projected to total 646,985 gpd, which includes all existing approved flows, all 2006 deemed approved Special Study flows, and a 375 unit age restricted development. Within the 5-10 year needs, an additional 93,765 gpd is projected to comprise the total ultimate needs of 740,750 gpd for the East line. The West line flows within the 0-5 year time frame are currently estimated at 41,250 gpd. An additional 82,500 gpd is planned for the 5-10 year west line flows.

West Brandywine projects all the above noted growth to occur within 10 years. Therefore, no additional flows were noted in the additional flows beyond 10 years column.

The ultimate future needs considering all the above noted flows from both the East and West lines is equivalent to 864,500 gpd, all occurring within the next 10 years. Furthermore, this projection was based upon DEP's approved flows per EDU correspondence. The current amended agreement between PAWC and the West Brandywine Township Municipal Authority, which can be found in Appendix G, provides for a total flow of 533,100 gpd after WWTP expansion and any needed collection & conveyance system improvements are completed. Additional agreement amendment will be required to accommodate the ultimate Act 537 needs projections of the Township.

West Caln Township

The Township Engineer recently provided an amended Draft Act 537 Plan dated July 1, 2008, from which the estimate of future needs presented in Table IV-1 was based. Table 7 of West Caln's Draft Act 537 Plan presents an increase to 238,900 gpd in the 5 year total flows column, based upon the connection of the Calnshire West, Sandyhill, Lawrence, and Crane developments, in addition to "existing and miscellaneous" projects. Specific needs within this category are not defined. An additional 269,325 gpd is projected for the 5-10 year additional needs, and an additional 112,500 gpd for the additional needs beyond 10 years is presented. All noted flows have been calculated on an assigned 225 gpd / EDU, as no additional details regarding the nature or use of the listed developments has been provided.

West Sadsbury Township

The projected sewage flows for West Sadsbury Township are derived directly from the number of future connections indicated in the current draft of the pending Township Act 537 Plan, as provided by the Township's sewage planning consultant, and calculated at 225 gpd/edu. A review of PAWCs CMPs from both 2006 and 2007 indicated that of the listed projects, no new connections occurred. Therefore, the same projections presented on Table 9-1 of West Sadsbury's Draft Act 537 Plan were re-aligned to the 2007 baseline of PAWCs table IV-1. 0-5 year additional needs are presented at 196,875 gpd; 5-10 year additional flows are 134,775 gpd, and additional flows beyond 10 years are estimated at 109,800 gpd. Total ultimate needs over the assumed 20 year build-out are 487,804 gpd.

Veterans Administration Hospital

The hospital's average daily sewage flow in 2007 was 96,078 gpd. There are no plans for expansion of the facility and it is anticipated that the current flow will remain constant into the future. The source of this information is the 2007 Chapter 94 Report.

Bulk Haulers

This source of sewage was relatively minimal in 2007, and PAWC does not project any significant increase in the future. All future allocations to this source have correspondingly been maintained at the current level, as indicated in the 2007 Chapter 94 Report.

Flow Summary

Table IV-1 indicates a projected 5 year total flow of 6,437,328 gpd. As previously indicated, this figure represents all tributary municipality planning information currently available. While some of the required individual Act 537 planning efforts have been completed, there are also several tributary municipalities that have not completed the requisite planning, and their needs are presented on a preliminary basis.

The total Table IV-1 projected 10 year flows are 7,472,417 gpd, and total flows beyond 10 years are 8,743,144 gpd. For the purpose of this planning effort, PAWC proposes construction of a 7 million gallon per day (MGD) wastewater treatment plant, which the composite tributary municipality data suggests will adequately accommodate all projected municipal sewage needs for a period of between 5 and 10 years.

C. CONTRACTED CAPACITIES

In addition to the projected sewage flows, PAWC has committed capacity in the new Wastewater Treatment Plant by agreement with the bulk customer municipalities: Caln Township, Sadsbury Township, Valley Township, and West Brandywine Township. Table IV-1 notes the current contract capacities of these municipalities for reference. PAWC acknowledges that all bulk customers will have a capacity reservation in the expanded WWTP commensurate with all terms of executed contracts.

D. ALLOCATION OF WWTP CAPACITY

As noted above, capacity in the expanded PAWC WWTP will be allocated to bulk customer municipalities in accordance with all executed agreements; however, specific capacity allocations for the remaining municipalities are not feasible. Growth within the region may be constrained if individual municipal planning projections are used to define specific capacity allocations – a municipality that experiences more rapid growth than current projections suggest would not be able to accommodate that growth if needed WWTP capacity is available but allocated to another municipality which does not actually have the need. Flexibility in the overall planning effort must be realized to accommodate for future trends that may result in growth rates different from current projections.

To provide the maximum flexibility to accommodate growth throughout the tributary municipalities, capacity in the expanded PAWC WWTP will be allocated to projects within the non-bulk customer municipalities on a “first come, first serve” basis. Provided all necessary DEP approvals are in place, including applicable individual municipality Act 537 planning, projects will be allowed to connect within the available WWTP capacity at the time of any PAWC capacity determination made in response to a planning module or planning module exemption request submitted to PAWC for signature.

As discussed elsewhere in this planning effort, PAWC will initiate efforts to effectuate a WWTP expansion in excess of the currently proposed 7 MGD capacity whenever flows reach 80% of this capacity. It is anticipated that the timing of any needed future

expansion will accordingly provide for a seamless means of accommodating all future municipal sewage needs.

E. PROJECTED SERVICE AREAS

Map IV-2 depicts projected municipal service areas of PAWC. Since several municipalities have not clearly determined their future PAWC service areas through individual Act 537 planning at this time, this map does not represent all anticipated service areas. The PAWC composite proposed service area will be effectively amended through inclusion of additional areas as will be documented in the pending individual municipal planning efforts. The map legend presents additional information regarding the source data used in its preparation.

Exhibit DRK-6R

TABLE IV-1
EXISTING AND PROJECTED FLOWS FOR PAWC TREATMENT FACILITY
(Average Daily Flows in Gallons per Day)

| Tributary Municipality or Source | Existing Flows per 2007 Ch. 94 Report | 0-5 Year Additional Flows | 5 Year Total Flows | 5-10 Year Additional Flows | 10 Year Total Flows | Additional Flows Beyond 10 Years | Total Flows Beyond 10 Years | Contract Flows |
|----------------------------------|---------------------------------------|---------------------------|--------------------|----------------------------|---------------------|----------------------------------|-----------------------------|----------------|
| Caln ⁽¹⁾ | 173,330 | 346,475 | 519,805 | 92,464 | 612,269 | 187,731 | 800,000 | 800,000 |
| Coatesville ⁽¹⁾ | 1,943,879 | 245,950 | 2,189,829 | 81,584 | 2,271,413 | 165,641 | 2,437,054 | N/A |
| East Fallowfield ⁽²⁾ | 103,657 | 153,000 | 256,657 | 12,450 | 269,107 | 173,650 | 442,757 | N/A |
| Highland ⁽²⁾ | 225 | 48,150 | 48,375 | 0 | 48,375 | 0 | 48,375 | N/A |
| Parkesburg ⁽¹⁾ | 350,071 | 174,488 | 524,559 | 130,363 | 654,921 | 260,726 | 915,647 | N/A |
| Sadsbury ⁽²⁾ | 150,469 | 304,631 | 455,100 | 65,075 | 520,175 | 65,075 | 585,250 | 410,750 |
| Valley ⁽¹⁾⁽³⁾ | 622,552 | 547,550 | 1,170,102 | 72,788 | 1,242,890 | 198,000 | 1,440,890 | 1,540,000 |
| West Brandywine ⁽²⁾ | 139,974 | 548,261 | 688,235 | 176,265 | 864,500 | 0 | 864,500 | 533,100 |
| West Caln ⁽²⁾ | 20,861 | 218,039 | 238,900 | 269,325 | 508,225 | 112,500 | 620,725 | N/A |
| West Sadsbury ⁽¹⁾ | 48,749 | 196,875 | 245,624 | 134,775 | 380,399 | 109,800 | 487,804 | N/A |
| Veterans Hospital | 96,078 | 0 | 96,078 | 0 | 96,078 | 0 | 96,078 | N/A |
| Bulk Haulers | 4,064 | 0 | 4,064 | 0 | 4,064 | 0 | 4,064 | N/A |
| TOTALS | 3,653,909 | 2,783,419 | 6,437,328 | 1,035,089 | 7,472,417 | 1,273,122 | 8,743,144 | |

(1) Future flows derived from completed individual municipality Act 537 planning

(2) Future flows derived from preliminary individual municipality Act 537 planning

(3) Existing Flows per Valley Township Act 537 Plan

See Chapter IV narrative for detailed explanation of flow calculations

EXHIBIT DRK - 7R

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pa.P.U.C., et. al.

v.

PENNSYLVANIA-AMERICAN WATER COMPANY

Docket No. R-2008-232689

**DIRECT TESTIMONY OF
RONALD A. RAMBO, JR.
ON BEHALF OF THE MUNICIPAL SEWER GROUP**

August 18, 2008

1 Q. Please state your name, title and business address:

2 A. Ronald A. Rambo, Jr., Authority Manager of the West Brandywine Township
3 Municipal Authority. My business address is 198 Lafayette Road, Coatesville,
4 Pennsylvania. I am testifying on behalf of the Authority and the Township of West
5 Brandywine.

6
7 Q. Please state your educational and professional background.

8 A. I have a Degree in Landscape Architecture and Planning from West Virginia
9 University. Since graduating and becoming involved in municipal work, I have taken
10 numerous governmental classes for municipal managers and other related sewer classes
11 since the Authority was created.

12

13 Q. What are your present positions with the West Brandywine Township Municipal
14 Authority ("the Authority") and the Township of West Brandywine (the
15 "Township")?

16 A. I serve as the Manager for the West Brandywine Township Municipal Authority,
17 which is a separate entity established by the Township and also serve as the Township
18 Manager/Secretary/Treasurer, Recycling Coordinator and Assistant Zoning Officer of
19 West Brandywine Township.

20

21 Q. How long have you been affiliated with the Township and its Authority?

1 A. I have been affiliated with the West Brandywine Township Municipal Authority
2 since its' beginning in 1995 and West Brandywine Township in numerous positions since
3 1980, being appointed Township Manager in 1992.

4

5 Q. Have you examined the customer notice of rate increase, explanation of reasons
6 and tariff filed in April 2008 by Pennsylvania-American Water Company for its
7 Coatesville Wastewater Operations?

8 A. Yes I have.

9

10 Q. What would be the effect of this rate proposal if the Public Utility Commission
11 were to approve it?

12 A. The Authority would have to revisit its current rate structure to determine how
13 large an increase it would have to post for its own customers, in order to be able to
14 continue to provide sewer service to the residents who are currently on our sewer system.
15 The rate increase proposed by Pennsylvania-American, if approved, would represent a
16 \$110,000.00 increase in our sewer charges, compared with a total current Authority
17 budget of about \$ 545,873.00 per year, which would equate to a budget increase of over
18 21%. This increase in Pennsylvania American's charges does not take into account the
19 very large increase in a capacity fee also proposed by Pennsylvania-American. The
20 amount collected by this capacity fee will depend on how many developers and other new
21 customers seek and are successful in receiving new service.

22

1 Q. Is the Authority limited in the service it can render as a result of actions of
2 Pennsylvania-American?

3 A. Yes. The Authority at its inception purchased 345,000 gallons per day of sewer
4 capacity from the City of Coatesville Authority, which was acquired by Pennsylvania-
5 American Water Company in 2001. That contractual volume was sufficient to meet the
6 needs of developers who requested service, the Coatesville Area School District, the
7 Brandywine YMCA, the Brandywine Hospital, two areas of the Township known as
8 Friendship Village and Monacy Manor, and to provide some additional capacity for
9 future individual new or existing residents that would need service.

10 We committed the contractual volume of service to these users and to developers.
11 The Authority currently has no additional capacity to provide to developers that have
12 approached us for additional flow.

13

14 Q. When did the Authority recognize that its contractual commitment with
15 Pennsylvania-American would not meet its prospective needs?

16 A. At least as early as 2003. Bentley Developers requested that we consider
17 providing them sewer capacity for their projects in the Township. That Company, owned
18 by Tom Bentley, is a large developer well known in Chester County. Bentley has the
19 ability and does develop property in a number of municipalities in Chester County. They
20 approached the Township for approval of a project under our Conditional Use Process in
21 2001, and received Township approval in 2003 for town homes, apartments, single
22 homes and commercial amenities. Upon issuance of the Opinion and Orders by the

1 Township in 2003 we approached Pennsylvania-American Water Company for additional
2 sewer capacity for the Bentley projects.

3

4 Q. Was that the only reason for your request for more capacity from Pennsylvania
5 American?

6 A. No. We have an existing service area and treatment plant known as the
7 Kimberwick Sewer System in the vicinity of the proposed Bentley projects. This plant
8 does not have adequate capacity or room for expansion. The plan of the Authority and
9 Township was that we combine the Bentley projects and the Kimberwick Sewer System
10 and create one sewer rate district for the entire Township.

11 To carry this out the Authority and the Township had to secure the cooperation of
12 the Department of Environmental Protection ("the DEP") and revise the Township's Act
13 537 sewer plan to provide that the Kimberwick Plant be decommissioned and that all
14 flows go to Pennsylvania-American Water Company.

15

16 Q. What resulted from your 2003 contact with Pennsylvania-American?

17 A. Numerous meetings, first with Ian Crooks, and later joined by Brian Hassinger,
18 both employees of Pennsylvania-American Water Company. We talked with them
19 regarding their future plans to expand their plant so that we could buy additional
20 capacity. In March 2004 we met with Hassinger and Crooks relative to Pennsylvania-
21 American's Act 537 Plan and sewer capacity. Bentley confirmed to us that they were
22 willing to consider sewer capacity via Pennsylvania-American Water Company. Bentley
23 prepared the required special study for the Township, dealing with necessary changes to

1 our Act 537 Plan to permit Bentley, the Kimberwick System and other proposed
2 developments in the area to be diverted into Pennsylvania-American lines.

3

4 Q. What ensued after the special study was prepared?

5 A. The special study was submitted to DEP in 2004 for consideration and received
6 “deemed approval.”

7

8 Q. Did Pennsylvania-American indicate a willingness to take the additional sewage?

9 A. Yes they did. And we requested that they forward to us a draft addendum to our
10 sewage treatment agreement providing the needed increase in the capacity available to us.
11 After awhile, in order to help things along, I actually prepared a draft and sent it to
12 Pennsylvania-American in December 2004. We asked them to provide their version if
13 they did not accept ours.

14

15 Q. What steps were taken with respect to the need for a Section 537 Plan
16 amendment?

17 A. The Authority proposed and the Township approved preparation of an amendment
18 in December 2004. The amendment of our plan requires both the Township and
19 Pennsylvania-American to provide information and carry out necessary studies for
20 submission to DEP.

21 The DEP has advised that it will not act on a Township plan until the transmission
22 and treatment leg which is the responsibility of Pennsylvania-American is also
23 appropriately developed and submitted under Act 537. That has not yet occurred.

