COZEN O'CONNOR

February 12, 2021

David P. Zambito
Direct Phone 717-703-5892
Direct Fax 215-989-4216
dzambito@cozen.com

VIA E-FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor -- Filing Room
Harrisburg, PA 17120

Re: Application of Pennsylvania-American Water Company-Wastewater Division under Section 1329 of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1329, for the Acquisition of Royersford Borough's Wastewater System Assets; Docket No. A-2020-3019634, *et al.*

Statements and Exhibits of Pennsylvania-American Water Company, Royersford Borough and the Office of Consumer Advocate

Dear Secretary Chiavetta:

In accordance with Paragraph 2 of Administrative Law Judge Guhl's Interim Order Granting Joint Stipulation for Admission of Evidence, enclosed for filing with the Pennsylvania Public Utility Commission ("Commission") is:

1. A copy of the Interim Order Granting Joint Stipulation for Admission of Evidence;
2. The Statements, Exhibits and Verifications of Pennsylvania-American Water Company that have not been filed previously;
3. The Statements, Exhibits and Verifications of Royersford Borough that have not been filed previously; and
4. The Statements, Exhibits and Verifications of the Office of Consumer Advocate that have not been filed previously.

A copy of this filing is being served in accordance with the attached Certificate of Service.

Thank you for your attention to this filing. Please contact me if you have any question or concern.

Sincerely,

COZEN O'CONNOR

By: David P. Zambito
Counsel for *Pennsylvania-American Water Company*

DPZ
Enclosure
cc: Administrative Law Judge Marta Guhl
Pamela McNeal
Per Certificate of Service
Elizabeth Rose Triscari, Esq.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company-Wastewater Division under Section 1329 of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1329, for the Acquisition of Royersford Borough's Wastewater System Assets	:	Docket No. A-2020-3019634

CERTIFICATE OF SERVICE

I hereby certify that I have this day served true copies of the **Correspondence Filing the Statements, Exhibits and Verifications of Pennsylvania-American Water Company, Royersford Borough and the Office of Consumer Advocate,** upon the parties, listed below in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a party).

DUE TO THE COVID-19 EMERGENCY, THIS DOCUMENT IS BEING SERVED BY E-MAIL ONLY

Sharon E. Webb, Esq. (PA ID 73995)
Office of Small Business Advocate
555 Walnut Street, 1st Floor
Harrisburg, PA 17101
Counsel for *Office of Small Business Advocate*
swebb@pa.gov

Christine Maloni Hoover, Esq. (PA ID 50026)
Erin L. Gannon, Esq. (PA ID 83487)
Harrison W. Breitman, Esq. (PA ID 320580)
Santo G. Spataro, Esq. (PA ID 327494)
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923
Counsel for *Office of Consumer Advocate*
CHoover@paoca.org
EGannon@paoca.org
SSpataro@paoca.org
HBreitman@paoca.org

Erika L. McLain, Esq. (PA ID 320526)
John M. Coogan, Esq. (PA ID 313920)
Bureau of Investigation & Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor West
P.O. Box 3265
Harrisburg, PA 17105-3265
Counsel for *Bureau of Investigation & Enforcement*
carwright@pa.gov
ermclain@pa.gov

Thomas Wyatt, Esq. (PA I.D. 89342)
Matthew S. Olesh, Esq. (PA I.D. 206553)
Sydney N. Melillo, Esq. (PA I.D. 328031)
Obermayer Rebmann Maxwell & Hippel, LLP
Centre Square West
1500 Market Street, Suite 3400
Philadelphia, PA 19102
Counsel for *Royersford Borough*
Thomas.Wyatt@obermayer.com
Matthew.Olesh@obermayer.com
Sydney.Melillo@obermayer.com

Robert Redinger, Jr.
1881 Painters Run Road
Pittsburgh, PA 15241
bobr64@gmail.com

Pamela McNeal
Office of Administrative Law Judge
801 Market Street, Suite 4063
Philadelphia, PA 19107
pmcneal@pa.gov

Respectfully submitted,

David P. Zambito, Esq. (PA ID 80017)
Cozen O'Connor
17 North Second Street, Suite 1410
Harrisburg, PA 17101
(717) 703-5892
dzambito@cozen.com
Counsel for *Pennsylvania-American Water Company*

Date: February 12, 2021

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company-Wastewater Division under Section 1329 of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1329, for the Acquisition of Royersford Borough's Wastewater System Assets	:	A-2020-3019634

INTERIM ORDER
GRANTING JOINT STIPULATION
FOR ADMISSION OF EVIDENCE

Via electronic service only due to Emergency Order at M-2020-3019262

On January 29, 2021, Pennsylvania American Water Company (PAWC), the Office of Consumer Advocate (OCA), the Bureau of Investigation and Enforcement (I&E), The Office of Small Business Advocate (OSBA) and Royersford Borough (Royersford), all parties in the above-captioned proceeding (hereinafter collectively referred to as the "Stipulating Parties"), filed a "Joint Stipulation for Admission of Evidence" (Stipulation) in the above-captioned proceeding. Each of the Stipulating Parties stipulated to the authenticity of the filings, statements, and exhibits listed in the Stipulation and requested that they be admitted into the record of this proceeding on the terms and conditions set forth in the Stipulation. The Stipulation is attached to this Order.

As this request is reasonable, it will be granted.

THEREFORE,

IT IS ORDERED:

1. That the Stipulation, filed on January 29, 2021, and the filings, statements, and exhibits, as well as verifications, listed therein are admitted into the record of this proceeding

on the terms and conditions set forth in the Stipulation; and

2. That one electronic copy of each filing, statement and exhibit listed in the Stipulation, together with accompanying verifications and a copy of this Order, be filed with the Secretary's Bureau of the Commission, within 30 days of the date of this Order, unless previously filed; and,

3. That all filings designated as "Confidential" be placed in non-public folders by the Secretary's Bureau of the Commission.

Date: February 5, 2021

/s/
Marta Guhl
Administrative Law Judge

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Administrative Law Judge
Marta Guhl

Application of Pennsylvania-American Water Company-Wastewater Division under Section 1329 of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1329, for the Acquisition of Royersford Borough's Wastewater System Assets	:	Docket No. A-2020-3019634, *et al.*

JOINT STIPULATION FOR ADMISSION OF EVIDENCE

Pennsylvania-American Water Company ("PAWC"), the Office of Consumer Advocate ("OCA"), the Pennsylvania Public Utility Commission's Bureau of Investigation & Enforcement ("I&E"), the Office of Small Business Advocate ("OSBA") and Royersford Borough ("Royersford"), all active parties to the above-captioned proceeding[1] (hereinafter, collectively referred to as the "Stipulating Parties"), file this "Joint Stipulation for Admission of Evidence" ("Stipulation") in the above-captioned proceeding.[2] In support of the Stipulation, the Stipulating Parties represent as follows:

I. Background

1. Paragraphs 1 through 19 (regarding "Background") of the Settlement are hereby incorporated by reference.

---

[1] The only other active party to this proceeding, Robert Redinger, Jr., has not yet submitted any evidence in this proceeding.

[2] PAWC, OCA, OSBA, I&E and Royersford are also signatories to the "Joint Petition for Approval of Settlement of All Issues" ("Settlement") filed contemporaneously with the Stipulation in the above-captioned proceeding.

II. Stipulation

2. The Stipulating Parties hereby jointly stipulate to the authenticity of and admission into the evidentiary record in this matter of the filings, statements, and exhibits listed below.[3] All such filings, statements, and exhibits are authenticated by verifications from each supporting witness.

A. Pennsylvania-American Water Company Statements and Exhibits

1. a) PAWC Statement No. 1 – Direct Testimony of Michael Salvo, PAWC Statement No. 1, with PAWC Exhibit MS-1 (this Exhibit is the Application, as amended, which was previously filed with the Secretary of the Pennsylvania Public Utility Commission).

b) PAWC Statement No. 1-R – Rebuttal Testimony of Michael Salvo, PAWC Statement No. 1-R.

2. a) PAWC Statement No. 2 – Direct Testimony of Michael J. Guntrum, P.E. and PAWC Exhibits MJG-1 and MJG-2.

b) PAWC Statement No. 2-R – Rebuttal Testimony of Michael J. Guntrum, P.E.

3. a) PAWC Statement No. 3 – Direct Testimony of Rod P. Nevirauskas, with PAWC Exhibit RPN-1.

b) PAWC Statement No. 3-R – Rebuttal Testimony of Rod P. Nevirauskas.

4. a) PAWC Statement No. 4 – Direct Testimony of Jerome C. Weinert, PE, ASA, CDP, with PAWC Exhibit JCW-1.

b) PAWC Statement No. 4-R – Direct Testimony of Jerome C. Weinert, PE, ASA, CDP, with PAWC Exhibit JCW-2.

5. PAWC Statement No. 5-SR – Surrebuttal Testimony of Ashley E. Everette.

B. Royersford Statements and Exhibits

1. a)Royersford Statement No. 1 – Direct Testimony of Michael A. Leonard.

---

[3] The filings, statements, and exhibits are unchanged from the versions that were previously served upon the Honorable Administrative Law Judge Marta Guhl ("Presiding Officer") and the parties in this proceeding.

b) Royersford Statement No. 1-R – Rebuttal Testimony of Michael A. Leonard.
2. a) Royersford Statement No. 2 – Direct Testimony of Harold Walker III, with Appendix A.

b) Royersford Statement No. 2-R – Rebuttal Testimony of Harold Walker III, with Exhibit HW-1.

C. **OCA Statements and Exhibits**

1. a) OCA Statement 1 – Direct Testimony of David J. Garrett, with Appendices A through C and OCA Exhibits DJG-1 through DJG-23.

b) OCA Statement 1-S – Surrebuttal Testimony of David J. Garrett.

2. a) OCA Statement 2 – Direct Testimony of Noah D. Eastman, with Appendix A and OCA Exhibit NDE-1 (as adopted by Morgan N. DeAngelo in OCA Statement No. 2-S).

b) OCA Statement 2-S – Surrebuttal Testimony of Morgan N. DeAngelo, with Appendix A.

D. **OSBA Statements**

1. a) OSBA Statement No. 1 – Direct Testimony of Brian Kalcic, with Appendix A.

b) OSBA Statement No. 2-S – Surrebuttal Testimony of Brian Kalcic.

E. **I&E Statements and Exhibits**

1. a) I&E Statement No. 1 – Direct Testimony of D.C. Patel, with I&E Exhibit No. 1.

b) I&E Statement No. 1-SR – Surrebuttal Testimony of D.C. Patel.

2. a) I&E Statement No. 2 – Direct Testimony of Ethan H. Cline.

b) I&E Statement No. 2-SR – Surrebuttal Testimony of Ethan H. Cline.

3. This Stipulation is presented by the Stipulating Parties in conjunction with the

Settlement, which is intended to settle all issues in the above-captioned proceeding. If the Commission rejects or otherwise modifies the Settlement, the Stipulating Parties reserve their respective procedural rights to object to the admission of the above-referenced statements and exhibits, submit additional testimony and exhibits, and cross-examine witnesses at on-the-record evidentiary hearings.

4. This Stipulation is being presented, in conjunction with the Settlement, only to resolve issues in the above-captioned proceeding. Regardless of whether this Stipulation is approved, no adverse inference shall be drawn, nor shall prejudice result to any Stipulating Party in this or any future proceeding as a consequence of this Stipulation, or any of its terms or conditions.

5. Verified Direct Statements and Exhibits of PAWC and Royersford were previously filed with the Commission's Secretary's Bureau. "Confidential" materials filed with the Secretary's Bureau of the Commission by the Stipulating Parties have been so marked and should be placed in non-public folders by the Secretary's Bureau. One electronic copy of the remaining statements and exhibits listed in Paragraph 2 above, together with verifications from the supporting witnesses and the Presiding Officer's order granting this Stipulation, will be filed with the Secretary's Bureau for inclusion in the official case record upon approval of this Stipulation. Additionally, the Stipulating Parties shall ensure that electronic copies of statements and exhibits are filed with the Commission's Secretary as required by 52 Pa. Code § 5.412a (regarding "Electronic submission of pre-served testimony").

6. Attached hereto as **Appendix A** is a proposed "Order Granting Joint Stipulation for Admission of Evidence" for consideration by the Presiding Officer.

III. Request for Relief

WHEREFORE, the Stipulating Parties, by their respective counsel, respectfully request that the Honorable Administrative Law Judge Marta Guhl admit the foregoing statements and exhibits into the record in this proceeding on the terms and conditions set forth in this Stipulation.