1 So at this time we still await Pennsylvania-American's segment of the Act 537
2 Plan so that we can move forward with the Bentley project and the Kimberwick transfer.

3

4 Q. Does the delay affect the Authority or the Township?

5 A. Yes. The Authority loses service revenue and the Township loses tax revenue
6 from the residential and commercial customers that only arrive after the projects are
7 built. The sums depend on the nature of the construction and the particular new
8 residents, but amount to hundreds of dollars per year per household.

9

10 Q. What happened to your 2004 draft addendum to sewage treatment agreement?

11 A. Our draft was two pages long and looked like previous amendments to existing
12 bulk service agreements that had been entered by the Coatesville Authority and later by
13 Pennsylvania American. Ours was rejected and a new addendum was submitted in
14 March of 2005 by Pennsylvania-American. But subsequently, Pennsylvania-American
15 abandoned that draft addendum that it had prepared.

16 Pennsylvania-American submitted another draft in May 2008. This too was
17 superseded when Pennsylvania-American gave us a further addendum in July 2008.

18

19 Q. Have other needs developed in addition to the Bentley project and the need to tie
20 in the Kimberwick system?

21 A. Yes. Further proposals arose for development within West Brandywine
22 Township near the Kimberwick System, the Bentley Projects, and the existing Friendship
23 Village Sewer District, and then onto the Pennsylvania American System. This led us to

1 present the need for additional flows for expansion to Pennsylvania American at the end
2 of 2004. A meeting was held with DEP in March 2005 to discuss this and other aspects
3 of our dealings with Pennsylvania-American. DEP has commenced holding periodic
4 meetings with Pennsylvania-American. In addition, I initiated a program of monthly
5 meetings of all ten municipalities whose wastewater is treated at Coatesville, and
6 Pennsylvania-American, in order to be informed as to their steps to address our needs and
7 that of others.

8

9 Q. Since 2005 and earlier, Pennsylvania-American has been operating under
10 Connection Management Plans filed with the DEP. Are you familiar with these
11 plans as they affect West Brandywine Township Authority?

12 A. Yes.

13

14 Q. Are you satisfied with the manner in which Pennsylvania-American has
15 administered these Connection Management Plans?

16 A. No. You must realize that until last year, Pennsylvania-American was not able to
17 handle even our committed contractual flow of 345,000 gallons per day. Nonetheless,
18 Pennsylvania-American was continuing to approve new connections for customers within
19 its service territory, while we were held up in regard to our existing capacity and new
20 capacity that we have been seeking since 2003. In my experience dealings with
21 Pennsylvania-American have been even slower since they entered the Consent Order and
22 Agreement with DEP in 2005 than before. When talking with representatives of
23 Pennsylvania American, they are not all on the same track.

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Q. Do you have an objection to the form of draft addendum that Pennsylvania-American has submitted to the Authority?

A. Although our counsel will have to advise us on the many terms of this long and complicated addendum, one aspect of it is very harmful to us. We have always contracted with Pennsylvania-American and Coatesville Water Authority for service stated in terms of gallons of flow. That leaves it to us to assure that we have the right service, that proper conservation measures are carried out by our customers, that we control infiltration and inflow in our lines vigorously, and that we assure that our capacity needs are met currently and prospectively, as the Township is required to do under Act 537.

Now Pennsylvania-American proposes to state our capacity in terms of equivalent dwelling units ("EDU"). However Pennsylvania American has changed the size of its EDU from time to time and could very well do so again in the future. At present, DEP has approved two different measures of EDU for Pennsylvania-American. We should not be subject to changing measures of the volume of service that we contract and pay for. We commit to service volumes based on our own planning and our own residential and commercial customer growth experience. Our customers do not exhibit the same EDU volume as the customers of other municipalities served by Pennsylvania American or the customers of Pennsylvania American itself.

Q. What additional service does the Authority presently seek from Pennsylvania-American?

1 A. In talking with representatives of Pennsylvania American and their consultant
2 assigned to work on their Act 537 Plan, we have requested an additional 520,220 gallons
3 per day of capacity be allocated to the West Brandywine Township Municipal Authority
4 over the next ten years. Of this volume, 217,057 gallons has been informally approved
5 for us by the DEP as a result of the Bentley special study that was submitted several years
6 ago. The remaining flows will be for future projects in the vicinity of the Friendship
7 Village Sewer District, as well as the Township and Authority establishing a second
8 sewer district to be established in the southwest section of the Township under our
9 updated Act 537 Plan.

10 In total, we have serious proposals to establish over 1,000 additional residential
11 dwelling units, as well as associated commercial development, within the expanded
12 sewer rate Friendship Village district (the combination of the current Friendship Village
13 Sewer District and Kimberwick Sewer District). The Township has given conditional
14 final approvals (depending, of course, on the availability of sewer service) for 291
15 residential dwelling units and the commercial units that will be developed along with
16 them. An additional 456 residential units are in the process of preliminary or final
17 planning approval at the Township. As soon as Pennsylvania-American completes its
18 part of the task, our existing 213 units in the Kimberwick area will be transferred to the
19 Coatesville Wastewater Operations. And there are other existing and proposed
20 developments that we anticipate, based on very strong indications of present or future
21 need.

22

1 Q. Is West Brandywine Township alone in having wastewater service problems such
2 as you describe?

3 A. No. As I noted, the Townships served by Pennsylvania American meet monthly
4 to review their needs and Pennsylvania American's progress in responding to them. The
5 three other bulk users, Caln Township Authority, Sadsbury Township and Valley
6 Township, are in need of additional service and could provide experience similar to ours
7 if asked.

8

9 Q. Has the lack of available wastewater transmission and treatment capacity hindered
10 the development of sewer lines within the Township?

11 A. Yes. In our subdivision and land development ordinance there is a section that
12 authorizes placement of capped sewer lines within a project, so that service can be readily
13 extended when piped sewer disposal becomes available. We have tried to utilize this
14 provision but failed because we could not indicate with any level of confidence when
15 service would become available from Pennsylvania American. So we have not been able
16 to achieve orderly sewer line extensions at locations where, due to the absence of
17 wastewater disposal capacity, we have had to approve on lot systems. Ultimately when
18 service becomes available, there will surely be higher costs to the Township and its sewer
19 customers of developing the sewer system.

20

21 Q. Do you have any further comment on the rate increase posted by Pennsylvania-
22 American?

1 A. Yes I have two comments. I manage a substantial wastewater utility operation
2 and know first hand that there is such a thing as inflation. But our Authority has never
3 considered doubling its rates (in fact, our rates have been stable for thirteen years, almost
4 as long as the Coatesville rates). I believe that Pennsylvania-American should not double
5 its rates in a single year, because of the impacts that has on our budgets, on all of its
6 customers, and on all of the customers we serve.

7 Second, the capacity charge increase puts us in extraordinary difficulty.
8 Developers, not knowing what the capacity charges may be in future periods, are
9 reluctant to sign up for service at this time. In the past, capacity was bought and paid for
10 in advance. Pennsylvania-American's plan, we have been told, is that in the future,
11 payment for additional capacity will be made when the actual connection takes place. A
12 developer would have difficulty knowing at the outset when that will occur, and of
13 course, has no way of knowing what the rate might be at that date.

14 Furthermore, I consider it very unfair and discriminatory for Pennsylvania-
15 American to add customers within its service territory but delay and prevent us from
16 increasing our service contract for years. Their customers came on at the old capacity
17 charge. Now that it projects opening up service to the bulk users, Pennsylvania American
18 wants to charge us and our customers a 500% increase in that capacity charge. For our
19 pent-up demand to be charged \$3,250 per unit I consider highly unreasonable and
20 discriminatory. I urge that no increase in the capacity charge should even be considered
21 until Pennsylvania American has satisfied that pent up demand.

22

EXHIBIT DRK - 8R

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF
PAUL R. HERBERT
ON BEHALF OF PENNSYLVANIA-AMERICAN WATER
COMPANY

DOCKET NO. R-2010-2166212

CONCERNING

COATESVILLE WASTEWATER OPERATIONS
COST OF SERVICE ALLOCATION

AND

CUSTOMER RATE DESIGN

AUGUST 26, 2010

RECEIVED

AUG 26 2010

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

RE: PENNSYLVANIA-AMERICAN WATER COMPANY
DOCKET R-2010-2166212
REBUTTAL TESTIMONY OF PAUL R. HERBERT

Line
No.

- 1 **Q. Please state your name and address.**
- 2 A. My name is Paul R. Herbert. My business address is 207 Senate Avenue,
3 Camp Hill, Pennsylvania.
- 4 **Q. By whom are you employed?**
- 5 A. I am employed by Gannett Fleming, Inc.
- 6 **Q. Are you the same Paul R. Herbert that submitted direct testimony in this**
7 **case?**
- 8 A. Yes. I submitted Statement No. 7 and Exhibit No. 7-A concerning the
9 proposed rate design for the Coatesville Wastewater Operations.
- 10 **Q. What is the subject of your rebuttal testimony?**
- 11 A. I will address the issues raised by OCA witness Scott Rubin, OSBA witness
12 Brian Kalcic, MSG witness Howard Solganick, and CBA witness Robert
13 Ambrose concerning cost allocation and rate design issues.
- 14 **Q. Please explain Mr. Rubin's cost of service issues.**
- 15 A. Mr. Rubin disagrees with the way I allocated the costs associated with I&J flow
16 to the retail classifications (non-bulk customers).

1 **Q. Do you agree with Mr. Rubin's description of I&I and the causes of I&I**
2 **flows?**

3 A. I would agree with his description and the various causes of I&I flow but I do
4 not agree with his description of how I&I costs should be allocated to the retail
5 classes.

6 **Q. What is the basis for your disagreement?**

7 A. Mr. Rubin places entirely too much emphasis on the amount of sewage flow
8 and the size of mains rather than the number of customers and the length of
9 mains required to serve those customers. For example, on page 6 of his
10 testimony, Mr. Rubin states that wastewater flow is used as a proxy for
11 responsibility for the size and length of sewer mains. I would agree that the
12 amount of wastewater flow (including I&I) affects the size of the main required,
13 however; the length of mains is directly related to the number of customers.

14 **Q. Why is the length of mains a major contributing factor of I&I flows?**

15 A. As Mr. Rubin correctly points out, the causes of I&I flows include groundwater
16 entering the system through broken pipes, defective pipe joints, illegal
17 connection of foundation drains, leaks through manholes and manhole
18 covers, and possible cross connections with storm sewers. All of these
19 causes of I&I flow are directly related to the length of mains as a result of the
20 number of customers connected to the system. In fact, they are the
21 predominant cause of I&I flow. When the collection system is extended to
22 add new customers, you have more pipe in the ground with the potential for
23 defective joints, added service laterals where additional joints are created,
24 additional manholes for potential leakage, additional property-owners who

1 may connect their downspouts or foundation drains, and additional storm
2 sewers that potentially could lead to cross connections.

3 **Q. Does I&I flow vary with the size of customers?**

4 A. Yes, partially, but to a lesser extent than the number of customers. That is
5 why I allocate 1/3 of I&I costs on the basis of flow and 2/3 based on the
6 number of customers. The 1/3 based on flow considers that larger customers
7 have larger connections and larger impervious areas such as roof tops and
8 parking lots that create more runoff. A portion of this runoff may find its way
9 into the sewer collection system. A proper storm water system would channel
10 this runoff away from the sewer collection system into streams and other
11 waterways.

12 **Q. How does Mr. Rubin allocate I&I costs?**

13 A. Mr. Rubin uses a 50/50 weighting of flow and number of customers primarily
14 because of a study I conducted for Ohio-American in 2007. In that study, I
15 used a 50/50 weighting based on available information and my understanding
16 of the causes of I&I at that time. However since that time, through further
17 research, I have obtained additional information about the causes of I&I flow
18 and learned that the text "Financing and Charges for Wastewater Systems"
19 uses the 1/3 flow, 2/3 customer in its illustrative cost allocation example. I
20 believe that the authors of this manual support the use of the 1/3 – 2/3
21 weighting as a reasonable guideline for cost allocation purposes.

1 **Q. How does Mr. Rubin allocate I&I costs related to his 50% portion related**
2 **to customers?**

3 A. He used meter equivalents to allocate such costs to reflect the size of the
4 customers.

5 **Q. Wouldn't the use of flow for the other 50% of I&I costs supposed to take**
6 **into account the size of the customer?**

7 A. Yes. Mr. Rubin has double-counted the effect of the size of customers in his
8 allocation of I&I costs.

9 **Q. Is there another reason that the use of meter equivalents is inappropriate**
10 **for allocating the customer portion of I&I costs?**

11 A. Mr. Rubin's use of meter equivalents allocates a disproportionate share to the
12 Large Industrial class which includes one large customer. When a customer
13 class includes just one customer, the cost allocation study must recognize the
14 specific costs incurred for that customer.

15 Mr. Rubin uses the customer's 16 water meters to determine meter
16 equivalents as the basis for allocation. However; there are only seven
17 wastewater connections that discharge to the system. Furthermore, what Mr.
18 Rubin is not aware that this customer is situated right next door to the
19 wastewater treatment plant, does not use any portions of the collection
20 system and uses only several hundred feet of the interceptor main. This
21 compares to over 400,000 feet of main in the rest of the system. It is not
22 logical to allocate over 8.5% of the I&I flow to one customer situated at the
23 treatment plant that uses less than one-half of one percent of the Company's
24 mains.

1 **Q. What do you conclude with respect to Mr. Rubin's cost allocation study**
2 **and revenue distribution recommendation?**

3 A. Mr. Rubin's method of allocating I&I costs and the results of his cost allocation
4 study must be rejected. The distribution of the revenue increase allowed in
5 this case should be based on the Company's study, not Mr. Rubin's.

6 **Q. What is Mr. Rubin's proposal with respect to the proposed residential**
7 **customer charge?**

8 A. Mr. Rubin recommends that the residential customer charge should not
9 exceed \$5.50 per month.

10 **Q. What is the Company's proposal?**

11 A. The Company proposed a monthly residential customer charge of \$20.00 per
12 month. The existing charge is \$4.50 per month.

13 **Q. Do you agree with Mr. Rubin's recommendation?**

14 A. No, I do not. Mr. Rubin excludes uncollectible accounts expense and costs
15 associated with I&I from the customer charge. I will address each of these
16 items separately.

17 Mr. Rubin excluded the costs associated with uncollectible accounts of
18 \$262,172 from his customer charge. As a result nearly 100% of these costs
19 would be recovered in the volumetric charge under his proposal. (Mr. Rubin's
20 2.15% factor would include only about 9 cents per month in his customer
21 charge).

22 **Q. Do uncollectible accounts vary with usage?**

23 A. No, they do not. Uncollectible accounts vary with the number of customers
24 and the occurrence of uncollectible accounts closely tracks how many

1 customers are on the system, not the total volume. Large commercial and
2 industrial customers for example typically pay their bills on time and do not
3 cause any uncollectible account expense, but Mr. Rubin would have such
4 customers pay a disproportionate share of uncollectible accounts expense by
5 recovering such costs almost entirely in the volumetric charge. By including
6 such costs in the customer charge, however, each customer pays a small
7 amount each month to cover uncollectible expense and customers with
8 relatively higher usage are not required to pay a disproportionate amount of
9 such costs.

10 **Q. Please explain Mr. Rubin's reason for excluding I&I costs from the**
11 **customer charge.**

12 A. Mr. Rubin excludes I&I costs from the customer charge because he contends
13 that I&I costs are not incurred when a new customer is added to the system.

14 **Q. Do you agree with that statement?**

15 A. No, I do not. As I explained earlier in my testimony, the causes of I&I flow are
16 directly related to adding new customers. In fact, they are the predominant
17 cause of additional I&I flow. When the collection system is extended to add
18 new customers, the system has more pipe in the ground with increased
19 potential for defective joints, added service laterals where additional joints are
20 created, additional manholes for potential leakage, additional property-owners
21 who may connect their downspouts or foundation drains, and additional storm
22 sewers that potentially could lead to cross connections. Mr. Rubin is not
23 correct that additional customers do not cause additional I&I.

1 **Q. How does Mr. Rubin reconcile allocating 50% of I&I costs based on the**
2 **number and relative size of customers without recovering any of these**
3 **costs in the customer charge?**

4 A. His allocation study and subsequent rate design really cannot be reconciled.
5 The I&I costs he allocates based on the number and relative size of
6 customers is subsequently recovered in his proposed volumetric charge,
7 which is internally inconsistent.

8 **Q. Is it proper to recover a portion of the costs associated with I&I flow in**
9 **the customer charge?**

10 A. Yes, it is. In the text "Financing and Charges for Wastewater Systems",
11 published by the Water Environment Federation (WEF), Chapter 8,
12 "Development and Design of a Schedule of Rates and Charges", discusses
13 fixed charges on pages 146 and 147, where it states:

14 "Finally, a meter charge and service charge may be combined
15 with a quantity allowance to establish a minimum charge. In
16 this case, a fixed charge could recover all or a portion of
17 volume-related costs (including infiltration and inflow [I/I] costs
18 allocated on a customer basis) as part of the minimum."
19

20 Further in the same chapter discussing fixed charges, on page 154, it
21 states:

22
23 "For those rate designs that include a fixed charge, additional
24 revenue stability may be achieved by recovering some of
25 those costs allocated to volume and strength parameters
26 through the customer charge. For example, I/I costs allocated
27 in proportion to customers are often recovered through the
28 fixed-charge component."
29

30 **Q. How do you propose to recover the costs associated with I&I flow?**

31 A. Consistent with the text, "Financing and Charges for Wastewater Systems", I

1 have allocated two-thirds of the costs associated with I&I flow to customer
2 charges and one-third to volume charges. The one-third of I&I costs to the
3 volume charge recognizes that larger customers have larger impervious areas
4 such as parking lots and roof tops which cause additional runoff.

5 The two-thirds allocation of I&I costs to the customer charge is
6 appropriate and properly reflects the cost causation of I&I flow and the fixed
7 cost recovery of such costs. The Company's proposed customer charge of
8 \$20.00 per month should be approved and Mr. Rubin's recommendation
9 should be rejected.

10 **Q. Are customer charges for sewer utilities in Pennsylvania common at this**
11 **level?**

12 A. Yes. See the attached Exhibit No. 7-R-1, which shows a summary of the
13 Commission-approved rates for Pennsylvania sewer utilities. The applicable
14 tariff pages are also attached. Most of the customer charges shown on the
15 summary far exceed the \$20.00 per month customer charge proposed for
16 Coatesville.

17 **Q. Please comment on Mr. Rubin's recommendation for low-income**
18 **customers.**

19 A. The Company proposed a customer charge for low income customers of
20 \$7.00 per month or 35% of the \$20.00 proposed residential customer charge.
21 This is a \$13.00 monthly reduction for low income customers and is consistent
22 with the Company's water tariff for low income customers.

23 Mr. Rubin suggests an alternative calculation for low income users
24 because his recommended customer charge of \$5.50 per month is too low.

1 At 35% of his \$5.50, the low income charge would be \$1.93 or only a \$3.57
2 reduction in the bill. This is another reason to reject Mr. Rubin's
3 recommendation. To remedy this, Mr. Rubin recommends a 15% reduction in
4 the total bill for low income customers. This method would produce different
5 reductions for each customer depending on the level of usage.

6 The Company's low income tariff is straight forward, is consistent with
7 the water tariff, and provides a significant and uniform reduction for each low
8 income customer. The Company's proposal should be approved and Mr.
9 Rubin's recommendation should be rejected.

10 **Q. Please address Mr. Kalcic's issues.**

11 A. Mr. Kalcic agrees with the Company's cost allocation and revenue distribution
12 proposal for this case. His only recommendation would be to adopt his
13 customer charges instead of those proposed by the Company.

14 **Q. Please address Mr. Kalcic's customer charges.**

15 A. Mr. Kalcic also recommends excluding I&I costs from the customer charge
16 and also supports customer charges that vary with the water meter size. For
17 the many reasons explained earlier in my rebuttal of Mr. Rubin, excluding all
18 *costs associated with I&I from customer charges is not proper or logical.* I will
19 not repeat those reasons again since they apply with equal weight to Mr.
20 Kalcic's proposal.

21 As far as setting customer charges that vary by meter size, the
22 Company informs me that to base a wastewater customer charge on the size
23 of the water meter would require extensive reprogramming and loading of
24 numerous rate schedules and would require a re-coding of every Coatesville

1 customer in the wastewater billing system. That would entail a significant
2 effort, with significant costs, for little incremental benefit. In order to avoid that
3 expenditure of resources, I based the proposed customer charge on an
4 average capacity ratio for each class because the class designation is already
5 included in the Company's wastewater customer database and does not
6 require additional re-programming.
7

8 **Q. Please address the cost allocation and rate design testimony of Howard**
9 **Solganick, representing the Municipal Sewer Group (MSG).**

10 A. Mr. Solganick recommends using a revised cost allocation study submitted in
11 response to MSG-2-4 and to use this study for the purposes of revenue
12 distribution. This revised study allocates capital costs based on historic flows
13 rather than the projected flows that I used in my original study.

14 **Q. What are the factors you used to allocate the capital cost associated**
15 **with the treatment plant and the conveyance system?**

16 A. I used Factor 3 based on projected average day flow and Factor 4 based on
17 projected peak day flow. Factor 3 allocates 46.02% of the costs related to
18 average flow to the Bulk class and Factor 4 allocates 41.57% of the costs
19 related to peak flow to the Bulk class. The Bulk Class in my study also
20 includes flows for the VA Hospital.

21 **Q. What did the MSG group anticipate to be its share of the treatment plant**
22 **capacity?**

23 A. Based on the MSG (West Brandywine, Caln, Valley and Sadsbury Townships)
24 grant application to the H2O PA Program for the "Acquisition of Sewer Plant
25 Capacity at the Pennsylvania American Water Company Coatesville

1 Treatment Plant”, MSG assumed that the participating municipalities would
2 contribute 52% of the plant’s capacity based upon sewage facility planning.
3 See attached Exhibit No. 7-R-2 that shows MSG’s Exhibit 2 included with the
4 grant application.

5 **Q. Do you agree with the use of the revised study submitted in response to**
6 **MSG-2-4?**

7 A. No I do not. The MSG-2-4 study does not reflect proper cost causation. The
8 plant was designed and built according to the capacity required for each
9 municipality. Therefore, it is proper to allocate the capital costs of the plant on
10 a projected flow basis. To use historic flows would unfairly allocate capacity in
11 the system to those classifications that do not require that capacity. My
12 allocation methodology results in a lower percentage allocation to the Bulk
13 class than what MSG anticipated in its grant application. Mr. Solganick’s
14 recommendation of using the MSG-2-4 study for revenue distribution should
15 be rejected.

16 **Q. Please respond to Mr. Ambrose’s testimony regarding revenue**
17 **distribution.**

18 A. Mr. Ambrose recommends closing the gap between allocated costs and
19 revenues by class over five rate proceedings.

20 **Q. How many years would be required to achieve cost of service under his**
21 **recommendation?**

22 A. Even assuming no more than two years between rate cases, it would take ten
23 years.

1 **Q. Is this a reasonable approach?**

2 A. No, it is not. What Mr. Ambrose does not realize is that there was a
3 movement toward cost of service in the 2008 rate case. Now we have a
4 reliable study on the amount of I&I costs and the class responsibility of those
5 costs. I see no justification, nor does Mr. Ambrose explain why, class
6 subsidies should continue for at least the next ten years. The effect of Mr.
7 Ambrose's recommendation would be to substantially increase the revenue
8 contribution from the Bulk Users. Mr. Ambrose's recommendation should be
9 rejected.

10 **Q. Does this complete your rebuttal testimony at this time?**

11 A. Yes, it does.

EXHIBIT NO. 7-R-1 (Coatesville)

Monthly Residential Rates for Sewer by Company

| Company Name | Flat Rate | Meter Size | Minimum Charge | EDU | Charge Per 1,000 Gallons | Usage Amount 1,000 Gallons |
|---|-----------|------------|----------------|---------|--------------------------|----------------------------|
| Cecil Wastewater Treatment Company Inc | \$ 34.79 | | | | | |
| Clean Treatment Sewage Company | \$ 58.47 | | | | | |
| Delaware Sewer Company | \$ 52.00 | | | | | |
| Glendale Yearound Sewer Company | \$ 20.90 | | | | | |
| Johnstown Regional Sewage | | | \$ 7.25 | | | 0-2,000 |
| | | | | | 3.62 | 2,000-13,333 |
| | | | | | 2.04 | 13,333-33,333 |
| | | | | | 1.23 | 33,333-66,667 |
| | | | | | 0.87 | 66,667-100,000 |
| | | | | | 0.76 | Over 100,000 |
| Little Washington Wastewater Company | | | | | | |
| Pinecrest Division - Inside Development | \$ 41.95 | | | | | |
| Pinecrest Division - Outside Development | \$ 50.00 | | | | | |
| Willistown Woods Division | | | \$ 42.00 | | 2.40 | |
| Gettysburg Division | | | \$ 44.00 | | 6.13 | |
| East Bradford Division | | | \$ 60.00 | | 7.66 | |
| Twin Hills Division | | | \$ 47.00 | | 1.76 | |
| Plumsock Division | | | \$ 60.00 | | 7.91 | |
| Media Division | | 5/8 | \$ 5.07 | | 3.20 | |
| | | 3/4 | \$ 7.20 | | 3.20 | |
| | | 1 | \$ 12.82 | | 3.20 | |
| | | 1 1/2 | \$ 28.94 | | 3.20 | |
| | | 2 | \$ 51.34 | | 3.20 | |
| | | 3 | \$ 115.60 | | 3.20 | |
| | | 4 | \$ 205.35 | | 3.20 | |
| | | 6 | \$ 461.88 | | 3.20 | |
| | | 8 | \$ 821.10 | | 3.20 | |
| Bridlewood Division - Family Homes | | | \$ 36.00 | | 1.52 | |
| Bridlewood Division - Townhomes | | | \$ 31.00 | | 1.52 | |
| White Haven Division - Metered | | | \$ 41.35 | per EDU | 1.20 | |
| White Haven Division - Unmetered | \$ 41.35 | | | per EDU | | |
| Eagle Rock Division - Step 1 | | | \$ 32.25 | per EDU | 1.20 | |
| Eagle Rock Division - Step 2 | | | \$ 35.50 | per EDU | 1.20 | |
| Thornhurst Division - Step 1 | | | \$ 36.00 | per EDU | 0.60 | |
| Thornhurst Division - Step 2 | | | \$ 46.75 | per EDU | 120.00 | |
| Thornhurst Division - Unmetered | \$ 36.00 | | | | | |
| Rivercrest Division | | | \$ 27.00 | | 5.02 | |
| Little Washington Division | | | \$ 67.00 | | 5.15 | |
| Laurel Lakes Division - Step 1 | | | \$ 36.00 | per EDU | 0.60 | |
| Laurel Lakes Division - Step 2 | | | \$ 44.00 | per EDU | 1.20 | |

Monthly Residential Rates for Sewer by Company

| Company Name | Flat Rate | Meter Size | Minimum Charge | EDU | Charge Per 1,000 Gallons | Usage Amount 1,000 Gallons |
|---|-----------|------------|----------------|---------|--------------------------|----------------------------|
| Deerfield Knoll Division | | | \$ 45.00 | | 3.37 | |
| CS Sewer Division | \$ 20.66 | | | | | |
| Peddlers View Division | | | \$ 49.00 | | 4.75 | |
| The Greens at Penn Oaks Division | | | \$ 90.00 | per EDU | 1.50 | |
| Newlin Green Division | | | \$ 90.00 | per EDU | 1.50 | |
| Woodloch Springs Division - Metered | | | \$ 47.00 | per EDU | 1.20 | |
| Woodloch Springs Division - Unmetered | \$ 47.00 | | | per EDU | | |
| Loren K. Dixon Sewer Works | \$ 15.00 | | | | | |
| Manwalamink Sewer Company - Flat Rate | \$ 26.50 | | | | | |
| Manwalamink Sewer Company - Metered Rate | | | \$ 10.00 | | 3.98 1.34 | 10,000 Over 10,000 |
| Regent Acres Mobile Home Park | \$ 30.75 | | | | | |
| Reynolds Disposal Company | \$ 27.57 | | | per EDU | | |
| School House Villages Wastewater Division | \$ 45.00 | | | per EDU | | |
| Schuylkill Haven Borough | | | | | 6.65 | |
| Pennsylvania Utility Company | | | \$ 18.94 | | 10.62 | |
| Wonderview Sanitary Facilities | \$ 35.65 | | | | | |

Cecil Wastewater Treatment
Company, Inc.
P.O. Box 253
Cecil, PA 15321-0253

Supplement No. 18 to
Sewage-Pa. P.U.C. 1
9th Revised Page No. 4
Canceling 8th Revised Page No. 4

SCHEDULE OF FLAT RATES (I)

1. This Schedule shall Apply to All Residential Customers.
The Rate shall be \$34.79 a Month.

RECEIVED
TARRANT

(I) Indicates Increase

Issued: January 31, 1996

Effective: February 1, 1996

By: Edward E. Monaco
President

Ed Monaco

SCHEDULE OF RATES

Application:

This schedule is available to all residential and non-residential customers, as indicated below.

Charges:

(1) Residential Service: (I) (C)

Available

A charge of \$23.25 per month per lot shall be payable by the owner of each lot which is located within the development known as Marcel Lake Estates and upon which no structure has been erected. Such charge shall be payable irrespective of the quantity of sewage discharged.

A charge of \$58.47 per month per lot shall be payable by the owner of each lot which is located within the development known as Marcel Lake Estates and upon which a structure has been erected. Such charge shall be payable irrespective of the quantity of sewage discharged.