Respectfully submitted,

/s/
David P. Zambito, Esq. (PA ID 80017)
Jonathan P. Nase, Esq. (PA ID 44003)
Cozen O'Connor
17 North Second Street, Suite 1410
Harrisburg, PA 17101
(717) 703-5892

Elizabeth Rose Triscari, Esq. (PA ID 306921)
Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055
(717) 550-1574
Counsel for *Pennsylvania-American Water Company*

/s/
Thomas Wyatt, Esq. (PA ID 89342)
Matthew S. Olesh, Esq. (PA ID 206553)
Sydney N. Melillo, Esq. (PA ID 328031)
Obermayer Rebmann Maxwell & Hippel LLP
Centre Square West
1500 Market Street, Suite 3400
Philadelphia, PA 19102
(215) 665-3000
Counsel for *Royersford Borough*

/s/
Christine Maloni Hoover, Esq. (PA ID 50026)
Erin L. Gannon, Esq. (PA ID 83487)
Harrison W. Breitman, Esq. (PA ID 320580)
Santo G. Spataro, Esq. (PA ID 327494)
Office of Consumer Advocate
555 Walnut Street
Forum Place, 5th Floor
Harrisburg, PA 17101-1923
(717) 783-5048
Counsel for *Office of Consumer Advocate*

/s/
Erika L. McLain, Esq. (PA ID 320526)
John M. Coogan, Esq. (PA ID 313920)
Pennsylvania Public Utility Commission
Bureau of Investigation and Enforcement
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120
(717) 783-6170
Counsel for *Bureau of Investigation and Enforcement*

/s/
Sharon Webb, Esq. (PA ID 73995)
Office of Small Business Advocate
555 Walnut Street
Forum Place, 1st Floor
Harrisburg, PA 17101
(717) 783-2525
Counsel for *Office of Small Business Advocate*

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company-Wastewater Division under Section 1329 of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1329, for the Acquisition of Royersford Borough's Wastewater System Assets	: : : :	Docket Nos. A-2020-3019634, *et al.*

REBUTTAL TESTIMONY OF MICHAEL SALVO
ON BEHALF OF
PENNSYLVANIA-AMERICAN WATER COMPANY

Date: January 6, 2021

PAWC Statement No. 1-R

PENNSYLVANIA-AMERICAN WATER COMPANY
REBUTTAL TESTIMONY OF MICHAEL SALVO

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS FOR THE RECORD.

A. My name is Michael Salvo and my business address is 852 Wesley Drive, Mechanicsburg, PA 17055.

Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by PAWC[1] as Senior Manager of Business Development.

Q. HAVE YOU SUBMITTED ANY OTHER TESTIMONY IN THIS PROCEEDING?

A. Yes, I submitted direct testimony identified as PAWC Statement No. 1.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. My rebuttal testimony responds to the direct testimony of Noah D. Eastman, who testified on behalf of the Office of Consumer Advocate ("OCA"). Specifically, I will address Mr. Eastman's testimony regarding the public benefits of the Transaction.

[1] Unless otherwise indicated, all capitalized terms used here have the same definition as set forth in my Direct Testimony.

THE TRANSACTION HAS AFFIRMATIVE PUBLIC BENEFITS OF A SUBSTANTIAL NATURE

Q. IN HIS DIRECT TESTIMONY, OCA ST. NO. 2 PAGE 6, MR. EASTMAN RECOMMENDS THAT THE COMMISSION DISAPPROVE THE TRANSACTION. PLEASE RESPOND.

A. Mr. Eastman concludes that the benefits of the Transaction are not greater than the costs. OCA St. No. 2 p. 16. Mr. Eastman's conclusion is based primarily on his discussion of the possible rate impacts of the Transaction. This discussion, in turn, is based on the assertion that "[t]he proposed Section 1329 rate base of $13 million far exceeds the rate base established by traditional ratemaking for current Royersford ratepayers under Borough ownership." OCA St. No. 2 p. 16. As such, Mr. Eastman's testimony reflects the OCA's continuing opposition to fair market valuation acquisitions pursuant to Section 1329.

Section 1329 has been adopted by the General Assembly and is the law of the land, even though the OCA may not agree with it. The Commission is the agency charged with implementing Section 1329. The Commission should implement the law in a way to achieve the Legislature's policy goal of allowing municipalities who wish to monetize their assets to realize purchase prices which are negotiated based upon the utility's ability to rate base the fair market value of the systems. If the Commission disapproves Transactions because the fair market valuation process results in a rate base in excess of that allowed by traditional ratemaking principles, it would undermine the Legislature's intent in adopting Section 1329.

Q. DO YOU AGREE WITH MR. EASTMAN'S ASSERTION, ON PAGE 6 OF HIS DIRECT TESTIMONY, THAT COMMISSION APPROVAL OF THE

TRANSACTION WOULD RESULT IN RATE INCREASES FOR CURRENT CUSTOMERS OF ROYERSFORD, CURRENT PAWC WATER CUSTOMERS AND CURRENT PAWC WASTEWATER CUSTOMERS?

A. I agree with Mr. Eastman that the Commission should consider the potential rate impacts of the Transaction, but, in my opinion, that factor is one of many and should be given comparatively little weight because any adverse impact is so speculative. No one can reasonably predict, at this time, the rate impact of the Transaction on Royersford's or PAWC's current customers – particularly over the long term (say, the next 20 years). Ultimate ratemaking discretion is vested with the Commission and it has many tools at its disposal to ensure that rates for all ratepayers are just and reasonable.

Mr. Eastman calculates the potential rate impact of the Transaction, in PAWC's next base rate case, using three potential scenarios: (a) all of the alleged shortfall in the revenue requirement of the System would be allocated to current Royersford customers, (b) all of the alleged shortfall in the revenue requirement of the System would be allocated to current PAWC wastewater customers, and (c) all of the alleged shortfall in the revenue requirement of the System would be allocated to current PAWC water customers. OCA St. No. 2 p. 16. At this time, however, it is impossible to determine which, if any, of these scenarios will come to pass in PAWC's next base rate case.

Similarly, no one can say for certain, what the rate impact of the Transaction will be three or four base rate cases from now. The nature of a large water/wastewater system is that some customers may pay subsidies today, but receive subsidies tomorrow, if their system requires significant capital expenditures. As a result, the Commission should not

rely on Mr. Eastman's testimony speculating on the short-term rate impacts of the Transaction.

To the extent that the rate impact of the Transaction is ascertainable at this time, it is because of the provisions of Section 1329, which create a valuation methodology that will almost always result in a higher value for a water or wastewater system than will the traditional methodology using depreciated original cost. Mr. Eastman essentially argues that the acquisition should be disapproved as against the public interest, pursuant to 66 Pa. C.S. § 1103, because Section 1329 would allow PAWC to place an additional $13,000,000 into its rate base. I am advised by counsel that Section 1329 should be construed in conjunction with Section 1103, rather than as an excuse for disapproving transactions pursuant to Section 1103.

Q. AT PAGE 7 OF HIS DIRECT TESTIMONY, MR. EASTMAN STATES "THE COST OF PAWC OWNERSHIP, INCLUDING THE PROPOSED PAWC RATEMAKING RATE BASE, IS MUCH HIGHER THAN OWNERSHIP BY THE BOROUGH, UNFAIRLY BURDENING EXISTING PAWC AND ROYERSFORD RATEPAYERS." PLEASE RESPOND.

A. Mr. Eastman contends that the cost of capital of an investor-owned utility is higher than that of a municipally-owned system. OCA St. No. 2 p. 7. He also contends that municipally-owned utilities are less costly to ratepayers than investor-owned utilities because the latter pay taxes and pay shareholders. OCA St. No. 2 p. 10. Mr. Eastman's testimony therefore indirectly suggests that all utility systems should be owned by tax-exempt municipal entities rather than investor-owned utilities that pay taxes toward other

essential public services. This is plainly contrary to the Legislature's policy goal in enacting Section 1329 to encourage the sale of municipal systems to investor-owned utilities using the fair market valuation process. Mr. Eastman's argument also erroneously assumes that Royersford customers are currently paying cost of service, are not having their wastewater service subsidized by other forms of tax revenues and government grants,[2] and are contributing adequately toward the future needs of the system (including remediation of environmental deficiencies).

Q. AT PAGE 6 OF HIS DIRECT TESTIMONY, MR. EASTMAN CONTENDS THAT ECONOMIES OF SCALE ARE UNSUPPORTED AND UNLIKELY TO BE ACHIEVED. PLEASE RESPOND.

A. I strongly disagree. First, economies of scale clearly will be achieved because PAWC provides water service in Royersford. After closing, PAWC will be able to achieve economies of scale by sharing local resources that currently cannot be shared. For example:

- PAWC will eliminate the duplication of services between the Royersford System and PAWC's system (e.g., PA One Call Response, billing and call center).
- PAWC will eliminate the duplication of equipment between the Royersford System and PAWC's system by utilizing equipment in nearby systems for collection system maintenance, televising, flushing and emergency repair.

In addition, PAWC will be able to coordinate water and wastewater projects, saving money for ratepayers and reducing disruption for Borough residents from projects in public rights-of-way.

[2] It is worth noting that Mr. Eastman cites Appendix E of the Application as demonstrating that the revenues of the System are $860,000 annually. OCA St. No. 2 p. 5. That Appendix also shows that the System currently has an annual deficit of $30,000.

Second, PAWC has supply chain personnel dedicated to obtaining favorable pricing and terms. PAWC, partnered with American Water, has greater purchasing power due to its larger size, resulting in favorable purchasing contracts for chemicals, materials, supplies and waste disposal. Benefits of this increased purchasing power include below-market pricing, price stability, improved warranties, and secure supply channels. For example, American Water puts approximately 50,000 miles of main in the ground each year. This has allowed it to work directly with manufacturers for national pipe pricing agreements that currently beat the market index by 37%. Yet another example of purchasing power is as a Top 100 Private U.S. Fleet, American Water purchases 300-500 vehicles per year. Because of our scale, we are able to negotiate directly with manufacturers for light duty vehicle pricing averaging about 22% below dealer invoice. In addition, we track an 8.27% savings in the chemical space through volume negotiated pricing across multiple suppliers.

Third, efficiencies will be achieved because of PAWC's greater experience and expertise in managing wastewater systems. When problems arise at the System, PAWC's wealth of experience and trained staff will enable PAWC to respond more quickly and effectively than could the Borough's two existing staff members. For example, PAWC will utilize its Royersford water and Exeter staff to respond quickly to routine and emergency PA One Calls, customer service inquiries, and perform routine maintenance of the wastewater collections system as well support local infrastructure replacement projects that would otherwise be managed by only two Borough employees or a third party contractor.

Mr. Eastman concludes that the Transaction is unlikely to produce economies of scale, in part, because the rate base per customer is lower for Royersford's customers than for PAWC's existing customers. OCA St. No. 2 p. 15. This comparison is biased and invalid. Mr. Eastman calculates the rate base for Royersford's customers using the fair market valuation procedure, whereas most of PAWC's existing rate base was established using original cost less depreciation. Since the Section 1329 procedure was developed, in part, to allow municipalities to receive greater amounts for their water and wastewater systems, Mr. Eastman's calculations are hardly surprising.[3] In any event, comparisons of rate base per customer of the separate systems are irrelevant for determining whether the Transaction will allow the acquiring entity to achieve economies of scale.

Q. AT PAGE 16 OF HIS DIRECT TESTIMONY, MR. EASTMAN CLAIMS THAT MANY OF THE BENEFITS OF THE TRANSACTION LACK QUANTITATIVE SUPPORT. DO YOU AGREE WITH MR. EASTMAN'S SUGGESTION THAT BENEFITS OF THE TRANSACTION MUST BE QUANTIFIABLE?

A. No. The Transaction can have very real and valuable benefits, even if those benefits are not quantifiable. The Commission should consider these benefits rather than ignoring them, as suggested by Mr. Eastman.

Let me give two specific examples. One benefit of the Transaction is that, after closing, the current customers of Royersford will be served by a utility subject to regulation by the Commission. This means that consumers who have complaints about their service

[3] *Compare* Mr. Eastman's testimony to the Direct Testimony of Rod P. Nevirauskas, PAWC St. No. 3 p. 7 (comparing the rate base per customer of the instant Section 1329 Transaction to the rate base per customer in two recently-approved Section 1329 transactions). The Commission has found transactions with similar rate bases per customer to be in the public interest.

can file formal and informal complaints at the Commission. This also means that rates can only be increased with the Commission's approval after a fair and reasonable process in a base rate case or other rate proceeding. These protections provide great value to customers. I should also mention that customers of Commission-regulated utilities are currently protected by restrictions on the termination of utility service.[4] *Public Utility Service Termination Moratorium – Modification of March 13th Emergency Order*, Docket No. M-2020-3019244 (Order entered October 13, 2020). Royersford voluntarily stopped all collection efforts due to the COVID-19 Pandemic and has not yet resumed them. Nevertheless, it is significant to note that Royersford was not subject to the Commission's Orders limiting the termination of service due to non-payment, and Royersford could re-start its collection efforts at any time without any additional consumer protections.

Second, after closing on the Transaction, current customers of Royersford will have access to PAWC's customer assistance programs. Mr. Eastman admits that Royersford does not have a customer assistance program. OCA St. No. 2, p. 5. The opportunity to participate in a customer assistance program does not have a quantifiable value, but especially considering the economic impacts of the COVID-19 Pandemic, such protection is quite valuable to customers.

Q. AT PAGE 6 OF HIS DIRECT TESTIMONY, MR. EASTMAN CLAIMS THAT "PAWC HAS NOT SUPPORTED ITS CLAIM THAT THE ACQUISITION HAS AFFIRMATIVE PUBLIC BENEFITS FOR ITS EXISTING WATER AND

4 PAWC voluntarily stopped terminations for non-payment even before the issuance of the Commission's March 13, 2020 Emergency Order.

WASTEWATER CUSTOMERS AND THE ACQUIRED BOROUGH CUSTOMERS." PLEASE RESPOND.

A. When looking at the benefits and detriments of the Transaction, the focus of the analysis must be on all affected parties, not merely a particular group or a particular geographic area. Mr. Eastman's analysis is incomplete because he does not consider the Transaction's impact on all affected parties. Additionally, Mr. Eastman's analysis reaches the wrong conclusion because he does not separately analyze the impact of the Transaction on each affected party.

Q. WHAT PARTIES WILL BE AFFECTED BY THE TRANSACTION?

A. In my opinion, the Transaction impacts the public-at-large, the Borough, the existing customers of Royersford, the existing water customers of PAWC, and the existing wastewater customers of PAWC.

Q. HOW WILL THE TRANSACTION AFFECT THE PUBLIC-AT-LARGE?

A. As discussed above, the Transaction will benefit members of the public-at-large by promoting the Legislature's policy goals when it enacted Section 1329. That is, the Transaction will enable a municipality to address its needs by monetizing its assets for their fair market value.

In addition, the Transaction will promote the Commission's policy favoring regionalization and consolidation of water and wastewater systems. I am advised by counsel that the Commission has a Statement of Policy on Acquisitions of Viable Water and Wastewater Systems, 52 Pa. Code § 69.721, which states in part:

> The Commission believes that further consolidation of water and wastewater systems within this Commonwealth may, with appropriate management, result in greater environmental and economic benefits to customers. The regionalization of water and wastewater systems through mergers and acquisitions will allow the water industry to institute better management practices and achieve greater economies of scale.

Michael Guntrum's testimony explains why the consolidation of the Royersford and PAWC Systems will result in environmental benefits. In his Rebuttal Testimony, Mr. Guntrum discusses recent exceedances in the Royersford System and PAWC's plans for making capital improvements and operational changes to address these issues after closing. PAWC St. No. 2-R, pp. 2. In his Direct Testimony, Mr. Guntrum explains why PAWC is in a better position than Royersford to comply with existing, as well as increasingly stringent, environmental requirements. PAWC St. No. 2 pp. 7-9. Indeed, protection of the environment is a benefit to all citizens of the Commonwealth.[5] Pollution is not contained by municipal boundaries.

My direct testimony, as well as Mr. Nevirauskas' direct and rebuttal testimony, explains why the consolidation of the Royersford and PAWC Systems will result in economic benefits. For example, the Transaction will spread fixed costs across a larger asset platform and customer base. Moreover, because of its size, expertise, and economies of scale, PAWC will be able to improve efficiencies and mitigate costs that would otherwise be incurred to operate the Royersford System and fund necessary improvements. These efficiencies could not be achieved if the Transaction would be disapproved.

I do not see how the Transaction would have a detrimental impact on the public-at-large, and Mr. Eastman certainly does not describe any detrimental impacts on the public-

[5] *See,* PA. CONST. Art. I, § 27 ("Environmental Rights Amendment").

at-large. Therefore, I conclude that the Transaction has a net positive impact on the public-at-large.

Significantly, Royersford's existing customers, PAWC's existing water customers, and PAWC's existing wastewater customers are all members of the public-at-large. To the extent that the Transaction produces economic benefits, those benefits flow beyond the System's Service Territory. Similarly, to the extent that the Transaction produces environmental benefits, those benefits extend beyond the System's Service Territory. Michael Guntrum's rebuttal testimony demonstrates that the Borough's nine recent exceedances resulted in pollutants being discharged into the waters of the Commonwealth, which affects the residents of Royersford as well as residents of other municipalities (*i.e.*, members of the public-at-large). As such, the benefits/costs of the Transaction for the public-at-large should be considered when determining whether the Transaction benefits the existing customers of Royersford, PAWC's existing water customers, and PAWC's existing wastewater customers.

Q. HOW WILL THE TRANSACTION AFFECT THE BOROUGH?

A. The elected representatives of the people of Royersford engaged in a public process to study the possible sale of the System, and determined that it was in the best interest of their constituents to sell the System to PAWC. Royersford St. No. 1 pp. 6-9. Michael Leonard's testimony describes why the elected representatives of the people of Royersford concluded that the benefits of the Transaction outweighed the costs.

Among other things, the Transaction will improve the Borough's financial condition and outlook, and will enable the Borough to reallocate its administrative time to

focus on other key initiatives of the Borough. Royersford St. No. 1 pp. 3-4 and 9-12. In addition, since PAWC is offering employment to Royersford's two existing wastewater system employees, the Transaction will allow the Borough to preserve all jobs related to the System.

I do not see how the Transaction will have a detrimental impact on the Borough, and Mr. Eastman certainly does not describe any detrimental impacts on the Borough. Therefore, I conclude that the Transaction has a net positive impact on the Borough.

Q. HOW WILL THE TRANSACTION AFFECT THE EXISTING CUSTOMERS OF ROYERSFORD?

A. As discussed earlier in my testimony, the existing customers of Royersford will enjoy the same benefits from the Transaction as all other members of the public-at-large. My Direct Testimony, pp. 15-18, the Direct Testimony of Mr. Guntrum, pp. 8-17, and the Direct Testimony of Mr. Leonard, pp. 3-5 and 9-12, describe the many benefits of the Transaction for the existing customers of Royersford. Mr. Eastman suggests that the Transaction will not benefit existing Royersford customers much, because Royersford currently offers some of the same services as will be offered by PAWC after closing on the Transaction – but even Mr. Eastman admits that Royersford does not offer all of the services that PAWC will offer after closing. OCA St. No. 2 p. 5.

Mr. Eastman also suggests that the Transaction will not benefit the existing customers of Royersford because there is no evidence of inadequate service by Royersford. To the contrary, Mr. Guntrum's Rebuttal Testimony describes several recent examples of environmental exceedances by the Borough. PAWC St. No. 2-R p. 2. In any event, Mr.

Eastman's assertion that Royersford currently offers "adequate" service is no response to the preponderance of the evidence demonstrating that PAWC will provide better service. Better service is a benefit to Royersford's existing customers.

Mr. Eastman contends that the Transaction's costs outweigh its benefits, with respect to the existing customers of Royersford, because of the higher cost of ownership under an investor-owned utility. OCA St. No. 2 p. 12. As discussed earlier in my testimony, Mr. Eastman's testimony is speculative as a factual matter. In addition, as a policy matter, Mr. Eastman's testimony flies in the face of the Legislature's intent in enacting Section 1329, which was to facilitate the sale of municipal water and wastewater systems to investor-owned utilities.

In my view, the direct and rebuttal testimony of PAWC and Royersford contain a long list of specific and definite benefits of the Transaction to Royersford's existing customers. These benefits far outweigh the detriments alleged by Mr. Eastman, as demonstrated by the decision of the elected representatives of the people of Royersford to sell the System. Therefore, I conclude that the Transaction has a net positive impact on Royersford's existing customers.

Q. HOW WILL THE TRANSACTION AFFECT PAWC'S EXISTING WATER CUSTOMERS?

A. Mr. Eastman claims that the Transaction would have a detrimental impact on PAWC's existing water customers because it would impose "significant additional costs and risks" on PAWC's existing water customers. OCA St. No. 2 p. 6. Mr. Eastman contends that "[t]he allocation of wastewater rate base to water customers under [66 Pa. C.S. §] 1311(c)

will create inefficiencies and inappropriately burden PAWC customers across the state." OCA St. No. 2, p. 7.

I am advised by counsel that Section 1311(c) states, in part: "The commission, when setting base rates, after notice and an opportunity to be heard, may allocate a portion of the wastewater revenue requirement to the combined water and wastewater customer base *if in the public interest*." (Emphasis added). Thus, the Transaction will have absolutely no impact on the rates of PAWC's existing water customers if the Commission finds that it is not in the public interest for PAWC to allocate a portion of its wastewater revenue requirement to water customers. Even if the Commission does find, in a base rate case at some indefinite point in the future, that it is in the public interest for PAWC to allocate a portion of its wastewater revenue requirement to water customers, this Transaction should not be disapproved; there is no reason for disapproving this Transaction because of a potential future event that is in the public interest.

As explained earlier, PAWC's existing water customers will benefit from the Transaction in the same manner as all other members of the public-at-large. Therefore, I conclude that the Transaction has a net positive impact on PAWC's existing water customers.

I should add one more point. Mr. Eastman's analysis seems to be limited to the class of all existing PAWC water customers. I believe the Commission should also consider the impact of the Transaction on a subset of this group: those current PAWC water customers who are also current Royersford wastewater customers. After closing on the Transaction, these customers will have the ability to pay their water and sewer bills on one bill rather than two. Additionally, they will have the convenience of calling one

company for service, regardless of whether they need water or wastewater service. Other benefits of the Transaction for these customers were discussed earlier in my testimony. In my opinion, the Transaction will have a net positive impact on this subset of water customers.

Q. HOW WILL THE TRANSACTION AFFECT PAWC'S EXISTING WASTEWATER CUSTOMERS?

A. Mr. Eastman claims that the Transaction will have a detrimental impact on PAWC's existing wastewater customers because it will "create significant additional costs and present[] significant risks" for these customers. OCA St. No. 2 p. 6. Mr. Eastman contends that the allegedly higher costs of PAWC's ownership of the System (compared to Borough ownership) outweigh any benefits of the Transaction to PAWC's existing wastewater customers. OCA St. No. 2 pp. 6-7.

Mr. Eastman's argument suffers from numerous flaws, most of which were discussed earlier in my testimony. Mr. Eastman essentially argues that the Commission should disapprove the Transaction because of the amount that would be placed into PAWC's rate base pursuant to Section 1329 as a result of the Transaction. The fair market valuation of a System pursuant to Section 1329, however, should not be a reason for disapproving the Transaction pursuant to Section 1103. In addition, Mr. Eastman's analysis is speculative and incomplete (it focuses exclusively on the Transaction's possible impact on rates in PAWC's next base rate case, without considering the Transaction's possible impact on rates in the long term). Finally, Mr. Eastman concluded that PAWC failed to provide satisfactory evidence that the Transaction will result in economies of

scale. I have already shown that PAWC produced specific testimony demonstrating that economies of scale will result from the Transaction, mitigating future rate increases for PAWC's existing wastewater customers.

In contrast, PAWC has demonstrated that the Transaction will have no immediate impact on the rates of PAWC's existing wastewater customers. PAWC St. No. 3 p. 8. In the long term, the Transaction will affirmatively benefit existing wastewater customers by adding approximately 1,600 new customers to PAWC's existing wastewater customer base of approximately 74,754 customers (or an increase of more than 2.1%). PAWC St. No. 1 p. 14. This expansion of PAWC's wastewater customer base will affirmatively benefit PAWC's existing wastewater customers because there will be more customers to share future infrastructure investment costs, which promotes stable rates across the entire PAWC wastewater system. Customers who benefit from subsidies today will, in the future, help subsidize other customers on the PAWC system. Being able to spread the costs of investing in and maintaining public wastewater systems over a growing customer base is essential to the continued success of wastewater systems and maintaining reasonable rates for all customers.