The term "structure" shall be deemed to mean any building connected to the sewage collection system and containing any one or more of the following fixtures: a wash stand, a flush toilet, a bathtub, a shower or a kitchen faucet.

| | | |
|---|------------------|---------|
| (2) <u>Non-residential Service:</u> | <u>Per Month</u> | (I) (C) |
| Each Outdoor Pool and Bathhouse | \$58.47 | |
| Each Clubhouse | \$58.47 | |
| Each Association Office or Maintenance Building | \$58.47 | |
| Each Bathhouse at Each Lake Site | \$58.47 | |

Terms of Payment:

Charges will be billed payable monthly. (C)

- (I) Indicated Increase
- (C) Indicates Change

SCHEDULE OF RATES

Application:

This schedule is available to all residential customers as indicated below.

Charges:

(1) Residential Service:

A charge of \$52.00 per month per lot shall be payable by the owner of each lot which is located within the development known as Wild Acres and upon which a structure has been erected which is connected to the Delaware Sewer Company facilities. Such charge shall be payable irrespective of the quantity of sewage discharged.

The term "structure" shall be deemed to mean any building connected to the sewage collection system and containing any one or more of the following fixtures: a wash stand, a flush toilet, a bathtub, a shower or a kitchen faucet.

Terms of Payment:

Charges will be billed payable monthly.

SCHEDULE OF RATES (I)

Application

This schedule is available to all customers.

| <u>Rates</u> | <u>Net Rate</u> <u>Per Quarter</u> | <u>Net Rate</u> <u>Per Month</u> |
|---|---------------------------------------|-------------------------------------|
| Utilization at Homesites of 5 or less spigots | \$62.70 | (\$20.90) |
| Each additional spigot at homesite above 5 | 8.64 | 2.88 |
| Campsites with sewer lines extended thereto | 41.80 | 13.93 |
| Campsites which utilize dump station | 16.59 | 5.53 |
| Ski Slope | 486.23 | 162.07 |
| Swimming Pool up to 10,000 gallons capacity | 66.76 | 22.25 |
| Swimming Pool over 10,000 gallons capacity | 332.80 | 110.93 |
| Each Spigot other then Homesite or Campsite | 17.41 | 5.80 |
| Dump Station | 272.03 | 90.68 |

Pursuant to the terms of the sales agreement utilized in connection with the sale of homesite lots within the Company's service territory, and pursuant to beneficial restrictive covenants filed of record on the Company's service territory, homesite lot owners are obligated to pay a charge when sewer lines are extended to their homesite lots and upon which no structure has been erected. Such charge, as established hereby, is \$24.00 per lot per quarter and shall be paid irrespective of the fact that sewage is not discharged.

Terms of Payment

Charges will be billed and payable quarterly, or monthly (C)
at the option of the customer.

(I) Indicates Increase
(C) Indicates Change

Issued: May 23, 1997

Effective: June 1, 1997

Supplement No. 6 to
Sewer - Pa. P.U.C. No. 1

SCHEDULE OF RATES AND CHARGES**Rates for Sewer Service (Treatment)**

There is hereby imposed upon each property served by Johnstown Regional Sewage (JRS) and having the use thereof, a quarterly sewer rent or charge payable as hereinafter provided, for the use, whether direct or indirect, of JRS's system, based on the rates hereinafter set forth. All owners connected to JRS's system shall be billed according to the following schedule of sewer rates and the billing practice of JRS, by determining the total number of billing units for which such owners are responsible, and the following charges shall be imposed for each such billing unit:

QUARTERLY SEWER RATES, TO BE BILLED MONTHLY

| SEWAGE VOLUME | RATES |
|----------------------------|--------------------------|
| 0 - 6,000 gallons /3 | \$21.74 Minimum /3 |
| 6,000 - 40,000 gallons | \$3.62 per 1,000 gallons |
| 40,000 - 100,000 gallons | \$2.04 per 1,000 gallons |
| 100,000 - 200,000 gallons | \$1.23 per 1,000 gallons |
| 200,000 - 300,000 gallons | \$0.87 per 1,000 gallons |
| ALL OVER - 300,000 gallons | \$0.76 per 1,000 gallons |

Sewage for properties not served by a metered public water connection shall receive an average bill. JRS reserves the right to have a meter installed and read to compute actual water consumed.

ADDITIONAL CHARGES AND FEES**Accounting and Clerical Fees**

Returned Check Fee \$35.00

Inquiry Fee (Lien Status) \$15.00

Inquiries made to and check payable to JRS as administrative subcontractor.

SHUT OFF FEES (based upon agreements with local water suppliers):

Greater Johnstown Water Authority \$25.00 - includes both turn-off and turn-on

Southwest Central Water Authority \$50.00 - includes both turn-off and turn-on

Jackson Township Water Authority \$50.00 - includes both turn-off and turn-on

East Taylor Township Water Authority \$50.00 - includes both turn-off and turn-on

Highland Sewer and Water Authority \$25.00 - includes both turn-off and turn-on

SCHEDULE OF RATES

Meter Service

(I)

Minimum Charge - for all metered customers.

| <u>Customer Charge</u> | |
|------------------------|----------------|
| <u>Quarterly</u> | <u>Monthly</u> |
| \$ 125.85 | \$ 41.95 |

Pinecrest Unmetered Rates:

Residential-Inside Pinecrest Development \$41.95 per month per equivalent dwelling unit

Residential-Outside Pinecrest Development \$50.00 per month per equivalent dwelling unit.

Pinecrest Commercial Agreements:

Commercial- The Pinecrest commercial contracts have not been increased in this rate filing because they are not tariff customers. The Company will negotiate escalations to the contracts separately when warranted.

(I) Indicates Increase

Little Washington Wastewater Company
Willistown Woods Division

SUPPLEMENT NO. 53
10
SEWER-PA.P.U.C.NO. 1
FOURTH REVISED PAGE NO. 4A
CANCELING THIRD REVISED PAGE NO. 4A

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers for which no minimum allowance is given. (I)

| <u>Customer Charge</u> | | |
|------------------------|-------------------|----------------|
| <u>Quarterly</u> | <u>Bi-Monthly</u> | <u>Monthly</u> |
| \$ 126.00 | \$ 84.00 | \$42.00 ✓ |

Consumption Charges: (I)

Wastewater will be charged for at the following rates:

For water used

\$2.40 / 1,000 gallons

Multiple Apartment Billing (Willistown Woods Area Only): (I)

For apartments that have multiple units and are metered through a master meter, the customer charge shall be calculated by multiplying the customer charge shown above by the number of dwelling units in the apartment being metered. There is no minimum allowance in this division. Therefore, all consumption shall be charged at the \$2.40 per thousand gallon rate.

(I) Indicates Increase

SCHEDULE OF RATES

Meter Service

(I)

Customer Charge - for all metered customers for which no minimum allowance is given.

| | <u>Customer Charge</u> | |
|-------------|------------------------|----------------|
| | <u>Quarterly</u> | <u>Monthly</u> |
| Residential | \$132.00 | \$44.00 ✓ |
| Commercial | \$252.00 | \$84.00 |

Consumption Charges:

Waste Water will be charged for at the following rates:

For all water used

\$6.13 / 1,000 gallons

(I) Indicates Increase

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers.

Customer
Charge
Monthly
\$ 60.00 ✓

(I)

Consumption Charges:

Waste Water will be charged for at the following rates:

For all water used

\$7.66 / 1,000 gallons

(I)

(I) Indicates Increase

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers.

(1)

Minimum Charge

Quarterly Monthly

\$ 141.00 \$ 47.00 ✓

Consumption Charges:

(1)

Wastewater will be charged for at the following rates:

For all water used

\$1.76 / 1,000 gallons

Plumsock Division

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers.

Customer
Charge
Monthly

(I)

\$ 60.00 ✓

Consumption Charges:

Wastewater will be charged for at the following rates:

For all water used

✓
\$7.91 / 1,000 gallons

(I)

(I) Indicates Increase

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers.

| <u>Size</u> | <u>Customer Charge</u> | | <u>(1)</u> |
|-------------|------------------------|----------------|------------|
| | <u>Quarterly</u> | <u>Monthly</u> | |
| 5/8" | \$ 15.21 | \$ 5.07 ✓ | |
| 3/4" | 21.60 | 7.20 ✓ | |
| 1" | 38.46 | 12.82 ✓ | |
| 1 1/2" | 86.82 | 28.94 ✓ | |
| 2" | 154.02 | 51.34 ✓ | |
| 3" | 346.80 | 115.60 ✓ | |
| 4" | 616.05 | 205.35 ✓ | |
| 6" | 1385.64 | 461.88 ✓ | |
| 8" | 2463.30 | 821.10 ✓ | |

Consumption Charges:

Wastewater will be charged for at the following rates:

For water used in excess of the minimum allowance →

✓
\$3.20 / 1,000 gallons

(1) Indicates Increase

Little Washington Wastewater Company

Bridlewood Division

SCHEDULE OF RATES

Metered Rate Service

(C)(I)

Residential Customers:

Customer Charge-Single Family Homes \$36.00 per month

Customer Charge-Townhomes \$31.00 per month

Commercial Customers:

Customer Charge-Apartment Complex \$8,344.00 per month

Customer Charge-Childrens World Daycare \$262.00 per month

Consumption Charge:Residential customers \$1.52 per thousand gallons

(C) Indicates Change

(I) Indicates Increase

Little Washington Wastewater Company

White Haven Division

SCHEDULE OF RATES
White Haven Borough Metered Service (C)(I)

Residential Customers:

| | |
|-----------------------|-----------------------------|
| Customer Charge | \$41.35 per month per EDU |
| Consumption Charge | \$1.20 per thousand gallons |
| Unmetered Residential | \$41.35 per month per EDU |

Commercial Customers:

| | |
|--|-----------------------------|
| Class A Charge | \$62.50 per month per unit |
| Class B Charge | \$37.50 per month per unit |
| Class C Charge | \$25 per month per unit |
| Class D Charge | \$41.35 per month per unit |
| Unmetered Commercial | \$41.35 per month per unit |
| Consumption Charge (Class D charge only) | \$1.20 per thousand gallons |

Kidder Township Metered Service (I)

Kidder Township \$750.00 per year per EDU (O&M & debt service)

Municipal Service Contracts

| | |
|------------------------|--|
| Dennison Township | \$240.00 per year per EDU (O&M fee only) |
| East Side Borough | \$352.00 per year per EDU (O&M fee & debt service) |
| Penn Lake Park Borough | \$240.00 per year per EDU (O&M fee only) |
| Foster Township | \$348.00 per year per EDU (O&M fee only) |

Please note that the municipal service contracts will be negotiated separately with the municipalities at the appropriate time.

(C) Indicates Change
(I) Indicates Increase

Little Washington Wastewater Company

Eagle Rock Division

SCHEDULE OF RATES

Metered Service

(C)(I)

All Residential metered customers.

| | | <u>Customer Charge Monthly</u> |
|---------|--------------------|--|
| Step 1: | Residential | \$32.25 per month per EDU |
| | Consumption Charge | \$1.20 per thousand gallons |
| Step 2: | Residential | \$35.50 per month per EDU |
| | Consumption Charge | \$1.20 per thousand gallons |

Commercial metered Customers.

| | | <u>Customer Charge Monthly</u> |
|---------|----------------------|--|
| Step 1: | Eagle Rock Inn | \$516 per month |
| | Eagle Rock Lodge | \$161.25 per month |
| | Eagle Rock Clubhouse | \$129 per month |
| | Other Commercial | \$32.25 per month per EDU |
| | Consumption Charge | \$1.20 per thousand gallons |
| Step 2: | Eagle Rock Inn | \$568 per month |
| | Eagle Rock Lodge | \$177.50 per month |
| | Eagle Rock Clubhouse | \$142 per month |
| | Other Commercial | \$35.50 per month per EDU |
| | Consumption Charge | \$1.20 per thousand gallons |

(I) Indicates Increase

Little Washington Wastewater Company

Thornhurst Division

SCHEDULE OF RATES

| | | <u>Metered Service</u> | (C)(I) |
|--|--------------------|----------------------------------|--------|
| Residential & Non-Residential Customers: | | | |
| Step 1: | Customer Charge | ✓ \$36.00 per month per EDU | |
| | Consumption Charge | ✓ \$.60 per thousand gallons | |
| Step 2: | Customer Charge | ✓ \$46.75 per month per EDU | |
| | Consumption Charge | ✓ \$1.20 per thousand gallons | |

Clubhouse or other building Based on peak flow usage converted to an EDU basis

Unmetered Service

| | | | |
|-------------|----------------------|------------------------|---------------------|
| Residential | Lot with no building | ✓ \$36.00 per month | \$20.00 per quarter |
|-------------|----------------------|------------------------|---------------------|

Note: In the event that two or more contiguous lots are merged in a deed into one lot under common ownership, the property owner shall be charged for one lot charge if the lot is vacant, or for no lot charge if a house has been established as a regular customer on the lot.

(C) Indicates Change

(I) Indicates Increase

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers.

(1)

| <u>Minimum Charge</u> | |
|-----------------------|----------------|
| <u>Quarterly</u> | <u>Monthly</u> |
| \$ 81.00 | \$ 27.00 |

Consumption Charges:

(1)

Wastewater will be charged for at the following rates:

For all water used

\$5.02 / 1,000 gallons

SCHEDULE OF RATES

Meter Service

Minimum Charge - for all Residential metered customers.

| | Customer Charge <u>Monthly</u> | (1) |
|-------------|--------------------------------------|-----|
| Residential | \$67.00 ✓ | |

Consumption Charges:

Wastewater will be charged for at the following rates:

| | | |
|--------------------|--------------------------|-----|
| For all water used | \$5.15 / 1,000 gallons ✓ | (1) |
|--------------------|--------------------------|-----|

Contract with East Brandywine Township Water & Sewer Authority (EBTWSA)

The EBTWSA owns its collection system and bills its customers independently. Suburban Wastewater Company bills EBTWSA for the use of its wastewater treatment plant at the following rate: \$5.49 per thousand gallons

(1) Indicates Increase

SCHEDULE OF RATES

Metered Service

(C)(I)

All Residential metered customers.

| | | <u>Customer Charge Monthly</u> |
|---------|--------------------|--|
| Step 1: | Residential | ✓ \$36.00 per EDU |
| | Consumption Charge | ✓ \$.60 per thousand gallons |
| Step 2: | Residential | / ✓ \$44.00 per EDU |
| | Consumption Charge | / ✓ \$1.20 per thousand gallons |

Note: The number of equivalent dwelling units (EDUs) to be billed for Non-Residential connections is determined by dividing the peak daily usage, based on measurements or reasonable estimates, by 230 gallons.