Finally, of course, PAWC's existing wastewater customers will enjoy the same benefits from the Transaction as all other members of the public-at-large. These benefits include, but are not limited to, the benefits of promoting the Legislature's policy goals in enacting 66 Pa. C.S. § 1329 and the Commission's policy goals of promoting regionalization and consolidation.

In my mind, the specific, concrete affirmative benefits of the Transaction, with respect to existing PAWC's existing wastewater customers, outweigh the speculative

detriments of the Transaction. Any detriments to this group are certainly not so great as to warrant disapproving a Transaction that has so many positive impacts on other groups.

Q. ARE THERE ANY ADDITIONAL POINTS THAT YOU WISH TO ADD, IN RESPONSE TO MR. EASTMAN'S DIRECT TESTIMONY?

A. To summarize: in my view, the Transaction's benefits outweigh the costs for each group affected by the Transaction. Consequently, I urge the Commission to promptly approve the Transaction.

CONCLUSION

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding. Thank you.

VERIFICATION

I, Michael Salvo hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unsworn falsification to authorities.

Michael Salvo, Senior Manager, Business Development
Pennsylvania-American Water Company

Dated 1/29/2021

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of the Royersford Borough's assets, properties and rights related to its wastewater treatment, transportation and collection system facilities to Pennsylvania-American Water Company, and (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in Royersford Borough and a portion of the Township of Upper Providence, Montgomery County, Pennsylvania.	:	Docket No. A-2020-3019634, *et al.*

REBUTTAL TESTIMONY OF MICHAEL J GUNTRUM, P.E. ON BEHALF OF PENNSYLVANIA-AMERICAN WATER COMPANY

Date: January 6, 2021

PAWC Statement No. 2-R

REBUTTAL TESTIMONY OF
MICHAEL J. GUNTRUM, P.E.

INTRODUCTION

Q. Please state your name and business address for the record.

A. Michael J. Guntrum, 852 Wesley Drive, Mechanicsburg, PA 17055.

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

A. I am employed by Pennsylvania-American Water Company ("PAWC" or the "Company") as a Senior Project Engineer.

Q. Have you submitted any other testimony in this proceeding?

A. Yes, I submitted PAWC Statement No. 2 which includes a statement of my professional experience and education.

Q. What is the purpose of your rebuttal testimony?

A. I will address a portion of the direct testimony of Office of Consumer Advocate ("OCA") witness Mr. Noah D. Eastman. Specifically, I will address Mr. Eastman's contention that PAWC's acquisition of the Royersford wastewater system lacks substantial affirmative public benefits.

PUBLIC BENEFITS

Q. ON P. 6 LINES 15-17 OF OCA WITNESS MR. EASTMAN'S DIRECT TESTIMONY, HE STATES THAT ROYERSFORD HAS PROVIDED AND CAN CONTINUE TO PROVIDE ADEQUATE SERVICE TO ITS CUSTOMERS AND

THAT AN ACQUISITION BY PAWC WILL ONLY MAINTAIN EXISTING HIGH QUALITY SERVICE. PLEASE RESPOND.

A. Since January 2019 Royersford has had nine exceedances to its NPDES permit. These exceedances are for a variety of permitted parameters that include Carbonaceous Biochemical Oxygen Demand, Total Phosphorus, Total Residual Chlorine, and Total Suspended Solids. These exceedances are reported instances where the treatment plant discharged pollutants to the waters of the Commonwealth in excess of its permitted limits. These numerous exceedances to Royersford's NPDES permit show that PAWC is better capable than Royersford to operate the System, now and into the future, because of PAWC's extensive experience, expertise, and financial and technical resources in providing wastewater. PAWC's superior capabilities will not only benefit the System and its customers in a meaningful way but will also benefit the environment of the Commonwealth in general.

PAWC has plans for making capital improvements and operational changes to address these issues after closing. Specifically, PAWC plans to improve the chemical feed systems and provide 24 hour monitoring via a SCADA system. In addition, PAWC will provide greatly enhanced technical, operational, and engineering support to the operations staff at Royersford to optimize operations of the treatment processes. PAWC has the experience, expertise and resources to not only provide adequate, but high quality wastewater service.

CONCLUSION

Q. Does this conclude your testimony?

A. Yes. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding. Thank you.

VERIFICATION

I, MICHAEL J. GUNTRUM hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unsworn falsification to authorities.

Michael J. Guntrum, P.E. Senior Project Engineer

Dated: 1/29/2021

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of the Royersford Borough assets, properties and rights related to its wastewater collection and treatment system to Pennsylvania-American Water Company, and (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in the Royersford Borough and a portion of Upper Providence Township, Montgomery County, Pennsylvania	:	Docket No. A-2020-3019634, *et al.*

REBUTTAL TESTIMONY OF
ROD P. NEVIRAUSKAS ON BEHALF OF
PENNSYLVANIA-AMERICAN WATER COMPANY

Date: January 6, 2021

PAWC Statement No. 3-R

PENNSYLVANIA-AMERICAN WATER COMPANY
REBUTTAL TESTIMONY OF ROD P. NEVIRAUSKAS

INTRODUCTION

Q. Please state your name and business address for the record.

A. Rod P. Nevirauskas, 852 Wesley Drive, Mechanicsburg, PA 17055.

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

A. I am employed by American Water Works Service Company ("Service Company") as Senior Director of Rates and Regulations for the Mid-Atlantic Division, which includes Pennsylvania-American Water Company ("PAWC" or the "Company").

Q. Have you submitted any other testimony in this proceeding?

A. Yes, I submitted PAWC Statement No. 3 which includes a statement of my professional experience and education.

Q. What is the purpose of your rebuttal testimony?

A. I will address certain portions of the direct testimony of the Pennsylvania Public Utility Commission's ("Commission") Bureau of Investigation and Enforcement ("I&E") witness Mr. Ethan H. Cline, Office of Small Business Advocate ("OSBA") witness Mr. Brian Kalcic and Office of Consumer Advocate ("OCA") witness Mr. Noah D. Eastman. Specifically, I will address the following issues: (1) the recommendations of Mr. Eastman regarding PAWC's Long Term Infrastructure Improvement Charge ("LTIIP"), deferred depreciation and post-in service AFUDC; (2) the concerns of Mr. Eastman on cost of ownership, rate impacts and 1311(c) revenue allocation; (3) the recommendation of Mr. Kalcic that the Commission modify the Asset Purchase Agreement; (4) the recommendation of Mr. Kalcic regarding the rate design in PAWC's next base rate case;

and (5) the recommendation of Mr. Cline and Mr. Eastman that PAWC provide a separate cost of service study for the Royersford wastewater system.

Q. How do you respond to OCA's proposed condition #1 (OCA St. 2, page 17) regarding an approved LTIIP that includes the Royersford system and does not reprioritize capital improvements for existing customers?

A. PAWC does not object to this recommendation.

Q. How do you respond to OCA's proposed condition #2 (OCA St. 2, page 17) that AFUDC and deferred depreciation should be addressed in PAWC's next base rate case?

A. This recommendation is consistent with my direct testimony. PAWC does not object to this recommendation.

AFFIRMATIVE PUBLIC BENEFITS

Q. How do you respond to OCA witness Eastman's affirmative benefit analysis with respect to the average rate base per acquired Royersford customer?

A. Pursuant to Section 1329 of the Pennsylvania Public Utility Code ("Code"), the fair market value to be used as the ratemaking rate base of the acquired system is $13,000,000 which is the lesser of the negotiated purchase price ($13,000,000) and the average of the two appraisals ($13,769,801 + $13,219,000)/2 = $13,494,401). As stated in my direct testimony, the average rate base per customer to be acquired is $8,025.

OCA witness Eastman compares the average rate base per acquired Royersford customer to PAWC's average rate base per existing customer. Mr. Eastman's testimony states that "PAWC's current average rate base per customer is approximately $6,600 (Exhibit NDE-1)" (OCA St. 2, page 15, lines 25-26). Mr. Eastman's exhibit shows that this calculation is a composite of PAWC's water and wastewater rate base amounts, and Mr.

Eastman calculated PAWC's existing rate base per *wastewater* customer to be $9,566, which is more than the average rate base per customer in this wastewater acquisition.

Mr. Eastman compares the rate base per acquired customer under "traditional ratemaking" to the ratemaking rate base per acquired customer PAWC calculated pursuant to Section 1329 of the Code. OCA St. No. 2, p. 9. While Mr. Eastman does not define "traditional ratemaking," he appears to be comparing net capital assets from the Borough's financial statement and the fair market value ratemaking rate base pursuant to Section 1329, which are not necessarily comparable and not a reasonable basis for analyzing this acquisition.

Q. Please explain why the amount of $8,025 per acquired customer is appropriate and reasonable.

A. First, the Pennsylvania General Assembly passed, and the Governor signed into law, Act 12 of 2016, which amended Chapter 13 of the Code by adding a new Section 1329. This statute firmly established in the Commonwealth of Pennsylvania a legal process for valuing municipal and authority-owned water and wastewater systems that are acquired by investor-owned water and wastewater utility companies. The General Assembly and Governor's action in creating this statutory tool affirmed that it is in the public interest that the lesser of the negotiated purchase price or the fair market value of the selling utility shall constitute rate making rate base. As such, $8,025 per acquired customer is appropriate in this case.

Second, the Commission has historically, and it continues to, promote and encourage the consolidation and regionalization of water and wastewater systems. With regard to Act 12 of 2016, the Commission has stated:

> Section 1329 mitigates the risk that a utility will not be able to fully recover its investment when water and wastewater assets are acquired from a municipality or authority. Section 1329 enables a public utility or entity to utilize fair market valuation when acquiring water and wastewater systems located in the Commonwealth that are owned by a municipal corporation or authority. A fair market valuation is not tied to the original cost of construction minus the accumulated depreciation. Rather, a fair market valuation allows consideration of cost, market, and income approaches in valuing the system. Section 1329(a)(3). In sum, Section 1329 allows enhanced rate base adjustments based upon the lesser of fair market value of the acquired assets or the negotiated price.[1]

Third, PAWC has been and continues to be a leader in helping the Commission and Pennsylvania's Department of Environmental Protection ("DEP") meet significant challenges posed by small troubled water and wastewater systems.

Moreover, as noted in my direct testimony, the fair market value per customer of $8,025 is less than or comparable to the fair market value per customer approved by the Commission in prior Section 1329 acquisitions.

Q. How do you respond to Mr. Eastman's testimony regarding the cost of the system under PAWC ownership compared to Borough ownership?

A. Mr. Eastman states that PAWC's pre-tax cost of capital is higher than the Borough's cost of capital, which Mr. Eastman indicates is comprised only of tax-exempt debt financing (OCA St. 2, p. 8, lines 3-5). It is correct that the pre-tax cost of capital for an investor-owned utility is different from the cost of tax-exempt municipal bonds. PAWC's cost of capital properly includes the cost of debt and a fair rate of return for its investors. The suggestion that the Commission should disapprove the acquisition because of the fundamental ratemaking concept of cost-based rates is unreasonable and is unsupported by Mr. Eastman's testimony.

---

[1] *Implementation of Section 1329 of the Public Utility Code Tentative Implementation Order*, Docket No. M-2016-2543193 (Order entered July 21, 2016) at p. 3.

Q. Do you agree with Mr. Eastman's testimony regarding the necessary increase under PAWC ownership?

A. No. First, it should be noted that Royersford's existing rates are $30 per month for the average residential customer, which is significantly less than many other utilities in Pennsylvania.

Second, I disagree with Mr. Eastman's testimony that there is a "revenue deficiency of 241%" requiring revenues "to increase by more than 241%."[2] The percentage increase should be calculated as the amount of the *increase* in dollars divided by current Royersford revenues rather than the entire revenue requirement divided by revenues at present rates. This results in an overstatement of the percentage increase in Mr. Eastman's testimony.

ASSET PURCHASE AGREEMENT

Q. In his direct testimony, OSBA St. No. 1 page 2, Mr. Kalcic recommends that the Commission reject the portion of § 7.03(a) of the APA by which PAWC agreed not to increase base rates until after the second anniversary of the closing date. Please respond.

A. The Commission should not adopt this recommendation. The APA was negotiated at arm's length and this provision was important to PAWC and Royersford (the "Parties" to the APA). The APA is conditioned on the Commission approving the proposed transaction on terms and conditions satisfactory to the Parties. APA §§ 7.05(a), 11.03, 12.03. Adopting the OSBA's recommendation could jeopardize the Transaction. The Commission should not jeopardize the Transaction unless the condition it imposes serves a purpose.

[2] OCA St. No. 2, page 11, lines 2 and 7-8.

The OSBA's recommendation, however, is unnecessary. Section 7.03(a) of the APA states: "The Base Rate[3] shall not be increased until after the second anniversary of the Closing Date." As discussed in my direct testimony, PAWC St. No. 3 p. 16, Royersford is not included in PAWC's base rate case that is currently pending before the Commission. The timing of PAWC's next base rate case is uncertain and it is unknown whether rates resulting from PAWC's next base rate case will become effective within two years of closing on the Transaction.[4]

Second, in negotiating the APA, the Parties were careful to respect the Commission's statutory authority to set just and reasonable rates. Nothing in the APA purports to restrict the Commission's authority to set rates that it considers to be "just and reasonable" in the context of a base rate proceeding or otherwise. The APA offers no tariff language for the Commission to approve. Consequently, the OSBA's recommendation is unnecessary and should not be adopted.

SEPARATE COST OF SERVICE STUDY AND RECOMMENDATION ON RATE DESIGN

Q. In his direct testimony, OSBA St. No. 1 page 2, OSBA witness Kalcic recommends that the Commission "direct PAWC to propose to begin the process of consolidating Royersford's rates with the Company's system-wide average rates for wastewater service in its first rate proceeding following approval of the Proposed Transaction." Please respond.

[3] The Base Rate is defined as Royersford's rates in effect on the Closing Date, plus any Commission permitted or required surcharges or pass-through costs.

[4] Even if rates resulting from PAWC's next base rate case were to become effective within two years of closing of the transaction, PAWC would still have the ability to propose in the next base rate case that it be permitted to begin to charge new Royersford rates immediately upon expiration of the two-year period even though such expiration would occur between base rate filings. The period, if any, between the effective date of all other new rates resulting from the next base rate case and the new Royersford rates would likely be very short.

A. I believe the OSBA's recommendation is unnecessary. The Commission has statutory authority to set "just and reasonable" rates in a future rate case, regardless of the rate proposal submitted by the Company. If the Commission decides to begin the process of consolidating Royersford's rates with the Company's system-wide average rates for wastewater services in the first PAWC rate base proceeding following closing, it can do so, whether or not PAWC makes such a proposal in its rate filing. The Commission should not pre-judge PAWC's next base rate case by telling PAWC what must be in its proposal.

With that being said, PAWC's goal is to move all customers toward system-wide average rates over time. In this way, all customers will experience the collective benefits of regionalization and consolidation of systems.

Q. Do you agree with Mr. Cline's and Mr. Eastman's recommendation that PAWC provide a separate cost of service study for the Royersford wastewater system in PAWC's first base rate case which includes Royersford's assets?

A. No. I recognize that the Commission has ordered the completion of cost of service studies in some previous cases, including some previous Section 1329 acquisition cases. Nevertheless, I disagree that the Commission should order the completion of a cost of service study in all acquisitions, even all Section 1329 acquisitions. Such studies are burdensome and expensive, and the costs are passed on to ratepayers as rate case expense. In addition, such studies are inconsistent with the Commission's policy favoring single tariff pricing.

There will likely be an increased number of acquisitions of municipal water and wastewater systems in the coming years as a result of Section 1329 and the use of fair market value for ratemaking purposes. If a separate cost of service study is required for

every acquisition, the impact on rate case expense could be considerable. Moreover, there is rate case expense associated with designing and litigating separate rate zones for each acquired system.

Q. Does this conclude your testimony?

A. Yes. However, I reserve the right to supplement my testimony as additional issues and facts arise during the course of the proceeding. Thank you.

VERIFICATION

I, Rod P. Nevirauskas hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unsworn falsification to authorities.

Rod P. Nevirauskas, Senior Director of Rates and Regulations

Dated: 1/29/2021

PAWC STATEMENT NO. 4-R

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company-Wastewater Division under Section 1329 of the Pennsylvania Public Utility Code, 66 Pa. C.S. § 1329, for the Acquisition of Royersford Borough's Wastewater System Assets	: : : : :	Docket Nos. A-2020-3019634, *et al.*

REBUTTAL TESTIMONY OF JEROME C. WEINERT, PE, ASA, CDP UTILITY VALUATION EXPERT SELECTED BY PENNSYLVANIA-AMERICAN WATER COMPANY

January 6, 2021

INTRODUCTION

Q. Please state your name, business address, and occupation.

A. My name is Jerome C. Weinert. My business address is 8555 West Forest Home Avenue, Suite 201, Greenfield, WI 53228. I am a Principal and Director of AUS Consultants.[1] This testimony was prepared by me.

Q. HAVE YOU PREPARED TESTIMONY IN THIS PROCEEDING BEFORE?

A. Yes, I prepared Direct Testimony (PAWC Statement No. 4) in support of my utility valuation expert ("UVE") appraisal of the Borough of Royersford's Wastewater Collection and Treatment System on behalf of PAWC. PAWC has submitted an Application to the Pennsylvania Public Utility Commission ("Commission") to acquire the Borough of Royersford's ("Royersford's") wastewater system.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. I will respond to the direct testimonies of David J. Garrett on behalf of the Office of Consumer Advocate ("OCA"), and D.C. Patel on behalf of the Commission's Bureau of Investigation and Enforcement ("I&E"), in this proceeding.

REBUTTAL OF OCA WITNESS MR. GARRETT

OVERVIEW

Q. MR. WEINERT, WHAT ARE THE AREAS OF YOUR CONCERNS REGARDING OCA WITNESS MR. GARRETT'S TESTIMONY?

[1] Unless otherwise indicated, all capitalized terms and acronyms used in this Rebuttal Testimony have the same meanings as set forth in my Direct Testimony.

A. My testimony will respond and rebut OCA witness Mr. Garrett's testimony and recommended adjustments to the AUS Consultants' UVE appraisal in the areas of the Market, Cost, and Income Approaches of the appraisal. Mr. Garrett made the following adjustments to my appraisal:

AUS Consultants	AUS Weight	OCA Garrett
Market Approach		
12,873,137	10%	9,947,355
Cost Approach		
13,376,109	50%	12,732,745
Income Approach		
14,486,081	40%	8,050,653
Conclusion		
13,769,801	100%	10,243,584

Market Approach

OCA witness Mr. Garrett recommends the following adjustments to AUS Consultants' Market Approach:

1. In the AUS Consultants' Market Approach, the sales of all Section 1329 transactions were reviewed (12 sales were considered). AUS Consultant's basis of comparison was the ratio of the purchase price ("PP") to the replacement cost new less depreciation ("RCNLD") of the acquired assets. In the AUS Consultants' comparative sales analysis, all 12 sales were utilized in determining the most likely PP to RCNLD ratio for the Market Approach based on the comparable sales. Mr. Garrett incorrectly states that AUS Consultants eliminated four sales as outlier data: those of the sales of the

Mahoning water and wastewater systems to SUEZ (each treated as a separate sale); the sale of the East Bradford wastewater system to Aqua; and the sale of the Kane wastewater system to PAWC. While it is true that AUS Consultants' outlier analysis did suggest those sales' PP/RCNLD ratios were outliers based on the three statistical outlier measures evaluated, those sales were in fact utilized in AUS Consultants' market approach determination. Mr. Garrett's contention that AUS Consultants excluded the above referenced sales is simply incorrect.

2. Mr. Garrett also adjusts the purchase prices in the AUS Consultants' market analysis, changing the purchase prices in the market sales analysis to the Commission's determination of the subject property's rate base. This is not consistent with the definition of fair market value for use in the market comparable analysis. As such, the use of rate base as opposed to the agreed-upon purchase price represents a hypothetical assumption. USPAP requires the appraiser to inform the users of his appraisal of this fact, which Mr. Garrett has not stated in his testimony.

3. Mr. Garrett also utilizes a simple average of the market sales transactions in his market analysis, instead of the more accurate weighted average of the market sales, in calculating the purchase price to RCNLD, which is the basis of estimating the Market Approach's value indication.

Cost Approach

Mr. Garrett's recommended changes in the AUS Consultants' Cost Approach entail reducing the service lives used in the quantification of depreciated replacement cost of several of Royersford's property categories as follows:

Depreciation Parameters

Account	Account Description	AUS Consultants	OCA Garrett
355.30	Power Generation - Pumping	R3.0 - 35 years	R3.0 - 30 years
360.20	Collection Sewers - Force Mains	R3.0 - 75 years	R3.0 -60 years
361.21	Collection Sewers - Gravity Mains	R2.5 - 80 years	R2.5 - 60 years
361.22	Collection Sewers - Gravity Mains - Relining	R2.5 - 60 years	R2.5 - 50 years
361.23	Collection Sewers - Manholes	R2.5 - 80 years	R2.5 - 60 years

In his testimony (OCA Statement 1 page 25 lines 12-14), Mr. Garrett states his depreciation parameter recommendation "is the same proposed by Gannett Fleming for these accounts from a recent wastewater case in which I also testified" (note omitted). The case in question was a proceeding before the Indiana Utility Regulation Commission. In doing so, Mr. Garrett disregarded the Pennsylvania-specific wastewater depreciation parameters evidence included in AUS Consultants' appraisal report, which included the last two of PAWC's depreciation studies filed in conjunction with PAWC's general rate cases in 2017 and 2020. The depreciation parameters (Iowa-type Survivor Curves and Service Lives) in PAWC's most recent general rate cases (R-2017-2595853 (decided) and R-2020-3019371 (in progress)) contain a service life analysis for each of PAWC's property accounts (PAWC Application - Appendix A-5.1 Exhibit 1 Section Depreciation & Obsolescence pages 7-10 of 15).

Income Approach

Mr. Garrett did not make adjustments to AUS Consultants' Income Approach *per se*. Rather, he used his own income approach model and associated inputs and

determined an income approach estimate of $8,050,653. He utilized that income approach estimate for both the AUS Consultants and Gannett Fleming appraisals. Mr. Garrett's adjustment to AUS Consultants' Income Approach is as follows:

Income Approach		
AUS Consultants	OCA Garrett	Difference
14,486,081	8,050,653	(6,435,428)

Mr. Garrett used Royersford's operating performance without adjustment for the rate base determination of the Commission as a result of the PAWC Application. Further, he did not forecast future operating results of the Royersford wastewater system under PAWC's operation, and he utilized an unrealistically low return on equity of 6.00% without regard to the cost of equity presented in the AUS Consultants' appraisal report, which relied on the Commission's cost of equity determination by the Bureau of Technical Utility Services ("TUS") in its September 30, 2019 Report on the Quarterly Earnings of Jurisdictional Utilities for the companies in the water industry. My rebuttal testimony will address Mr. Garrett's determination on these issues and will explain why they are not reasonable for the appraisal of Royersford's operation in future periods as a Commission-regulated wastewater utility.

Appraisal Approach Weighting

Finally, OCA witness Garrett also adjusted the weighting of the various approach results used by AUS Consultants in arriving at the OCA's appraisal conclusion as detailed in the following table:

AUS Consultants	AUS Weight	OCA Garrett	OCA Weight	Difference
Market Approach				
12,873,137	10%	9,947,355	33.3%	(2,925,782)
Cost Approach				
13,376,109	50%	12,732,745	33.3%	(643,364)
Income Approach				
14,486,081	40%	8,050,653	33.3%	(6,435,428)
Conclusion				
13,769,801	100%	10,243,584	99.9%	(3,526,217)

Mr. Garrett states that AUS Consultants has not "provided convincing reasons for his unequal weighting in this case" (OCA Statement 1 page 8 lines 8-9). I will testify that AUS Consultants explained the logic behind our appraisal approach weightings in our testimony (PAWC Statement No. 4).

QUALIFICATIONS AND COMPLIANCE WITH USPAP

Q. MR. WEINERT, PLEASE COMMENT ON MR. GARRETT'S QUALIFICATIONS TO COMPLETE A FAIR MARKET VALUATION PURSUANT TO SECTION 1329.

A. Mr. Garrett is not registered with the Commission as a UVE, nor did he consult with a UVE in preparing his testimony in this proceeding. Mr. Garrett has not conducted any appraisals of utility systems, nor did he consult with any appraisers in preparing his testimony. **PAWC Exhibit JCW-2** (answers to PAWC Interrogatories Set I, Nos. 2-5). In contrast, as discussed in my Direct Testimony, pp. 1 and **PAWC Exhibit JCW-1**, I

have extensive experience as an appraiser, I am registered with the Commission as a UVE and I have extensive experience completing fair market valuations in Pennsylvania.