(C) Indicates Change

(I) Indicates Increase

SCHEDULE OF RATES

Metered Service

(I)

Metered Rate Charge - for all Residential metered customers

Customer Charge:

Monthly

Residential

\$45.00

Consumption Charge:

For all consumption

/\$3.37 per thousand gallons

(I) Indicates Increase

SCHEDULE OF RATES

Unmetered Service

Residential Service:

Flat Rate

✓
\$20.66 per month

Residential Availability Service:

Flat Rate

\$6.00 per month

Apartment Service:

Flat rate per equivalent dwelling unit \$20.66 per month
as specified by the Department of Environmental Protection at 25 PA Code Section 73.17

Commercial Service:

Flat rate per equivalent dwelling unit \$20.66 per month
as specified by the Department of Environmental Protection at 25 PA Code Section 73.17

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers for which no minimum allowance is given. (I)

| <u>Customer Charge</u> | | |
|------------------------|-------------------|----------------|
| <u>Quarterly</u> | <u>Bi-Monthly</u> | <u>Monthly</u> |
| \$147.00 | \$98.00 | \$49.00 ✓ |

Consumption Charges:

Waste Water will be charged for at the following rates:

For all water used

✓
\$4.75 / 1,000 gallons

(I)

(I) Indicates Increase

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers.

| | <u>Minimum Charge</u> | |
|---------|-----------------------|----------------|
| | <u>Quarterly</u> | <u>Monthly</u> |
| Per EDU | \$ 270.00 | \$ 90.00 ✓ |

Consumption Charges:

Wastewater will be charged for at the following rates:

For all water used

✓
\$1.50 / 1,000 gallons

Note that all Residential customers will be charged the customer charge based on one (1) EDU. When the service to the clubhouse is made, billing for the clubhouse will be based on five (5) EDUs. There are no other non-Residential customers served in this rate division. Should there be occasion in the future to serve other non-Residential customers, an equivalent EDU factor will be required to be determined.

SCHEDULE OF RATES

Meter Service

Customer Charge - for all metered customers.

| | <u>Minimum Charge</u> | |
|---------|-----------------------|----------------|
| | <u>Quarterly</u> | <u>Monthly</u> |
| Per EDU | \$ 270.00 | \$ 90.00 ✓ |

Consumption Charges:

Wastewater will be charged for at the following rates:

For all water used \$1.50 / 1,000 gallons ✓

Note that all Residential customers will be charged the customer charge based on one (1) EDU. There are no non-Residential customers served in this rate division at the present time. Should there be occasion in the future to serve other non-Residential customers, an equivalent EDU factor will be required to be determined.

SCHEDULE OF RATES

Metered Service

(C)(I)

All Residential metered customers.

| | <u>Customer Charge Monthly</u> |
|-----------------------|--|
| Residential | \$47.00 per month per EDU |
| Consumption Charge | \$1.20 per thousand gallons |
| Unmetered Residential | \$47.00 per month per EDU |

Commercial:

| | |
|---------------------------------------|-----------------------------|
| Woodloch Springs Clubhouse Facilities | \$282.21 per month |
| Other Commercial Charge | \$47.00 per month per EDU |
| Unmetered Residential | \$47.00 per month per EDU |
| Consumption Charge | \$1.20 per thousand gallons |

Note: The number of equivalent dwelling units (EDUs) to be billed for Non-Residential connections is determined by dividing the peak daily usage, based on measurements or reasonable estimates, by 230 gallons.

(C) Indicates Change

(I) Indicates Increase

RATES

Rule 12. The charge to each customer shall be a flat rate of Fifteen ~~(Fifteen)~~ (\$15.00) Dollars per month. (I)

No customer's sewer service will be shut off for non-payment of bills or violation of any rules without the company's first complying with the shut-off procedure prescribed by Public Utility Commission rules and regulations.

(I) Indicates increase

MANWALAMINK SEWER COMPANY

SCHEDULE OF RATES

Flat Rates

Non Metered Rates

| <u>Customer Category</u> | <u>Monthly Rates</u> |
|---|----------------------|
| 1. Residential Users | \$ 26.50 |
| 2. Commercial Users | |
| (a) Small Commercial Users | \$ 35.30 |
| (b) Large Commercial Users | |
| 1. Ridgetop Recreational Area Pool | \$ 73.50 |
| 2. River Village Recreational Area Pool | \$ 73.50 |
| 3. Sun Mountain Recreational Area Pool | \$ 73.50 |
| 4. Shawnee Mountain Ski Area | \$ 252.00 |

Application

This schedule is available to all customers.

Terms of Payment:

Bills for sewer service shall be due and payable monthly.

Issued: July 10, 2000

Effective: October 1, 2000

MANWALAMINK SEWER COMPANY

SCHEDULE OF RATES (continued)

Metered Rates (C)

Service Charge:

\$10.00 Charge Per Month ✓

Volume Charge:

In addition to a monthly service charge presented above, a volume charge based on metered water usage will be charged as follows:

| | Rate Per <u>1,000 Gallons</u> |
|--|----------------------------------|
| For the First 10,000 gallons per month | \$3.98 ✓ |
| For All Over 10,000 gallons per month | \$1.34 ✓ |

Multiple Unit Billing:

In cases where service is provided to several customers through a single meter, the bill is computed as follows:

Service Charge: Based on the actual number of units served through such meter

Plus: Volume charge computed by dividing the metered volume by the number of units. The dollar amount for a unit is calculated on the above rates and multiplied by the number of units.

Terms of Payment:

Bill for sewer service shall be due and payable monthly.

(C) Indicates Change

Issued: July 10, 2000

Effective: October 1, 2000

CRAIG E. DALLMEYER t/a
REGENT ACRES MOBILE HOME PARK

SEWAGE - Pa. P.U.C. No. 1
Original Page No. 3

SCHEDULE OF FLAT RATES

This Schedule is available to all Domestic and Commercial Customers. All Customers served under this Schedule shall be subject to a monthly charge of \$30.75. There are no industrial customers served by the Company.

Issued: October 30, 1985

Effective: February 1, 1986

SCHEDULE OF FLAT RATES (I)

Domestic and Commercial Service

Domestic Service

The following flat rate for domestic service shall apply to single family dwellings having their own unmetered water supply. Should a second facility (apartment, mobile home, etc.) be added to an existing service, same shall be billed as an individual domestic unit.

| | | |
|-------------------------|---------------------------------------|-----|
| <u>Domestic Service</u> | <u>Net Rate</u> <u>Per Quarter</u> | |
| Each Domestic Unit ✓ | \$82.70 | (I) |

Commercial Service

The quarterly rate for Commercial Service customers having their own source of unmetered water shall be as follows:

Basic commercial customer with no more than two (2) individual (men and women) rest rooms, one (1) floor drain, one (1) supply sink, one (1) utility sink and one (1) drinking fountain shall be classed as single commercial.

Each additional connection (stack tap or floor drain) shall be added at the rate indicated below.

Known heavy users, such as laundromats, car washes, or other water-intensive customers shall be billed at the same rates as metered customers with such quantities estimated on a monthly basis by a representative of Reynolds Disposal Company.

If such estimates are questioned by the customer, it shall be the responsibility of the customer to furnish metering devices with prior approval of such device by the Company.

| | | |
|---------------------------|--------------------|-----|
| <u>Commercial Service</u> | <u>Per Quarter</u> | |
| Each Commercial Unit | \$82.70 | (I) |

(I) Indicates Increase

- 8) Wastewater Service Charge per EDU: For EDU's actually allocated to and used by an improved property to discharge domestic sanitary wastewater during any portion of any billing period the annual wastewater service charge per EDU shall consist of a fixed charge of fifteen dollars (\$15.00) and an operating and maintenance charge of thirty dollars (\$30.00), for a total wastewater service charge of forty five dollars $\sqrt{(\$45.00)}$. ~~total~~ total per EDU
5. Wastewater Service Charge by Owner of Multiple Use Improved Property: In the case of multiple use improved property sharing a common connection to the wastewater system or a common structure, each such classification of improved property shall pay a separate wastewater service charge, as though it were housed in a separate structure and had a direct and separate connection to the wastewater system, computed in accordance with the provisions of this Part I, Section A, Sub-Section 4, a), 1).
6. Owner and/or Customer to Provide Information to Company:
- a) The owner of any improved property and/or customer discharging wastewater into the wastewater system shall furnish to the Company all information deemed essential or appropriate by the Company for the determination of all applicable wastewater service charges and surcharges. The costs of obtaining such information shall be borne by such owner of the improved property and/or customer. The Company reserves the right to review the disposition of customer wastewaters at any time service is in force.
- b) In the event of the failure of the owner and/or customer to provide adequate information, the Company shall estimate the applicable wastewater service charge and surcharge based upon available information or until such time as adequate information is received. There shall be no rebate of past payment if the owner and/or customer refusal to provide such information results in overpayment.

BACK

BOROUGH OF SCHUYLKILL HAVEN
SCHUYLKILL COUNTY, PENNSYLVANIA

ORDINANCE NO. 1120

AN ORDINANCE AMENDING ORDINANCE NO. 1012 SETTING FORTH AND REDUCING SEWER CHARGES FOR ALL CUSTOMERS OF THE PUBLIC SEWER COLLECTION, CONVEYANCE, AND TREATMENT SYSTEM.

BE IT ENACTED and ORDAINED by the Council of the Borough of Schuylkill Haven, Schuylkill County, Pennsylvania, and it is hereby enacted and ordained by the authority of the same as follows:

SECTION 1. Section 8(a), entitled Computation of Sewer Rentals or Charges, the fourth paragraph shall be amended to read as follows:

(a) Metered Services...

In either of the foregoing cases, such sewer rentals or charges shall be computed in accordance with the following metered rate schedules; subject, however, to the minimum sewer rentals or charges provided in this Ordinance:

Metered Rate Schedule

| <u>Water Consumption</u> | <u>Monthly Sewer Rates</u> |
|--|-----------------------------|
| Gallons as charged- Schuylkill Haven Borough Residents | ✓ \$6.6542/1,000 gallons |
| Gallons as charged- Schuylkill Haven Borough Large Commercial & Industrial Users (water consumption in excess of 250,000 gal./mo.) | \$5.9404/1,000 gallons |
| Gallons as charged- North Manheim Sewer Authority | \$6.6542/1,000 gallons |

The above shown Sewer Rate shall become effective commencing January 1, 2005.

PART I: SCHEDULE OF RATES AND CHARGES

Section A - Rates for Service: Phase I

(I)

Residential (Metered Rate):

Customer Charge

Eagle Village (Quarterly)

\$56.83 / 3 = \$18.94 monthly

Eagle Village - Office (Quarterly)

\$56.83

The Glen at Tamiment (Quarterly)

\$56.83

Eagle Point (Quarterly)

\$56.83

Consumption Charge

All Consumption

\$10.62 per thousand gallons

Availability Charge for Unoccupied Lots \$20.66 per quarter

Commercial (Metered Rate):

Customer Charge (Monthly)

\$126.30

Consumption Charge

\$10.62 per thousand gallons

Schedule of Rates

Application:

This schedule applies to all service throughout the entire territory served.

Rates For Sewerage Service:

Sewerage service rate is a flat rate per service for both residential and commercial customers.

Commercial customers in service territory are multi-unit residential buildings.

The rate is \$35.65 per month billed monthly.

Issued: April 22, 1993

Effective: April 23, 1993

EXHIBIT NO. 7-R-2 (Coatesville)

H2O PA PROGRAM
WATER SUPPLY, SANITARY SEWER AND STORM WATER
PROJECTS
GRANT APPLICATION
FOR

CSC

FEB 12 2009

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

CUSTOMER SERVICE CENTER

J. Collier
3:20 pm

FOR THE TOWNSHIPS
OF
WEST BRANDYWINE TOWNSHIP, CALN TOWNSHIP,
VALLEY TOWNSHIP AND SADBURY TOWNSHIP

SUBMITTED TO
COMMONWEALTH FINANCING AUTHORITY
STEVEN KAPLAN, CHAIRMAN
PA DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT
CENTER FOR BUSINESS FINANCING
SITE DEVELOPMENT DIVISION
H2O PA PROGRAM
COMMONWEALTH KEYSTONE BUILDING
400 NORTH STREET, 4TH FLOOR
HARRISBURG, PA 17120-0225

PREPARED FOR
WEST BRANDYWINE TOWNSHIP MUNICIPAL AUTHORITY
CARL S. LINDBORG, CHAIRMAN
198 LAFAYETTE ROAD
COATESVILLE, PA 19320

FEBRUARY 12, 2009

Date Received: 02/12/09
BOS _____ MGR/SEC/TREAS _____
FADMIN _____ SEC/REC _____ ADAS _____
BI/CO _____ TWPENG / PCH _____
SOL _____ TC _____ MA / WBPA _____
PWD _____ HC _____ PCS _____ PC _____
PRB _____ PRC _____ ZHB _____ FM _____
OTHER _____

EXHIBIT 2
STATEMENT OF ESTIMATED COST

ACQUISITION OF SEWAGE PLANT CAPACITY
AT THE
PENNSYLVANIA AMERICAN WATER COMPANY
COATESVILLE TREATMENT PLANT

BOROUGH OF SOUTH COATESVILLE, CHESTER COUNTY, PA

THE BASIS FOR THIS ESTIMATE OF PROBABLE COST HAS BEEN BASED UPON THE COST ASSOCIATED WITH THE RECENT PROJECT TO EXPAND THE EXISTING PLANT CAPACITY FROM 3.5 MILLION GALLONS PER DAY TO 7 MILLION GALLONS PER DAY. IT ASSUMES THE PARTICIPATING MUNICIPALITIES WILL CONTRIBUTE 52% OF THE PLANTS CAPACITY BASED UPON SEWAGE FACILITY PLANNING.

The Cost to purchase 52% of the Coatesville Treatment plant including Land, Buildings, equipment, sewer and water facilities and other appurtenances

\$52,000,000.00

Other Associated Costs

| | | |
|---------------------------|-------|------------------------|
| Professional Services | 0.50% | \$ 260,000.00 |
| Engineering Services | 0.25% | \$ 130,000.00 |
| Closing Cost | 2.00% | \$ 1,040,000.00 |
| Legal Fees | 0.25% | \$ 130,000.00 |
| Insurance (Bond) | | \$ 250,000.00 |
| Environmental Assessments | | \$ 25,000.00 |
| Contingencies | 2.5% | \$ <u>1,300,000.00</u> |

TOTAL ESTIMATED COST

\$55,135,000.00

TOTAL GRANT REQUEST

\$20,000,000.00

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

REBUTTAL TESTIMONY OF
JOHN J. SPANOS

ON BEHALF OF
PENNSYLVANIA-AMERICAN WATER COMPANY

DOCKET NO. R-2010-2166212
COATESVILLE WASTEWATER OPERATIONS

CONCERNING
DEPRECIATION

August 26, 2010

RECEIVED

AUG 26 2010

PA PUBLIC UTILITY
SECRETARY'S BUREAU

PENNSYLVANIA-AMERICAN WATER COMPANY (PAWC)

REBUTTAL TESTIMONY OF JOHN J. SPANOS

I. INTRODUCTION

1 **Q. Please state your name and business address.**

2 A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp
3 Hill, Pennsylvania.

4 **Q. Have you previously submitted testimony in this proceeding?**

5 A. Yes. My pre-filed testimony was submitted in April 2010 and marked PAWC
6 Statement No. 8. My qualifications are set forth in that statement.

7 **Q. What is the purpose of your rebuttal testimony?**

8 A. The purpose of this testimony is to respond to the pre-filed direct testimony of the
9 Office of Consumer Advocate's (OCA) witness, Ralph C. Smith, and the Office of
10 Trial Staff's Witness, Joseph Kubas.

11 **Q. What is the subject of your rebuttal testimony?**

12 A. The subject of my rebuttal testimony is depreciation expense and accumulated
13 depreciation and, specifically, the changes to the Company's depreciation claims
14 that witnesses for the OCA and OTS have proposed.

15

16 **II. THE OTS WITNESS' PROPOSAL**

17 **Q. Does Mr. Kubas disagree with your methods and procedures?**

18 A. No, he does not.

- 1 **Q. Does Mr. Kubas contend that you have prepared a study inconsistent with**
2 **Pennsylvania regulations for depreciation?**
- 3 A. No, he does not.
- 4 **Q. Please explain Mr. Kubas' recommendation.**
- 5 A. Mr. Kubas recommends departing from standard Pennsylvania practice for
6 depreciation with respect to the net salvage amortization period in this case.
7 Specifically, Mr. Kubas proposes that net salvage (positive salvage less cost of
8 removal) associated with the retirement and removal of the old Coatesville
9 wastewater treatment plant should be amortized over 10 years in lieu of the five-
10 year amortization employed under applicable Commission policy and practice.
11 His proposal is based on the facts and circumstances presented in this case,
12 where a large amount of removal cost has been incurred because of the
13 retirement of significant portions of the old treatment plant.
- 14 **Q. What is the Company's response to Mr. Kubas' recommendation?**
- 15 A. As I previously indicated, Mr. Kubas' recommendation is a departure from
16 standard Pennsylvania practice for net salvage amortization. However, the
17 Company would be willing to accept Mr. Kubas' recommendation based solely on
18 the facts and circumstances presented here. Given the size and the nature of
19 the asset that was retired and the cost to remove the large concrete structures
20 and other large components of the old plant, the Company believes that an
21 exception to the Commission's standard procedure may be justified in this case.

1 **III. The OCA Witness' Proposal**

2 **Q. Please summarize OCA Witness Smith's depreciation proposal?**

3 A. First, Mr. Smith proposes using the Average Service Life (ASL) procedure
4 instead of the Equal Life Group (ELG) procedure to calculate annual
5 depreciation. Second, Mr. Smith proposes to use the remaining life accrual
6 method for the net salvage component instead of adhering to standard
7 Pennsylvania practice of amortizing net salvage.

8 **Q. Has Mr. Smith offered any support for deviating from standard depreciation
9 procedures employed in Pennsylvania?**

10 A. No, he has not. It appears that his recommendations have been made as a
11 means of reducing depreciation expense and, therefore, revenue requirement by
12 shifting a larger portion of cost recovery to later in the lives of existing assets.

13 **Q. Is the ELG procedure consistently used for utility companies in
14 Pennsylvania?**

15 A. Yes, it is. *Pennsylvania-American Water Company* has utilized the ELG
16 procedure for depreciation for many years for its water assets. The current rates
17 for the Coatesville wastewater assets are also based on the use of the ELG
18 procedure. Additionally, almost all water, gas, and electric utilities in
19 Pennsylvania employ depreciation rates determined on the basis of the ELG
20 procedure.

1 **Q. Will the conversion from the currently used ELG depreciation rates to ASL**
2 **depreciation rates cause a material change in proposed rates?**

3 A. Yes. Moreover, this change is inappropriate because, in addition to departing
4 from standard Pennsylvania practice, it will unnecessarily push cost recovery
5 further into the future.

6 **Q. Please discuss Mr. Smith's proposal to employ the remaining life method to**
7 **recover net salvage?**

8 A. At the outset, it should be emphasized that in virtually all jurisdictions other than
9 Pennsylvania, net salvage is recovered prospectively.¹ This means that in other
10 jurisdictions, there is an element of the annual accrual for depreciation that
11 recovers the estimated cost to dismantle and remove plant over the period that
12 such plant is actually in service. That element of the annual accrual is booked to,
13 and increases, accrued depreciation. Thus, by the time the plant is retired, the
14 cost of removal (except for any variation between estimated and actual costs) will
15 have been recovered and appropriately recorded in accrued depreciation. In
16 contrast to procedures employed elsewhere, the Superior Court of Pennsylvania
17 in Penn Sheraton Hotel v. Pennsylvania Public Utility Commission, 198 Pa.
18 Super. 618, 184 A.2d 324 (1962) has held that prospective recovery of net
19 salvage is not permitted under Pennsylvania law and, instead, such costs, when
20 they have actually been incurred at the end of the service life of a property, must
21 be "capitalized and amortized":

¹ Net salvage is the sum of positive salvage and cost of removal. Given the nature of utility property, net salvage for utilities is generally negative. In other words, cost of removal exceeds positive salvage. For that reason, I focus on the recovery of net negative salvage even though it may be possible that net salvage could be positive, in which case the amortization would flow positive salvage back to customers over the amortization period.

1 If the utility retires and removes a property without replacing it or
2 replaces it after removal and incurs actual negative salvage in
3 doing so, the expenditure should be capitalized and amortized by
4 some reasonable method and for and over a reasonable length of
5 time.
6

7 The Commission has implemented the Superior Court's directive by having
8 utilities (1) deduct the amount of actual net salvage from accrued depreciation
9 when such net salvage is first incurred; (2) amortizing actual net salvage over
10 five years; and (3) each year, adding to accrued depreciation the annual amount
11 of the amortization. This procedure was explained in a 2004 decision for the
12 Company, where the Commission once again affirmed this procedure.
13 Pennsylvania Public Utility Commission v. Pennsylvania-American Water
14 Company, 231 P.U.R.4th 277 (2004):

15 Additionally, the ALJ averred that PAWC's capitalizing net salvage
16 is directed by the most recent Uniform System of Accounts for
17 Class A Water Utilities prescribed by the National Association of
18 Regulatory Utility Commissioners (NARUC). The ALJ also noted
19 that PAWC is required, by Commission regulation, to keep its
20 accounts in conformity with this NARUC prescript. 52 Pa. Code §
21 65.16(a). The ALJ concluded that a Pennsylvania appellate court
22 and the Commission itself, repeatedly, have determined that
23 PAWC's treatment of net negative salvage is proper. Consequently,
24 the ALJ recommended that the OTS' proposed adjustment should
25 be rejected. (R.D. at 16). . . .
26

27 No Party excepts to the ALJ's recommendation on this issue.
28 Finding the ALJ's recommendation to be reasonable, appropriate
29 and otherwise in accord with the record evidence, it is adopted.
30

31 Mr. Smith proposed employing the remaining life concept to recover the removal
32 costs of the old treatment plant over the (prospective) life of the new treatment
33 plant. This recovery method is a marked departure from Commission-approved
34 practice and raises a material issue of intergenerational equity as between
35 today's and future customers because, under Mr. Smith's proposal, a significant

1 portion for the cost of removal would not be recovered until even further in the
2 future than under current Commission practice.

3 **Q. Please address Mr. Smith's contention that your study produces "double**
4 **recovery" of net salvage?**

5 A. This claim is inaccurate and is based on Mr. Smith's misunderstanding of how
6 depreciation rates are developed in a future test year calculation. As shown on
7 Tables 1 and 2 of Exhibit 8-B, the future test year "bring-forward" of the book
8 reserve is calculated based on procedures consistently approved by this
9 Commission, which is clear from Pennsylvania Public Utility Commission v.
10 Pennsylvania-American Water Company, 231 P.U.R.4th 277 (2004). I used the
11 same procedure here. Mr. Smith's concern arises from the large cost of removal
12 incurred for the removal of the old treatment plant. However, the offset of this
13 amount that occurs from amortizing the cost of removal (in the manner I
14 explained previously) does not begin until 2011. Thus, the combination of the
15 remaining life method, to recover the original cost of utility plant, and the
16 amortization of net salvage, to recover net salvage, that I have proposed will
17 recover the service value of the Company's property, neither more nor less.

18 Additionally, although the two components of cost recovery, capital
19 investment and net salvage, are set forth in one book reserve amount for each
20 account, the recoveries are booked individually.

21 22 **IV. CONCLUSION**

23 **Q. Does this conclude your rebuttal testimony?**

24 A. Yes, it does.

PENNSYLVANIA-AMERICAN WATER COMPANY
COATESVILLE WASTEWATER DIVISION

DOCKET NO. R-2010-2166212

REBUTTAL TESTIMONY

OF

PAUL R. MOUL, MANAGING CONSULTANT
P. MOUL & ASSOCIATES

CONCERNING

CAPITAL STRUCTURE RATIOS AND THE
COST OF EQUITY

DATE: AUGUST 26, 2010

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PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

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**REBUTTAL TESTIMONY
OF
PAUL R. MOUL**

6 **Q. Please state your name, occupation and business address.**

7 A. My name is Paul R. Moul and I am Managing Consultant at the firm P. Moul &
8 Associates. My business address is 251 Hopkins Road, Haddonfield, NJ 08033-3062.

9 **Q. Mr. Moul, have you previously submitted direct testimony in this proceeding?**

10 A. Yes. My direct testimony, pre-marked as PAWC Statement No. 9, was submitted on
11 April 30, 2010.

12 **SCOPE OF TESTIMONY AND SUMMARY**

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

14 A. Pennsylvania-American Water Company ("PAWC" or the "Company") has requested
15 that I respond to the testimony presented by Dr. J. Randall Woolridge, a witness
16 appearing on behalf of the Office of Consumer Advocate ("OCA"), and Mr. Andrew R.
17 O'Donnell, a witness appearing on behalf of the Office Trial Staff ("OTS"). My silence
18 on any particular matter discussed by Dr. Woolridge or Mr. O'Donnell regarding my
19 direct testimony should not be interpreted as my agreement with any of their
20 assertions.

21 **Q. Please identify the principal areas of controversy concerning the rate of return
22 issue in this proceeding.**

23 A. Although I disagree with Dr. Woolridge and Mr. O'Donnell on many points, my rebuttal
24 testimony will focus on the inadequate rate of return on the Company's common equity,
25 which does not come close to the level of return that investors expect.

COST OF EQUITY

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Q. What are the principal deficiencies in the cost of equity analyses presented by Dr. Woolridge and Mr. O'Donnell?

A. Dr. Woolridge and Mr. O'Donnell have proposed considerably lower rates of return on common equity than my analysis has indicated is necessary. The major differences between our cost of equity findings involve: (i) the return level that will be acceptable to the financial community, (ii) the selection of proxy group companies to measure the cost of equity, (iii) the determination of a reasonable Discounted Cash Flow (DCF) growth rate, (iv) whether a leverage adjustment to the DCF is necessary, (v) the extent to which other methods of determining the cost of equity provide a reasonable measure of the appropriate cost of common equity, and (vi) whether adjustments are necessary to the Company's cost of equity due to its rate design proposal.

Q. How would the financial community react if the Commission were to accept either Dr. Woolridge's or Mr. O'Donnell's equity cost rate proposals?

A. The financial community would be extremely concerned, if not shocked, if the Commission set the Company's cost of equity at either 9% (Dr. Woolridge), or 9.5% (Mr. O'Donnell). Either level of return is not sufficient to sustain utility operations or to attract capital at a reasonable cost. In its July 31, 2008 Order at Docket No. R-00072711, the Commission provided Aqua Pennsylvania, Inc. with an 11.00% return on equity. Since then, and as described in my direct testimony, the financial markets have experienced the worst financial crisis since the Great Depression. While capital markets have stabilized, the volatility of the stock market continues to exceed that which existed prior to the crisis, thereby indicating that the return for the Company should not be lower.

1 **Q. Are the 9% equity return proposed by Dr. Woolridge and the 9.5% figure**
2 **recommend by Mr. O'Donnell compatible with the current risk of common**
3 **stocks?**

4 A. No. They are much too low. This is particularly true today given the wide swings in
5 share values and the overall financial market uncertainty that currently exists. The
6 behavior of the Chicago Board Options Exchange ("CBOE") Volatility Index (i.e., "VIX")
7 indicates that the risk of common stocks is relatively high at this time. The VIX is
8 based on real-time prices of options on the S&P 500 Index, and is designed to reflect
9 investors' consensus view of future (30-day) expected stock market volatility.

10 **Q. What has been the recent performance of the VIX?**

11 A. It is well-established that greater volatility indicates higher risk, which, all else being
12 equal, translates into a higher cost of equity. As shown in the following table, the VIX
13 for the first half of 2010 has averaged 23.23, while the average VIX prior to the
14 financial crisis was less than 13.00.

| <u>Year</u> | <u>VIX</u> | <u>Month</u> | <u>VIX</u> |
|-------------|------------|--------------|------------|
| 2005 | 12.81 | January-10 | 20.77 |
| 2006 | 12.81 | February-10 | 22.54 |
| 2007 | 17.54 | March-10 | 17.77 |
| 2008 | 32.69 | April-10 | 17.42 |
| 2009 | 31.48 | May-10 | 31.93 |
| | | June-10 | 29.92 |

15 **Q. Are there other objective indications of the level of returns expected by investors**
16 **which show that the opposing parties' proposed cost of equity is much too low?**

17 A. Yes. According to the data provided by Dr. Woolridge, water utilities are forecast to
18 earn 11.8% as the average and 11.0% as the median (see page 5 of Exhibit JRW-10).

COMPARABLE COMPANIES

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Q. Have proxy groups of companies been employed in this case to determine the Company's cost of equity?

A. Yes. Mr. O'Donnell and I have used exactly the same companies in our respective proxy groups. Dr. Woolridge also uses my barometer group companies but has erroneously added Artesian Resources to his proxy group. Artesian Resources is not in the Value Line publication. Also, Artesian Resources is the only company considered by Dr. Woolridge that has two classes of common stock, one of which does not have voting rights. This is a highly unusual situation for a water company.

Q. Dr. Woolridge also considers data for a group of natural gas distribution utilities in his cost of equity analysis. Please comment.

A. The Commission disfavors the use of natural gas distribution company data as a basis to determine the cost of equity for water utilities. Indeed, such a proposal was specifically rejected in a rate proceeding involving Pennsylvania-American Water Company (see Recommended Decision of Administrative Law Judge Wayne L. Weismandel dated November 26, 2003 at Docket No. R-00038304). Moreover, Dr. Woolridge has not compared the business risk characteristics of his natural gas group companies to PAWC's wastewater operations. Notably in this regard, most of the natural gas distribution companies considered by Dr. Woolridge have some form of Revenue Decoupling Mechanism ("RDM"), which makes their recovery of fixed costs very different than PAWC.