Q. PLEASE DISCUSS THE METHODS THAT MR. GARRETT USED TO PREPARE HIS TESTIMONY.

A. Mr. Garrett admits that he did not perform a fair market value appraisal of Royersford's wastewater system. He admits that he did not view Royersford's wastewater system in preparing his testimony, nor did he rely on USPAP in his analysis of the UVEs' appraisals. **PAWC Exhibit JCW-2** (answers to PAWC Interrogatories Set I, Nos. 6, 7(c), and 10). In contrast, as noted in my Direct Testimony, AUS Consultants viewed the Royersford wastewater system as part of preparing a fair market valuation in compliance with USPAP. I note that Section 1329 requires appraisals to be conducted in compliance with USPAP.

Q. DOES USPAP GIVE AN APPRAISER DISCRETION IN PERFORMING AN APPRAISAL?

A. Yes. USPAP discusses an appraiser's flexibility and responsibilities in the Scope of Work Rules and Advisory Opinions. In developing the three approaches to valuation, the appraiser needs to determine what inputs and factors to include in the "appraisals scope of work" necessary to produce a creditable result. In the Cost Approach, this would include costing and depreciation methods. In the Income Approach, this would include income forecasts, discount rates and similar inputs. In the Market Approach, this would include what comparable sales to include and how to analyze those sales.

Q. DID AUS CONSULTANTS EXERCISE ITS DISCRETION IN PERFORMING ITS APPRAISAL OF THE ROYERSFORD SYSTEM?

A. Yes, consistent with USPAP and my professional obligations.

Q. DOES MR. GARRETT ALLEGE THAT AUS CONSULTANTS ABUSED ITS DISCRETION IN COMPLETING ITS FAIR MARKET VALUATION OF THE ROYERSFORD SYSTEM?

A. No. **PAWC Exhibit JCW-2** (answer to PAWC Interrogatory Set I, No. 12).

Q. DOES MR. GARRETT ALLEGE THAT AUS CONSULTANTS MADE AN ERROR OF FACT IN COMPLETING ITS FAIR MARKET VALUATION OF THE ROYERSFORD SYSTEM?

A. No. **PAWC Exhibit JCW-2** (answer to PAWC Interrogatory Set I, No. 14).

Q. DO YOU BELIEVE IT IS APPROPRIATE FOR SOMEONE WHO IS NOT A REGISTERED UVE TO RECOMMEND MODIFICATIONS IN A UVE'S APPRAISAL THAT ARE NOT BASED ON USPAP, WHERE THE APPRAISAL HAS BEEN COMPLETED IN COMPLIANCE WITH USPAP?

A. No, absolutely not. What is the point of forcing a municipality (or a municipal authority) and a public utility to incur the cost of hiring experts to complete a report in compliance with USPAP – a cost that will be passed on to ratepayers – if a non-expert can recommend changes in the appraisal based on factors that have nothing to do with

USPAP? In my opinion, Mr. Garrett, as a hired advocate for OCA (rather than an independent and impartial UVE), is improperly cherry-picking adjustments to AUS Consultants' appraisal to meet his client's desired result of a lower fair market value rate base than is directed under Section 1329. If he is qualified in the proceeding as an expert, his opinion should be afforded little to no weight. Much of his direct testimony and its extensive attachments amount to nothing more than stock materials on traditional ratemaking principles that lack any substantive applicability to conducting a fair market value appraisal under USPAP.

MARKET APPROACH

Q. MR. WEINERT, WOULD YOU PLEASE COMMENT ON THE REVISIONS THAT MR. GARRETT RECOMMENDS FOR AUS CONSULTANTS' MARKET APPROACH?

A. Mr. Garrett makes several adjustments in the market information used in AUS Consultants' Market Approach. First, Mr. Garrett substitutes the Commission's determination of rate base for the negotiated purchase price of the transactions, as agreed-to between the buyer and seller. Second, Mr. Garrett incorrectly states that AUS Consultants eliminated four sales as outlier data: the sales of the Mahoning water and wastewater systems to SUEZ (each treated as a separate sale); the sale of the East Bradford wastewater system to Aqua; and the sale of the Kane wastewater system to PAWC. While it is true that AUS Consultants' outlier analysis did suggest those sales' PP/RCNLD ratios were outliers based on the three statistical outlier measures evaluated, those sales were in fact utilized in AUS Consultants' market approach determination.

Mr. Garrett's contention that AUS Consultants excluded the above-referenced sales is simply incorrect. Finally, Mr. Garrett utilized a simple average of the purchase price or fair market value to the property's replacement cost new less depreciation as a market comparability ratio, as opposed to the superior weighted average of that same market comparability ratio.

Q. MR. WEINERT, DOES THE ANALYSIS AND RESULTING CONCLUSIONS OF THE OCA'S "MARKET APPROACH" CONFORM TO THE APPRAISAL INDUSTRY'S DEFINITION OF A MARKET COMPARABLE ANALYSIS?

A. No. Mr. Garrett's use of the Commission's determination of rate base for rate making purposes as the purchase price for the market transactions in the sales comparison analysis is not an analysis of market transactions. In the Market Approach, the appraiser looks at market sales agreed-to between willing buyers and sellers, each knowledgeable, with equity to both parties, and neither party under duress. That definition is reflective of the purchase price agreed-to between buyer and seller and is stated in their asset purchase agreement ("APA"), which was the basis of AUS Consultants' purchase price in our comparable analysis. The OCA's introduction of the rate base determination by the Commission introduces third and fourth parties into the market sales definition (i.e., regulators, statutory advocates and potentially, other intervenors), which are not envisioned in the appraisal definition of market value under the willing buyer-seller definition, each acting without the element of duress. Use of the Commission-determined rate base as the market purchase price represents a hypothetical assumption as defined by

USPAP – a fact which must be identified as such in the witness' report, which in this case is Mr. Garrett's written testimony.

Q. DOES THE FACT THAT THE RATE BASES SET BY THE COMMISSION IN SOME OF THE PRIOR SECTION 1329 PROCEEDINGS WERE THE RESULT OF SETTLEMENTS TO WHICH THE BUYER AND SELLER AGREED AFFECT YOUR OPINION ON WHETHER IT IS APPROPRIATE TO UTILIZE THE RATE BASES SET BY THE COMMISSION?

A. No, as I have stated, the market value is the purchase price agreed-to between buyer and seller and is stated in APA. A protested Commission application proceeding is an element of duress that distorts the true market value. Without protests from entities such as OCA and without the need to obtain timely regulatory approval from the Commission, the buyer and seller would not have agreed to a reduced Section 1329 ratemaking rate base. The reduced rate base reflects a desire to avoid the time and expense of litigation in a particular case, as opposed to the true market value.

Q. MR. WEINERT, CAN YOU PLEASE DEMONSTRATE THAT THE MARKET COMPARABLE SALES ANALYSIS IN YOUR APPRAISAL INCLUDES ALL 12 OF THE SECTION 1329 ACQUISITIONS REVIEWED BY THIS COMMISSION?

A. Yes, at the date the appraisal was finalized (June 2, 2020), there were twelve market sales which AUS Consultants considered in our analysis of comparable sales. In the market analysis, as developed by AUS Consultants, the ratio of the PP to the assets' RCNLD was

the market comparable ratio utilized to address comparability. The PP to RCNLD ratio was reviewed for each acquisition as follows:

Pennsylvania American Water Company
Royersford Borough
Wastewater Collection and Treatment System
Investor-Owned Utility

Development of Market Approach

(1)	(2)	(2.2)	(3)	(4)	(5)	(6)	(7)	(8)
Water / Wastewater System Sale	Purchase Price (PP)	Frequency Weight	Replacement Cost New less Depreciation (RCNLD)	Sales Comparison PP/RCNLD	PP Weighted PP/RCNLD	Variance to Wtd Mean	Variance squared	Frequency Wtd Variance Squared
Input	Input		Input	(2)/(3)	(2)*(4)	(4)-0.9314	(6)^2	(2.2)*(7)
New Garden Wastewater System	29,500,000	6.0%	30,615,410	0.9636	28,426,200	0.0322	0.0010	0.0001
McKeesport Wastewater System	159,000,000	32.1%	160,301,491	0.9919	157,712,100	0.0605	0.0037	0.0012
Limerick Wastewater System	75,100,000	15.2%	86,086,756	0.8724	65,517,240	(0.0590)	0.0035	0.0005
Mahoning Water System	4,734,800	1.0%	8,899,336	0.532	2,518,914	(0.3994)	0.1595	0.0015
Mahoning Wastewater System	4,765,200	1.0%	7,991,234	0.5963	2,841,489	(0.3351)	0.1123	0.0011
East Bradford Wastewater Collection System	5,000,000	1.0%	9,236,581	0.5413	2,706,500	(0.3901)	0.1522	0.0015
Sadsbury Wastewater Collection System	9,250,000	1.9%	8,517,587	1.086	10,045,500	0.1546	0.0239	0.0004
Exeter Wastewater Collection System	96,000,000	19.4%	99,589,819	0.964	92,544,000	0.0326	0.0011	0.0002
Steelton Water System	22,500,000	4.5%	23,921,473	0.9406	21,163,500	0.0092	0.0001	0.0000
Cheltenham Wastewater Collection System	50,250,000	10.2%	49,940,486	1.0062	50,561,550	0.0748	0.0056	0.0006
East Norriton Wastewater	21,000,000	4.2%	27,461,356	0.7647	16,058,700	(0.1667)	0.0278	0.0012
Kane Wastewater	17,560,000	3.5%	29,015,055	0.6052	10,627,312	(0.3262)	0.1064	0.0038
	494,660,000	100.0%	541,576,584		460,723,004		0.5970	0.0121

	Simple	Weighted	
Mean	0.8220	0.9314	Sum of Col 5 / Sum of Col 2
Standard Deviation	0.1944	0.1100	Sum of Col 8^0.5
Median	0.9065	0.9639	Middle PP/RCNL0 ratio by PP
Mode	Not Applicable	0.9919	Most frequent PP/RCNLD Ratio by frequency weight
Sales Comparison PP / RCNLD ratio conclusion		0.9624	Average of Wtd Mean, Wtd Median, & Wtd Mode
Royersford's Replacement Cost New less Depreciation		13,376,109	Cost Approach Conclusion
Market Approach Conclusion		12,873,167	RCNLD * Sales comparison PP/RCNLD Ratio

As the above table demonstrates all twelve acquisitions were included in the analysis.

Q. MR. WEINERT, YOU STATED EARLIER THAT THE OCA USED A SIMPLE AVERAGE OF THE PURCHASE PRICE TO RCNLD RATIO WHILE YOU UTILIZED A WEIGHTED AVERAGE OF THAT RATIO. HOW DOES THAT IMPACT THE MARKET APPROACH CONCLUSIONS?

A. Both AUS Consultants and the OCA used the ratio of the individual market sales purchase price (AUS Consultants) or the Commission's approved rate base (OCA) to the property's RCNLD as a comparability measure. In the AUS Consultants' Market

Approach, we utilized the purchase price weighted ratio to resolve the individual purchase price indicators to a single or point estimate of the ratio; while the OCA utilized a simple average of the ratio to establish its central point estimate of the ratio. The purpose of the analysis is to determine the central tendency of the data in the analysis. There are three statistics used in developing central tendencies. AUS Consultants considered all three in our sales comparison analysis: the mean and its standard deviation; the median; and the mode of the acquisitions analyzed. The AUS Consultants' approach of using purchase price weighted statistics is less susceptible to widely variable PP to RCNLD ratios, which the data in this case exhibits, while the OCA's simple average places equal weight on each transaction. In the previous table, I calculated the three central tendency measures using an unweighted (OCA method) and weighted (AUS Consultants method) measure. The following table compares these results:

Central Tendancy Statistic	Unweighted	Weighted
Mean	0.8220	0.9314
Standard Deviation	0.1944	0.1100
Median	0.9065	0.9639
Mode	Not Applicable	0.9919
Central Tendancy	0.8220	0.9624

As this table demonstrates, the AUS Consultants' process of using a weighted central tendency measure produces more consistent estimates of the purchase price to RCNLD ratios with less variance to the estimate. The OCA's approach results in a simple mean of 0.8220 with a standard deviation of 0.1944, whereas the AUS Consultants' approach results in a weighted mean with outliers removed of 0.9314 and a variance of 0.1100 The median, which is the central tendency measure which is least susceptible to outlier data, is more consistent between the OCA approach and the AUS

Consultants approach (the OCA approach results in a median of 0.9065 whereas the AUS Consultants' approach results in a median of 0.9639). Using the weighted central tendency measures is preferable as the use of the weighting produces a purchase price to RNCLD with a lower variance of the individual sales to the point estimate of the market sale ratio, indicating a more accurate estimate of the purchase price to RCNLD.