1 DCF DIVIDEND YIELD

2 **Q. Do you have any comments regarding Dr. Woolridge's criticism of your dividend**
3 **yield calculation?**

4 A. Yes. Dr. Woolridge complains that my dividend yield is overstated due to some
5 unexplained failure to properly annualize the quarterly dividend amount and the
6 *compounding associated with the quarterly payment of dividends. But here, Dr.*
7 *Woolridge has created a straw-man. As shown on pages E-4, E-5, and E-6 of*
8 *Appendix E of Statement No. 9, my proposed 3.67% dividend yield derived from the*
9 *formula $D_0/P_0 (1 +.5g)$, which is embraced by Dr. Woolridge (see page 29 of Dr.*
10 *Woolridge's direct testimony), produces virtually the same dividend yield (i.e., 3.68%)*
11 *that I derived using the other methods. As such, Dr. Woolridge's criticism is a "tempest*
12 *in a teapot" and should be ignored.*

13 DCF GROWTH RATE

14 **Q. As to the DCF growth component, what financial variables should be given**
15 **greatest weight when assessing investor expectations?**

16 A. The theory of the DCF holds that (1) the value of a firm's equity (i.e., share price) will
17 grow at the same rate as earnings per share and (2) dividend growth will equal
18 earnings growth with a constant payout ratio. Therefore, to properly reflect investor
19 expectations within the limitations of the DCF model, earnings per share growth, which
20 is the basis for the capital gains yield and the source of dividend payments, must be
21 emphasized. The reason that earnings per share growth is the primary determinant of
22 investor expectations rests with the fact that the capital gains yield (i.e., price
23 appreciation) will track earnings growth with a constant price earnings multiple (another
24 key assumption of the DCF model). It is also important to recognize that analysts'
25 forecasts significantly influence investor growth expectations (see pages E-6 through

1 E-10 of Appendix E that accompanies my direct testimony). Lastly, it is instructive to
2 note that Professor Myron Gordon, the foremost proponent of the DCF model in public
3 utility rate cases, has established that the best measure of growth for use in the DCF
4 model is forecasts of earnings per share growth. For these reasons, earnings per
5 share forecasts must be given primary weight.

6 **Q. Dr. Woolridge has questioned the reliability of analysts' forecasts of earnings**
7 **per share growth used in the DCF model. Do you agree?**

8 A. No, I do not. Indeed, Dr. Woolridge uses analysts' forecasts extensively in his own
9 DCF analysis. Moreover, Dr. Woolridge says that it is necessary to adjust downward
10 the growth rate for his perceived bias in analysts' forecasts, but he makes no mention
11 of any upward adjustment to the dividend yield. If investors are placing reliance on an
12 analysts' forecast of growth, the prices of stocks will be overstated according to Dr.
13 Woolridge's reasoning. So if Dr. Woolridge is correct in his assessment that analysts'
14 growth forecasts are overstated, stock prices would have to be adjusted downward and
15 thus dividend yields adjusted upwards to accompany the downward adjustment that he
16 proposes for the growth rate. Failure to make both adjustments would result in a mis-
17 specified cost of equity.

18 **Q. Do you agree with Dr. Woolridge's view that analysts' forecasts of earnings per**
19 **share contain some form of bias?**

20 A. I find inadequate support for this assertion. With entry of the final judgment in the
21 Global Research Analyst Settlement ("GRAS"), which resolved the equity research
22 analysts practices at major investment banks that had been accused of conflicts of
23 interest, Wall Street firms have separated their research and investment banking
24 services. However, thirteen (13) of the studies that Dr. Woolridge lists under the
25 category "Ex Ante Model (Puzzle Research)" on page 5 of Exhibit JRW-11 pre-date

1 2003. Hence, the criticisms offered by Dr. Woolridge are out-of-date. I also find Dr.
2 Woolridge's criticism of analysts' forecasts somewhat perplexing because he provides
3 extensive evidence of analysts' forecasts (see pages 5 and 6 of Exhibit JRW-10) in his
4 DCF analysis. More importantly, it matters not what Dr. Woolridge may think about the
5 analysts' forecasts. Rather, what is important is what investors actually use in their
6 decisions regarding the purchase, sale or holding of stocks. The bottom line is that the
7 growth rate must be synchronized with the price that investors establish when valuing a
8 stock.

9 **Q. Is there any reason to believe that analysts' forecasts may understate actual**
10 **earnings growth?**

11 A. Yes. In an article entitled "Wall Street's Missed Expectations," dated April 26, 2010,
12 The Wall Street Journal reported that 64% of companies have beaten the analysts'
13 forecasts since the start of 1999. This means that over the past decade analysts were
14 actually too conservative in their forecasts.

15 **Q. Dr. Woolridge also appears to have considered, and perhaps to have given some**
16 **weight to, historical growth rates in earnings, dividends, and book value. Please**
17 **comment.**

18 A. History cannot be ignored. However, in developing a forecast of future earnings
19 growth, an analyst would first apprise himself/herself of the historical performance of a
20 company. Hence, there is no need to count historical growth rates a second time,
21 because historical performance is already reflected in analysts' forecasts which reflect
22 *an assessment of how the future will diverge from the past.*

23 **Q. Did Dr. Woolridge also consider retention growth?**

24 A. Yes. However, the retention growth formula was misapplied on page 5 of his Exhibit
25 JRW-10. In particular, Dr. Woolridge relied upon the Value Line forecasts of year-end,

1 rather than annual average, book values to calculate his return on book value. This
2 creates a downward bias in the results because, assuming some retention growth, the
3 average book value for the year will be less than the year-end book value. In fact,
4 when the FERC employs these data, it adjusts the year-end returns to derive the
5 average yearly return. Generally speaking, this adjustment would increase the
6 retention growth rate.

7 **Q. Has Dr. Woolridge included external financing growth in his growth rate**
8 **analyses?**

9 A. No. This omission results in a further downward bias. Forecasts by Value Line
10 indicate that future growth from external stock financing will add to the growth in equity,
11 which, if recognized, would result in a higher internal/external growth rate.

12 **Q. As part of his DCF analysis, Dr. Woolridge used dividends per share growth**
13 **rates published by Value Line. Are these growth rates useful in the DCF?**

14 A. No. The Value Line forecast growth rates in dividends per share shown on page 5 of
15 Exhibit JRW-10 are the lowest of all growth rate indicators (earnings per share, book
16 value per share, and earnings retention from Value Line, Yahoo First Call, Zacks, and
17 Reuters -- when corrected for negative growth rates). As I explain in my direct
18 testimony, under the constant growth assumption of the DCF model, dividends per
19 share are presumed to grow in the long-run at the same rate as earnings per share
20 with a constant dividend payout ratio, and stock price is presumed to grow in the long-
21 run at the same rate as earnings per share with a constant price-earnings multiple.
22 Hence, earnings per share growth is the correct growth rate to be used in the DCF
23 model.

1 **Q. Dr. Woolridge also provides forecasts of book value per share growth. Please**
2 **comment.**

3 A. Book value per share growth, as shown on pages 4 and 5 of Exhibit JRW-10, should
4 not be used in DCF analyses because stocks do not trade at constant market-to-book
5 ratios.

6 **Q. Do you believe that the growth rates in dividends per share and book value per**
7 **share, as reported by Dr. Woolridge, are reasonable for DCF purposes?**

8 A. No. The average analyst's forecast of earnings growth for Dr. Woolridge's water proxy
9 group is 5.58%, while the average of the dividend and book value growth rates is just
10 3.45% (3.2% + 3.7% = 6.9% ÷ 2). For his gas group, the forecasted earnings growth
11 of 4.6% exceeds the 3.50% (4.0% + 3.0% = 7.0% ÷ 2) average of the dividends and
12 book value growth. This clearly shows that the dividends and book values play no
13 useful role in the DCF analysis.

14 **Q. Should the forecast negative growth rates for Middlesex Water and SJW**
15 **Corporation, as reported by Dr. Woolridge using the Reuters source, be**
16 **considered?**

17 A. No. Negative growth rates provide no reliable guide to gauge investor expected growth
18 for the future. Investor expectations encompass long-term positive growth rates and,
19 as such, could not be represented by sustainable negative rates of change. Therefore,
20 statistics that include negative growth rates should not be given any weight when
21 formulating a composite growth rate expectation. Although investors have knowledge
22 that negative growth and losses can occur, their expectations are for positive growth --
23 otherwise they would hold cash rather than invest with the expectation of a loss. After
24 removing the negative growth rates, the Reuters average growth rate forecast is 6.4%,
25 which provides an overall group average growth rate of 6.4% (7.8% + 5.1% + 6.4% =

1 19.3% ÷ 3). I should note that there is also a conflict in the Zacks growth rate reported
2 by Dr. Woolridge. On page 6 of Exhibit JRW-10, Dr. Woolridge reports a 4% Zacks
3 growth rate for California Water Service Group; Mr. O'Donnell, on the other hand,
4 shows a higher 6% growth rate for California Water Service Group.

5 **Q. How would the use of these data impact the DCF employed by Dr. Woolridge?**

6 A. The DCF result using the six-month average dividend yield, the 6.4% growth rate
7 developed above, and the leverage adjustment associated with using the book value
8 capitalization, is as follows:

$$\begin{array}{l} \text{Discounted Cash Flow (DCF)} \quad D_0/P_0 \times (1+0.5g) + g + lev. = k \\ \text{Woolridge Water Group} \quad 3.5\% \times 1.03200 + 6.40\% + 1.03\% = 11.04\% \end{array}$$

9 **Q. Please comment on Mr. O'Donnell's growth rate proposal.**

10 A. The growth rate proposed by Mr. O'Donnell is 6.00%. Unfortunately, this growth rate
11 contains a downward bias because he erroneously factored historical growth rates into
12 his analysis. His approach is incorrect for the reasons previously given, namely (i)
13 historical performance is already considered by analysts when making their forecasts
14 and (ii) the negative historical growth rates should not be given weight. If the negative
15 historical growth rates from Yahoo Finance are removed from Mr. O'Donnell's analysis,
16 the average analysts' growth rate is 7.08%. Hence, his growth rate must be increased
17 from 6% to 7% to reasonably represent investors' expectations for the water
18 companies.

19 **Q. What would be the DCF result using the forecasts of earnings per share growth?**

20 A. As shown on page 1 of Schedule 2 of OTS Exhibit No. 1, that result would be:

$$\begin{array}{l} D/P + g + lev. = k \\ \text{Water Group} \quad 3.57\% + 7.00\% + 1.03\% = 11.60\% \end{array}$$

1 **Q. Mr. O'Donnell asserts that your DCF growth rate is overstated. Please respond.**

2 A. As shown by the data presented on Schedule 5 of OTS Exhibit No. 1, the average of
3 growth rate indicators, excluding dividend per share and book value per share values,
4 is 7.42% (8.19% + 6.18% + 8.92% + 7.83% + 6.00% = 37.12% ÷ 5), which amply
5 supports the 7% growth rate that I used in my testimony.

6 **Leverage Adjustment**

7 **Q. Please respond to the Dr. Woolridge's criticism of your leverage adjustment.**

8 A. As in many (but not all) prior cases, I have proposed an adjustment to reflect the
9 difference in risk attributed to changes in leverage that occur when the book value
10 capital structure, rather than the market value capital structure, is used to compute the
11 weighted average cost of capital. This modification to the DCF model must be
12 recognized in order to make the DCF results relevant to the book value capital
13 structure.

14 **Q. Is Dr. Woolridge's challenge to your leverage adjustment well founded?**

15 A. No. I am somewhat surprised by Dr. Woolridge's challenge to my leverage adjustment.
16 In a book that he co-authored, Dr. Woolridge noted:

17 Market professionals always use the market value
18 of common stock when they examine the
19 capitalization of the corporation. As we will see in
20 valuation examples, the market value of common
21 stock sometimes bears little relationship to its book
22 value. *Stock prices are readily available.*¹
23

24 **Q. Dr. Woolridge contends that in a recent Aqua Pennsylvania rate case the
25 Commission denied the leverage adjustment. Please respond.**

26 A. The fact that the PPUC declined to make a leverage adjustment in the Aqua

¹ Gray, Gary, Cusatis, Patrick J., Woolridge, Randall J. Streetsmart Guide to Valuing a Stock: The Savvy Investor's Key to Beating the Market, Second Edition. New York: McGraw-Hill Companies (2004)

1 Pennsylvania case does not invalidate its use. Rather, the PPUC merely indicated that
2 the adjustment was optional. The PPUC did not repudiate the leverage adjustment,
3 but instead arrived at an 11.00% return on equity for Aqua Pennsylvania by providing a
4 separate return increment for management performance. Just like an increment for
5 management performance is not adopted in all rate case decisions, the PPUC seems
6 to be taking a similar approach to the leverage adjustment.

7 **Q. Do you have any additional comments regarding Dr. Woolridge's comments on**
8 **the leverage adjustment?**

9 A. Yes. Dr. Woolridge has not disputed the fact that there is less financial risk associated
10 with a 64.91% (market price-based) equity ratio than there is with a 50.98% (book
11 value-based) equity ratio for my Water Group (see page E-11 of Appendix E that
12 accompanies my direct testimony). Moreover, and as noted previously, Dr. Woolridge
13 has acknowledged in his book that the market value of common equity is the most
14 relevant item for professional investors. Because financial risk increases when the
15 common equity ratio is lower, the cost of equity must likewise increase when used in
16 the ratesetting process.

17 **Q. Dr. Woolridge also claims that the leverage adjustment will serve to increase the**
18 **return for companies with high market-to-book ratios and decrease the returns**
19 **for companies with low market-to-book ratios. Please respond.**

20 A. In making this assertion, Dr. Woolridge neglects to mention that, all else being equal, a
21 company with a higher market-to-book ratio will have a lower dividend yield. The
22 reverse is also true, i.e., lower market-to-book ratios, serve to increase the DCF return.
23 Essentially, the leverage adjustment adds stability since it provides an offset to the
24 relative level of DCF returns.

1 Further, there are many factors that impact the leverage adjustment, including
2 changes in the market capitalization and book capitalization, the components of the
3 yield and growth (noted above), and the overall level of capital costs as revealed by the
4 marginal cost of debt and preferred stock. Although rare, the formulas that I use to
5 compute the leverage adjustment could actually produce a lower adjustment with a
6 higher differential between the market capitalization and book capitalization.

7 **Q. Mr. O'Donnell also questions your leverage adjustment by reference to an old**
8 **Blue Mountain case in which you testified. Please comment.**

9 A. The Commission has consistently recognized that the Blue Mountain decision, which is
10 now 30 years old, and the environment in which it was issued, are distinguishable in a
11 number of important respects.

12 First, that case was not decided using the DCF method. Rather, the
13 Commission relied heavily on earnings/prices ratios to set the return on equity in the
14 context of a fair value rate base. Second, in its decision on remand, the Commission
15 noted that over a period of years it was relatively easy to discern the trends in market-
16 to-book ratios which, when compared to performance as measured by other financial
17 ratios, can indicate the return levels the Commission must award to assure reasonable
18 access by public utilities to the capital markets. Notably, the trends in market-to-book
19 ratios during that period were substantially different from today. At the time that case
20 was litigated, market-to-book ratios for the broader market generally approximated 1:1.
21 That is to say, market prices in the late 1970s were about equal to book value.

22 Since that time, share prices have moved much higher vis-à-vis their underlying
23 book values. So, while the market-to-book ratio of the DJI approximated 1:1 in the late
24 1970s, today the DJI trades at 4.52:1 of book value. In short, the capital markets today
25 are markedly different than those that existed at the time of the Blue Mountain case. I

1 should also note that, since that time, the Commission has adopted my leverage
2 adjustment to the DCF model on numerous occasions.