A more accurate estimate of the purchase price to RCNLD ratio will lead to a superior estimate of the indicated purchase price of the property which is the subject of this appraisal. Therefore, in estimating the Market Approach indicator to value, AUS Consultants' utilization of the weighted statistics of the purchase price to RCNLD is the proper ratio to apply to Royersford's RCNLD in order to arrive at the Market Approach value.

Q. MR. WEINERT, CAN YOU SUMMARIZE YOUR TESTIMONY REGARDING THE MARKET APPROACH?

A. Yes. In the Market Approach, the appraiser looks at market sales agreed-to between willing buyers and sellers, each knowledgeable, with equity to both parties, and neither party under duress. That definition is reflective of the purchase price agreed-to between buyer and seller and is stated in their APA, which was the basis of AUS Consultants' purchase price in our comparable analysis. The OCA's introduction of the rate base determination by the Commission introduces third and fourth parties into the market sales definition (i.e., regulators, statutory advocates and potentially, other intervenors), which are not envisioned in the appraisal definition of market value under the willing buyer-seller definition, each acting without the element of duress. As such, the proper sales

comparison measure is based on the purchase price and not the Commission-determined rate base as suggested by OCA witness Mr. Garrett. As described above, the proper measure of the central tendency or point estimate of the purchase price to RCNLD ratio is the purchase price weighted ratio, which has the least deviation of the point estimate and the individual sale ratios. The point estimate of the purchase price ratio is applied to the Cost Approaches' RCNLD conclusion, which, as will be demonstrated next in this testimony, should not be adjusted as the OCA recommended. Therefore, the OCA's use of its revised RCNLD in developing its Market Approach adjustment is invalid. As a result, the AUS Consultants' Market Approach indicator of $12,873,137 remains valid.

COST APPROACH

Q. MR. WEINERT, WOULD YOU PLEASE CONTINUE WITH YOUR TESTIMONY REGARDING THE OCA'S ADJUSTMENTS TO AUS CONSULTANTS' COST APPROACH?

A. As described earlier in this testimony, Mr. Garrett of the OCA isolates the acquired assets associated with several plant categories and modifies the depreciation lives used in quantifying the replacement cost less depreciation. The accounts in question are as follows:

Depreciation Parameters

Account	Account Description	AUS Consultants	OCA Garrett
355.30	Power Generation - Pumping	R3.0 - 35 years	R3.0 - 30 years
360.20	Collection Sewers - Force Mains	R3.0 - 75 years	R3.0 -60 years
361.21	Collection Sewers - Gravity Mains	R2.5 - 80 years	R2.5 - 60 years
361.22	Collection Sewers - Gravity Mains - Relining	R2.5 - 60 years	R2.5 - 50 years
361.23	Collection Sewers - Manholes	R2.5 - 80 years	R2.5 - 60 years

He also adjusts the maximum depreciation allowance from 85% used in the AUS Consultants' appraisal to 90%, which he neglected to mention in his testimony.

Mr. Garrett's revisions to the above-referenced service lives and the revision to the maximum depreciation allowance reduces the AUS Consultants' Cost Approach as detailed in the following table:

Cost Approach		
AUS Consultants	OCA Garrett	Difference
13,376,109	12,732,745	(643,364)

Q. MR. WEINERT, DID OCA WITNESS GARRETT PROVIDE ANY SUPPORT FOR HIS SERVICE LIFE ADJUSTMENTS RECOMMENDATION?

A. Not really. He simply provided a reference to a depreciation case in which he testified in Indiana for the Indiana Office of Utility Consumer Counselor ("Indiana OUCC") before the Indiana Utility Regulation Commission (IURC Cause No. 45039) in 2018. Mr. Garrett stated in his testimony (OCA Statement 1 page 25 lines 12-14): "The 60-year service life (collection mains and manholes) is the same proposed by Gannett Fleming for these accounts from another recent wastewater case in which I [Mr. Garrett] also testified." In doing so, Mr. Garrett completely ignored the depreciation studies AUS

Consultants provided in our appraisal report, which were depreciation studies also prepared by Gannett Fleming for Pennsylvania-American Water for its wastewater properties in Pennsylvania for PAWC's 2017 and 2020 general rate cases. These studies support the service lives used in my appraisal. My review of the depreciation study presented by Gannett Fleming in the above referenced IURC case for the wastewater collection mains indicates the property accounting for the wastewater collection mains was insufficiently reliable to estimate depreciation parameters (Iowa Curves and associated service lives), using generally recognized statistical life analysis technique of actuarial retirement rate analysis.

Q. MR. WEINERT, DO YOU AGREE WITH THE OCA'S ADJUSTMENTS TO THE SERVICE LIVES WHICH AUS CONSULTANTS USED FOR THE MAINS AND ASSOCIATED MANHOLES?

A. No. From my analysis of wastewater property's service lives and survival characteristics, the service life with a R2.5 Iowa-type survival pattern with a 80-year service life is the correct depreciation parameter to quantify appraisal depreciation for wastewater gravity mains and manholes.

Q. IS THERE EVIDENCE TO SUPPORT AUS CONSULTANTS' CONTENTION THAT THE PROPER SERVICE LIFE TO BE USED IN THE DEPRECIATION OF ROYERSFORD'S GRAVITY COLLECTION MAINS AND MANHOLES IS IN EXCESS OF OCA'S 60-YEAR SERVICE LIFE?

A. Yes. Both Aqua Pennsylvania, Inc. and PAWC have prepared depreciation studies of their wastewater property in conjunction with their most recent rate cases. In Aqua's case, the depreciation report is dated August 10, 2018 and the depreciation analysis included plant survival information covering the period 1943 through 2017 and plant retirements over the period 2010 through 2017. In PAWC's general rate cases, there are two depreciation reports. The first is dated April 21, 2017 (PA PUC Docket No. R-2017-2595853) wherein the depreciation analysis included plant survival information covering the period 1915 through 2016 and plant retirement information covering the period 2001 through 2016. The second depreciation report is dated April 22, 2020 (PA PUC Docket No. R-2020-3019371) and the depreciation analysis included plant survival information covering the period 1915 through 2019 and plant retirement information covering the period 2001 through 2019. These depreciation studies were prepared by John Spanos of Gannett Fleming who was the depreciation witness in all three respective rate cases. The depreciation data was used in a retirement rate analysis, an actuarial type analysis which analyzes the rate of retirement of property from a group of similar items of property. The retirement rate life analysis technique is widely recognized in the public utility industry for the determination of property service lives and survival characteristics. In that analysis technique, the property's survival is studied as a function of its age with the property's survival and retirement rates being used to construct the property's survivor curve (observed life table ("OLT")), the area under which is representative of the property's service life.

In the depreciation study performed by Gannett Fleming witness Spanos, the following depreciation lives were determined:

Property Description	Aqua PA GF Depreciation Study PA PUC R-2018-3003561	PAWC GF Depreciation Study PA PUC R-2017-2595853	AUS Review of GF Life Tables	PAWC GF Depreciation Study PA PUC R-2020-3019371	AUS Review of GF Life Tables	AUS Consultants - Royersford Appraisal
Power Generation - Pumping		R2.5 - 35 years		S0.5 - 35 years	S1.0 - 35 years	R3.0 - 35 years
Collection Mains - Force		S2.0 - 70 years	R5.0 - 85 years	R3.0 - 75 years	R3.0 - 85 years	R3.0 - 75 years
Collection Mains - Gravity		R2.5 - 70 years	R5.0 - 85 years	R2.5 - 80 years	R3.0 - 85 years	R2.5 - 80 years
Collection Maind - Manholes		S1.5 - 50 years	R5.0 - 85 years	S2.5 - 50 years		R2.5 - 80 years
Collection Mains - Relining					R4.0 - 95 years	R2.5 - 60 years
Collection Mains Force, Gravity, & Manholes	R2.5 - 75 years		R3.0 - 75 years			

GF - Gannett Fleming John J. Spanos

Q. MR. WEINERT, WOULD YOU PLEASE SUMMARIZE YOUR TESTIMONY REGARDING THE OCA'S ADJUSTMENTS TO AUS CONSULTANTS' COST APPROACH?

A. Yes, OCA witness Garrett adjusted the depreciation lives of five of the Royersford plant categories in the depreciation determination of AUS Consultants' Cost Approach, as follows:

Depreciation Parameters

Account	Account Description	AUS Consultants	OCA Garrett
355.30	Power Generation - Pumping	R3.0 - 35 years	R3.0 - 30 years
360.20	Collection Sewers - Force Mains	R3.0 - 75 years	R3.0 -60 years
361.21	Collection Sewers - Gravity Mains	R2.5 - 80 years	R2.5 - 60 years
361.22	Collection Sewers - Gravity Mains - Relining	R2.5 - 60 years	R2.5 - 50 years
361.23	Collection Sewers - Manholes	R2.5 - 80 years	R2.5 - 60 years

These revisions lowered AUS Consultant's Cost Approach by $643,364 as follows:

Cost Approach		
AUS Consultants	OCA Garrett	Difference
13,376,109	12,732,745	(643,364)

Mr. Garrett relied upon evidence from a depreciation case in another state to support his depreciation lives, ignoring the depreciation life evidence provided in my appraisal report, Appendix A-5.1, in the depreciation and obsolescence section of that report. That support detailed depreciation parameters (Iowa Curves and service lives) presented by PAWC for the depreciation experience of its Pennsylvania based wastewater properties in its last two general rate cases (Docket Nos. R-2017-2595853 and R-2020-3019371). The depreciation analysis was prepared by Gannett Fleming. The depreciation experience was the basis of the service life recommendations in AUS Consultants' depreciation determination in our Cost Approach. That analysis is as follows:

Property Description	Aqua PA GF Depreciation Study PA PUC R-2018-3003561	PAWC GF Depreciation Study PA PUC R-2017-2595853	AUS Review of GF Life Tables	PAWC GF Depreciation Study PA PUC R-2020-3019371	AUS Review of GF Life Tables	AUS Consultants - Royersford Appraisal	OCA Garrett
Power Generation - Pumping		R2.5 - 35 years		S0.5 - 35 years	S1.0 - 35 years	R3.0 - 35 years	R3.0 - 30 years
Collection Mains - Force		S2.0 - 70 years	R5.0 - 85 years	R3.0 - 75 years	R3.0 - 85 years	R3.0 - 75 years	R3.0 - 60 years
Collection Mains - Gravity		R2.5 - 70 years	R5.0 - 85 years	R2.5 - 80 years	R3.0 - 85 years	R2.5 - 80 years	R2.5 - 60 years
Collection Maind - Manholes		S1.5 - 50 years	R5.0 - 85 years	S2.5 - 50 years		R2.5 - 80 years	R2.5 - 60 years
Collection Mains - Relining					R4.0 - 95 years	R2.5 - 60 years	R2.5 - 50 years
Collection Mains Force, Gravity, & Manholes	R2.5 - 75 years		R3.0 - 7S years				

GF - Gannett Fleming John J. Spanos

As demonstrated, the service lives selected by AUS Consultants clearly reflect Pennsylvania wastewater property experience, while Mr. Garrett's recommendation does not. As such, there is no reason for the OCA adjustment to the AUS Consultants' cost approach. The AUS Consultants' Cost Approach of $13,376,109 remains valid.

INCOME APPROACH

Q. MR. WEINERT, WOULD YOU PLEASE CONTINUE WITH YOUR TESTIMONY REGARDING THE OCA'S ADJUSTMENTS TO AUS CONSULTANTS' INCOME APPROACH?

A. As I explained earlier, Mr. Garrett did not make adjustments to AUS Consultants' Income Approach *per se*. Rather, he used his own income approach model and associated inputs, and determined an income approach estimate of $8,050,653. He then utilized that income approach estimate for both the AUS Consultants and Gannett Fleming appraisals. Mr. Garrett's adjustment to AUS Consultants' income approach is as follows:

Income Approach		
AUS Consultants	OCA Garrett	Difference
14,486,081	8,050,653	(6,435,428)

Mr. Garrett used Royersford's operating performance without adjustment for the rate base determination of the Commission as a result of PAWC's Application. Further, he did not forecast future operating results of the Royersford wastewater system under PAWC's operation. He also utilized an unrealistically low return on equity of 6.00% without regard to the cost of equity presented in the AUS Consultants' appraisal report, which relied on the Commission's cost of equity determination by TUS in its September 30, 2019 Report on the Quarterly Earnings of Jurisdictional Utilities for the companies in the water industry. My rebuttal testimony will address Mr. Garrett's determination on these issues and why they are not reasonable for the appraisal of Royersford's operation in future periods as a Commission rate-regulated wastewater utility.