3 **CAPITAL ASSET PRICING MODEL**

4 **Q. Do you have concerns regarding the application of the CAPM by Dr. Woolridge?**

5 A. As a preliminary matter, Dr. Woolridge produced a 7.5% CAPM result for his Water
6 Proxy Group and 7.0% for his Gas Proxy Group. These results are not credible. This
7 is especially true in the circumstance where the average yield on A-rated public utility
8 bonds was 5.71% for the six-months through June, 2010. The opportunity cost of
9 equity must be higher than the cost of debt by a meaningful margin, which is not the
10 case with Dr. Woolridge's CAPM. Dr. Woolridge's CAPM analysis understates the cost
11 of equity for a number of reasons: (i) his use of a wholly unrealistic market premium, (ii)
12 his failure to use leveraged adjusted betas, and (iii) his failure to make a size
13 adjustment.

14 **Q. What is your primary objection to the CAPM as applied by Dr. Woolridge?**

15 A. It appears to me that Dr. Woolridge has substantially misstated the total return for the
16 market as a whole from which he calculates his market premium (i.e., $R_m - R_f$). The
17 market returns he uses, such as 7.05% (see page 7 of Exhibit JRW-11), cannot
18 possibly be correct. What Dr. Woolridge appears to show on his bar graph on page 7
19 of Exhibit JRW-11 is that the S&P 500 has a DCF return that is comprised of a 1.9%
20 dividend yield and 5.15% (2.5% + 2.65%) growth rate.

21 **Q. Is the 7.05% total market return developed by Dr. Woolridge reasonable?**

22 A. No. Any forecast market return below 12% is unreasonable at this time. Current
23 market evidence produces total market returns of:

| <u>Value Line</u> | <u>Dividend Yield</u> | <u>Appreciation Potential</u> | <u>Total Return</u> |
|---------------------|-----------------------|-------------------------------|---------------------|
| As of June 25, 2010 | 2.0% + | 13.34% ⁽²⁾ | = 15.34% |

DCF Result for the S&P 500 Composite

| | | | | | | | |
|-------|---|--------|---|---|--------|---|--------|
| D/P | (| 1+5g |) | + | g | = | k |
| 2.12% | (| 1.0501 |) | + | 10.02% | = | 12.25% |

| | | | | | |
|--------|--------------|-----|----------------|---|---------|
| where: | Price (P) | at | 30-Jun-2010 | = | 1030.71 |
| | Dividend (D) | for | 1st Qtr. '10 | = | 5.46 |
| | Dividend (D) | | annualized | = | 21.84 |
| | Growth (g) | | First Call EpS | = | 10.02% |

- 1 The average of the market returns is 13.80% (15.34% + 12.25% = 27.59% ÷ 2). The
2 resulting market premium would be 9.80% using Dr. Woolridge risk-free rate of return
3 of 4.00%, which indicates that his 4.68% market premium is much too low.
- 4 **Q. Are there other reasons to believe that the 7.05% market return determined by**
5 **Dr. Woolridge is unrealistic?**
- 6 A. Yes. A 7.05% overall return for the market as a whole is less than the DCF return that
7 Dr. Woolridge calculates for his purportedly less risky water and gas groups (see page
8 1 of Exhibit JRW-10). It is simply inconceivable that the return on the stock market as
9 a whole is only 7.05% if the return is 9.1% for his Water Proxy Group and 8.9% for his
10 Gas Proxy Group. It is apparent that his total market return is flawed.

²The estimated median appreciation potential is forecast to be 65% for 3 to 5 years hence. The annual capital gains yield at the midpoint of the forecast period is 13.34% (i.e., $1.65^{.25} - 1$).

1 **Q. Dr. Woolridge and Mr. O'Donnell have also criticized your leverage-adjusted**
2 **betas. Please respond.**

3 A. The betas that I have used are calculated strictly from market values, using a firm's
4 stock price as the dependent variable and the market index as the independent
5 variable. There is no reference to book values in the calculation of betas. Yet, as I
6 have previously explained, the regulatory-determined cost of equity must be adjusted
7 for the difference between the risks implicit in the market-based ROE models versus
8 the financial risk associated with book value capital structure used in ratesetting. The
9 Hamada formula that I utilized to adjust the betas is merely an extension of the
10 Modigliani and Miller formula that I used in connection with my DCF calculations. And,
11 of course, Mr. O'Donnell is off the mark by suggesting that Value Line should publish
12 market-to-book adjusted betas. Contrary to Mr. O'Donnell's apparent suggestion,
13 betas only measure systematic risk, not total investment risk. It is for this very reason
14 that the betas should reflect a leverage adjustment as circumstances warrant.

15 **Q. Do you have additional concerns regarding Mr. O'Donnell's application of the**
16 **CAPM?**

17 A. Yes. Mr. O'Donnell has incorrectly used the geometric mean to measure historical
18 returns. The theoretical foundation of the CAPM requires that the arithmetic mean be
19 used because it conforms to the single period specification of the model, provides a
20 representation of all probable outcomes and has a measurable variance. The
21 geometric mean, which Mr. O'Donnell employs, consists merely of a rate of return
22 taken from two data points and cannot provide a reasonable representation of the
23 market risk premium in the context of the CAPM. As stated by Ibbotson:

24 *Arithmetic Versus Geometric Differences*
25 For use as the expected equity risk premium in the CAPM,
26 the arithmetic or simple difference of the arithmetic means
27 of stock market returns and riskless rates is the relevant

1 number. This is because the CAPM is an additive model
2 where the cost of capital is the sum of its parts. Therefore,
3 the CAPM expected equity risk premium must be derived
4 by arithmetic, not geometric, subtraction.
5

6 *Arithmetic Versus Geometric Means*

7 The expected equity risk premium should always be
8 calculated using the arithmetic mean. The arithmetic mean
9 is the rate of return which, when compounded over multiple
10 periods, gives the mean of the probability distribution of
11 ending wealth values....This makes the arithmetic mean
12 return appropriate for computing the cost of capital. The
13 discount rate that equates expected (mean) future values
14 with the present value of an investment is that investment's
15 cost of capital. The logic of using the discount rate as the
16 cost of capital is reinforced by noting that investors will
17 discount their (mean) ending wealth values from an
18 investment back to the present using the arithmetic mean,
19 for the reason given above. They will therefore require
20 such an expected (mean) return prospectively (that is, in
21 the present looking toward the future) in order to commit
22 their capital to the investment. (Stocks, Bonds, Bills and
23 Inflation - 1996 Yearbook, pages 153-154
24

25 **Q. If historical market returns are to be considered, how should the S&P Composite**
26 **Index data be employed?**

27 A. A 9.60% historical market return considered by Mr. O'Donnell using geometric means
28 for the S&P 500 cannot possibly be correct given that the expected returns he
29 measured were 12.92% using Value Line data. The historic return using the correct
30 arithmetic mean is 11.7%, which is more realistic given the forecasts noted above. The
31 resulting market return would be 12.31% ($12.92\% + 11.7\% = 24.62\% \div 2$). With this
32 market return, the market premium is 8.41% ($12.31\% - 3.90\%$) using Mr. O'Donnell's
33 risk-free rate of return.

34 **Q. Dr. Woolridge and Mr. O'Donnell also question the need to further adjust the**
35 **CAPM results for size differences. Please comment.**

36 A. Both Dr. Woolridge and Mr. O'Donnell have relied upon the Wong article to support
37 their positions. But, the Wong article employed data going back into the 1960s.

1 Enormous changes have occurred in the industry since the 1960s that have
2 fundamentally changed the utility business. The Wong article also noted that betas for
3 the non-regulated companies were larger than the betas of the utilities. This, however,
4 is not a revelation, because history shows that utilities generally have lower betas than
5 many other companies. This fact does not invalidate the additional risk associated with
6 small size.

7 The Wong article further concludes that the risk impacts of size cannot be
8 explained in terms of beta. Again, this should not be a surprise. Beta is not the tool
9 that should be employed to make that determination. Indeed, beta is a measure of
10 systematic risk and it does not provide the means to identify the return necessary to
11 compensate for the additional risk of small size. In contrast, the famous Fama/French
12 study (see "The Cross-Section of Expected Stock Returns," The Journal of Finance,
13 June 1992) identified size as a separate factor that helps explain returns. Further, the
14 article by Dr. Thomas Zepp³ presented research on water utilities that supports a small
15 firm effect in the utility industry.

16 **Q. Have you restated Mr. O'Donnell's CAPM?**

17 A. Yes. I have restated his CAPM results as indicated below by correcting his market
18 premium, by reflecting the size adjustment, and by employing the leverage adjusted
19 betas for the Water Group.

$$R_f + \beta (R_m - R_f) + size = K$$
$$\text{Water Group } 3.90\% + 0.93 (8.41\%) + 0.94\% = 12.66\%$$

³ Zepp, Thomas M. (2002) "Utility stocks and the size effect: revisited". Economics and Finance Quarterly, 43, 578-582.

Risk Premium Method

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Q. Do you have any comments concerning Dr. Woolridge's criticism of the risk premium approach?

A. Yes. Concerning his point on pages 73-74 of his direct testimony, Dr. Woolridge seems to imply that use of the base yield in my risk premium analysis that includes A-rated public utility bonds is not correct. He attributes this in part to interest rate risk and default risk that are reflected in the yields on A-rated public utility bonds. These are invalid criticisms because common stock investors are faced with these same risks. Moreover, if the compensation for these risks were removed from the yield on A-rated public utility bonds, then the resulting risk premium would be larger when computed from a smaller base yield.

Dr. Woolridge's other criticisms of the historical relationship between stock and bond returns are invalid because: (1) common stock investors are subject to the risk of changing levels of interest rates since a primary determinant of the cost of equity is the level of interest rates (especially for utility stocks), and (2) the credit risk associated with a company's bonds is also a major concern for common stock investors (e.g., default on a company's bonds would adversely affect the common stockholders).

Q. Please address the alphabetic medley of criticisms listed by Dr. Woolridge on pages 75 to 81 of his direct testimony.

A. Most of these require only a brief response. As to item (A), (biased historical returns) the capital losses concerning historical bond returns were non-existent for long-term government bonds (used by Dr. Woolridge as a proxy for bond yields). Over the period 1926-2008, capital appreciations (rather than capital losses) were: 0.3% as the geometric mean and 0.6% as the arithmetic mean. Hence, his claim of losses is not correct. Dr. Woolridge also does not identify the magnitude of any difference between

1 the published yield and investor expected returns on bonds. With bond portfolio
2 immunization strategies, a desired rate of return can be achieved over a fixed
3 investment horizon when the duration of a bond portfolio equals the investment
4 horizon. Because of strategies such as these, the probability of realizing expected
5 returns on public utility bonds from issuance to maturity is extremely high.
6 Consequently, Dr. Woolridge's reasoning provides no basis to reject my risk premium
7 approach.

8 As to item (B) (arithmetic vs. geometric mean returns), Dr. Woolridge criticizes
9 my use of arithmetic means in applying the risk premium method. However, as stated
10 in the 2003 Yearbook published by Ibbotson Associates:

11 The arithmetic mean is the rate of return which,
12 when compounded over multiple periods, gives the
13 mean of the probability distribution of ending
14 wealth values....This makes the arithmetic mean
15 return appropriate for forecasting, discounting, and
16 computing the cost of capital. The discount rate
17 that equates expected (mean) future values with
18 the present value of an investment is that
19 investment's cost of capital. The logic of using the
20 discount rate as the cost of capital is reinforced by
21 noting that investors will discount his expected
22 (mean) ending wealth values from an investment
23 back to the present using the arithmetic mean, for
24 the reason given above. They will, therefore,
25 require such an expected (mean) return
26 prospectively (that is, in the present looking toward
27 the future) to commit his capital to the investment.
28

29 In the 2006 Yearbook, Ibbotson added:

30 A simple example illustrates the difference
31 between geometric and arithmetic means.
32 Suppose \$1.00 was invested in a large company
33 stock portfolio that experiences successive annual
34 returns of +50 percent and -50 percent. At the end
35 of the first year, the portfolio is worth \$1.50. At the
36 end of the second year, the portfolio is worth
37 \$0.75. The annual arithmetic mean is 0.0 percent,
38 whereas the annual geometric mean is -13.4
39 percent. Both are calculated as follows:

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$$r_A = \frac{1}{2} (0.50 - 0.50) = 0.0, \text{ and}$$

$$r_G = \left[\frac{0.75}{1.00} \right]^{\frac{1}{2}} - 1 = -0.134$$

The geometric mean is backward-looking, measuring the change in wealth over more than one period. On the other hand, the arithmetic mean better represents a typical performance over single periods.

In general, the geometric mean for any time period is less than or equal to the arithmetic mean. The two means are equal only for a return series that is constant (i.e., the same return in every period). For a non-constant series, the difference between the two is positively related to the variability or standard deviation of the returns. For example, in Table 6-7, the difference between the arithmetic and geometric mean is much larger for risky large company stocks than it is for nearly riskless Treasury bills.

As to item (C), Dr. Woolridge points to the relatively high standard deviation of the historically measured risk premium as an indication of possible forecasting error. But, this is an incorrect criticism. Since common stocks are more risky than bonds or other low risk investments, the standard deviation should be relatively high. If, as Dr. Woolridge asserts, the common equity risk premium is unreliable because the standard deviation is relatively high, then he is repudiating the basic riskiness of common stocks.

As to item (D) (unattainable and allegedly biased historical stock returns), with the proliferation of stock-index mutual funds and exchange-traded funds ("ETF") that are designed to replicate the returns on major indexes, the overall market returns are attainable. Transaction costs associated with both stock-index mutual funds are minimal for low cost managers, such as The Vanguard Group and ETFs can be purchased and sold through discount on-line brokerage accounts. Therefore, Dr.

1 Woolridge's criticisms are misplaced.

2 As to item (E) (company survivorship bias), the survivorship issue is not a valid
3 criticism because the historical returns contain the results of the companies that
4 comprised the index in each year. That is to say, as companies entered and exited the
5 index, the market performance in each year reflected the companies in the index each
6 year. Obviously, Microsoft Corporation had no impact on the S&P 500 return in 1960,
7 nor does Nash-Kelvinator Corporation impact the returns of the S&P 500 in 2010. But,
8 these companies did provide returns to investors in the years that they were included in
9 the index.

10 Finally, to item (F) (The "Peso Problem" – U.S. stock market survivorship bias),
11 Dr. Woolridge provides no quantification of the impact of the "peso problem" on the
12 historical return. Just as higher than expected returns may have been experienced in
13 the past, so too lower than expected returns also were experienced. Further, the
14 possibility of "highly improbable returns" (e.g., positive or negative) is the reason that
15 long-time series are used in the risk premium analysis in order to normalize the
16 influence of unusually high or low returns.

17 **Q. Does this conclude your rebuttal testimony?**

18 **A.** Yes, it does.


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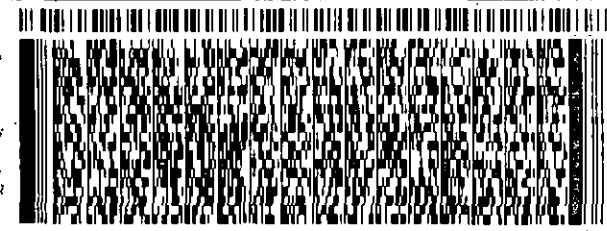
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