Q. MR. WEINERT, WOULD YOU PLEASE CONTINUE WITH YOUR TESTIMONY REGARDING THE OCA'S METHODS AND RECOMMENDATIONS USED IN THE OCA'S INCOME ANALYSIS?

A. Yes, I will begin with the required rate of return on rate base and the discount rate used in discounting future cash flows from operation into present value resulting in the income approach conclusion. They are both developed using the weighted average cost of capital ("WACC"), which both AUS Consultants and OCA witness Mr. Garrett utilized. However, the inputs and use are quite different. The rate of return on rate base is used to estimate the revenue requirement based on the Commission's determination of rate base, which is one of the purposes of PAWC's Application to the Commission in this case. The discount rate reflects the acquirer's, PAWC in this case, cost of capital associated with financing the acquisition. In the AUS Consultants appraisal, these two rates are as follows:

Water and Wastewater Cost of Capital
First Quarter 2020 (1-1-2020)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	26%	Market	3.23%	Market	28.89%	71.11%	0.60%
Equity	74%	Market	9.95%	Market	0.0%	100.0%	7.36%
Total Capital r	**100.0%**						**7.96%**
Growth (g)							1.82%
Rate without Growth: [(1+r)/(1+g)]-1							**6.03%**

Water and Wastewater Cost of Capital
First Quarter 2020 (1-1-2020)

As an Investor-Owned Utility

Weighted Cost of Capital (Rate of Return on Rate Base)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	Required Return on Rate Base (2)*(3)
Debt	45%	Embedded	3.23%	Embedded	Not Applicable	Not Applicable	1.45%
Equity	55%	Embedded	9.95%	Market	Not Applicable	Not Applicable	5.47%
Total Capital r	**100.0%**						**6.92%**
Growth (g)						Not Applicable	**0.00%**
Rate without Growth: [(1+r)/(1+g)]-1							**6.92%**

As can be seen from the above tables, the return on rate base uses an embedded capital structure similar to the usual practice in rate of return rate making in the Commonwealth

of Pennsylvania, whereas the discount rate uses a market capital structure as it is the capital markets wherein the financing for the acquisition is theoretically going to be obtained. Also, the discount rate is developed to be applied to debt free net cash flows from operations, in this case, the cash flows resulting from the operation of the Royersford wastewater system in future periods (which in the AUS Consultants' appraisal consisted of 19 periods with the 20th period being treated as a point estimate of all future periods to perpetuity).

Mr. Garrett's discount rate was developed as follows:

OCA Witness Garrett's Wastewater Cost of Capital
Third Quarter 2020 (10-1-2020)

As an Investor-Owned Utility

Weighted Cost of Capital (Discount Rate)

(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	49%	Embedded	4.80%	Embedded	28.89%	71.11%	1.67%
Equity	51%	Embedded	6.00%	Market	0.0%	100.0%	3.06%
Total Capital r	**100.0%**						**4.73%**
Growth (g)							**3.90%**
Rate without Growth: [(1+r)/(1+g)]-1							**0.80%**

In comparison, Mr. Garrett used similar procedures as AUS Consultants (i.e., he used the WACC methodology with similar inputs, with the exception of the cost of equity estimate). Mr. Garrett did not recognize that the discount rate should be based on market capital structure for discounting future cash flows, and that those future cash flows have to be estimated based on forecasted future revenue requirement, recognizing the

Commission-authorized return on rate base and the Commission's determination of rate base in the specific case.

Q. MR. WEINERT, WOULD YOU CONTINUE WITH YOUR TESTIMONY REGARDING THE OCA'S ESTIMATE OF THE COST OF EQUITY?

A. Yes, OCA witness Mr. Garrett estimated the cost of equity using the same techniques as AUS Consultants and TUS – those of Discounted Cash Flow ("DCF"), Market Indicated Common Equity Cost of Capital, and Capital Asset Pricing Model ("CAPM"). TUS estimates on a quarterly basis the cost of equity for the various segments of the utility industry and the September 30, 2019 report was the industry report issued closest to the Royersford appraisal date and available at the time the appraisal was prepared. The following table compares the cost of equity findings of AUS Consultants, TUS, and the OCA:

Cost of Equity			
	TUS[1]	AUS	OCA
Current DCF	9.10%	8.65%	6.00%
52-week Average DCF	9.22%		
Average DCF	9.16%		
Market Indicated Common Equity Cost of Capital Range midpoint +/- one standard deviation-	7.92% - 9.16% - 10.40%		
CAPM Check	8.55%	9.67%	6.00%
Conclusion	9.95%	9.95%	6.00%

Notes:
1. TUS Report on Quarterly Earning of Jurisdiction Utilities For Year Ended September 30, 2019 page 27

The TUS and AUS Consultants' estimates of return on equity are also consistent with past equity returns by Pennsylvania water companies as demonstrated by the following chart extracted from the above referenced TUS report:

Equity Returns of Pensylvania Water and Wastewater Utilities

Year	Quarter	PAWC		AQUA		SUEZ		York	
		Actual	Adjusted	Actual	Adjusted	Actual	Adjusted	Actual	Adjusted
2018	1	9.55%	8.97%	10.94%	8.41%				
	2	10.27%	9.65%						
	3	11.03%	9.48%						
	4	10.08%	9.03%					10.70%	10.30%
2019	1	9.82%	8.87%					11.60%	11.60%
	2	9.72%	8.90%	9.84%	9.04%	10.78%	10.36%	11.80%	11.80%
	3	9.13%	8.41%	10.69%	8.84%	11.55%	11.75%	12.00%	12.00%

Notes:
1. TUS Report on Quarterly Earning of Jurisdiction Utilities
For Year Ended September 30, 2019 page 10

It is clear that OCA witness Mr. Garrett's estimate of the required equity return of 6.00% is entirely too low. The low estimate of required equity return influences not only the discount rate but more importantly the allowable return on rate base in developing the future returns from operations and thus resultant cash flows to be discounted in the income approach to valuation.

Q. WOULD YOU PLEASE CONTINUE WITH YOUR TESTIMONY REGARDING THE OCA'S ESTIMATE OF PRESENT AND FUTURE CASH FLOWS?

A. Yes, Mr. Garrett utilizes Gannett Fleming's initial revenues and resultant cash flows as his estimate of Royersford's operating results and capitalizes those results into his income approach estimate. However, those operating results were based on Royersford's historical results from operations, which do not reflect (a) the acquisition and the Commission's establishment of rate base, (b) the transition from a municipal operation to an investor owned utility operation with an authorized return on rate base and federal, state and local taxes and/or fees, all of which need to be estimated and forecasted in order to determine future returns from operations and the resultant cash flows to discount into

appraisal date values for the ultimate determination of the income approach estimate. I'll cover each of these issues next.

Rate Base

If the Commission approves the Transaction, the Royersford rate base determination will be either the average of the UVEs' appraisals or the purchase price agreed-to between PAWC and Royersford. The following table compares and contrasts the Royersford asset base and the likely rate base resulting for PAWC in this case:

Borough of Royersford Financial Sewer Fund	2015	2016	2017	2018
Non-Current Asets				
Capital Assets				
Plant	6,543,653	6,791,842	6,802,794	6,802,794
Vehicles	29,268	29,268	29,268	29,268
Equipment	-	-	-	51,054
Gross Plant	6,572,921	6,821,110	6,832,062	6,883,116
Capital Additions		248,189	10,952	51,054
Addition Growth Rate		3.78%	0.16%	0.75%
Accumulated Depreciation	(1,843,178)	(2,004,300)	(2,170,768)	(2,337,417)
Annual Depreciation		(161,122)	(166,468)	(166,649)
Depreciation Rate		-2.36%	-2.44%	-2.42%
Net Plant	4,729,743	4,816,810	4,661,294	4,545,699

Rate Base	AUS Consultants	Gannett Flemming	Average UVEs Appraisals	Section 1329 Rate Base
UVE Appraisals	13,769,801	13,218,657	13,494,229	
Purchase Price			13,000,000	
Conclusion				13,000,000
OCA Adjusted UVE Appraisals	10,243,584	9,671,075	9,957,330	
Purchase Price			13,000,000	
Conclusion				9,957,330

As this table demonstrates, the Commission-determined Royersford rate base is going to increase under the provisions of Section 1329 – even if the Commission uses the OCA-adjusted UVE appraisals. When that rate base is used with a Commission-determined return on rate base, the Royersford returns will increase well over those estimated by OCA witness Mr. Garrett. By not factoring these known adjustments into

his income analysis, Mr. Garrett severely underestimates the results from operations and, as such, his income approach results.

In AUS Consultants' income approach, the transition of Royersford's operations to a rate regulated entity recognizes the rate base established from this proceeding, and the transition of customer service rates, recognizing the changing rate base, as well as the incorporation of federal, state and local taxes or fees, in the development of its income approach analysis, as the following income approach analysis demonstrates:

Pennsylvania American Water Company
Royersford Borough
Wastewater Collection and Treatment System
Potential Purchaser: Investor-Owned Utility
As of December 10, 2019
Discounted Cash Flow Analysis

Discount Rate:			7.96%										
Capitalization Rate:			6.03%										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Period	Age	Revenues	O&M Expenses	Tax Depreciation	Cash Flow from Operations	Taxable Income before State & Federal Taxes	State and Federal Taxes @ 28.89%	Capital Expenditures	Change in Working Capital	Net Cash Flows	Period Present Worth Factor (PW)	PW of Cashflow	Accumulated PW of Cashflows
					(3)-(4)	(6)-(5)	(7) *28.89%			(3)-(4)-(8)-(9)-(10)		(11)*(12)	Sum (13)
1	0.5	1,122,000	717,929	746,706	404,071	(342,635)	(98,987)	214,549	14,688	273,821	0.962	263,416	263,416
2	1.5	1,144,440	733,088	756,382	411,352	(345,030)	(99,679)	217,769	1,212	292,050	0.891	260,217	523,633
3	2.5	1,464,883	748,693	766,393	716,190	(50,203)	(14,504)	221,035	17,303	492,356	0.826	406,686	930,319
4	3.5	1,494,181	764,752	776,748	729,429	(47,319)	(13,670)	224,350	1,583	517,166	0.765	395,632	1,325,951
5	4.5	1,524,065	781,281	787,455	742,784	(44,671)	(12,905)	227,716	1,613	526,360	0.708	372,663	1,698,614
6	5.5	1,950,803	798,283	798,522	1,152,520	353,998	102,270	231,132	23,045	796,073	0.656	522,224	2,220,838
7	6.5	1,989,819	815,771	738,384	1,174,048	435,664	125,863	85,124	2,106	960,955	0.608	584,261	2,805,099
8	7.5	2,029,615	832,472	738,542	1,197,143	458,601	132,490	86,239	2,149	976,265	0.563	549,637	3,354,736
9	8.5	2,557,315	849,690	738,797	1,707,625	968,828	279,894	87,371	28,496	1,311,864	0.522	684,793	4,039,529
10	9.5	2,608,461	867,442	739,153	1,741,019	1,001,866	289,439	88,520	2,762	1,360,298	0.483	657,024	4,696,553
11	10.5	2,660,630	885,733	739,608	1,774,897	1,035,289	299,095	89,683	2,817	1,383,302	0.447	618,336	5,314,889
12	11.5	2,873,480	904,577	740,167	1,968,903	1,228,736	354,982	90,863	11,494	1,511,564	0.414	625,787	5,940,676
13	12.5	2,930,950	923,990	723,808	2,006,960	1,283,152	370,703	92,060	3,103	1,541,094	0.384	591,780	6,532,456
14	13.5	2,989,569	943,988	724,492	2,045,581	1,321,089	381,663	93,275	3,165	1,567,478	0.356	558,022	7,090,478
15	14.5	3,228,735	964,579	725,283	2,264,156	1,538,873	444,581	94,507	12,916	1,712,152	0.329	563,298	7,653,776
16	15.5	3,293,310	985,775	423,915	2,307,535	1,883,620	544,178	237,184	3,487	1,522,686	0.305	464,419	8,118,195
17	16.5	3,359,176	1,008,820	429,553	2,350,356	1,920,803	554,920	240,743	3,556	1,551,137	0.283	438,972	8,557,167
18	17.5	3,627,910	1,032,494	435,326	2,595,416	2,160,090	624,050	244,353	14,512	1,712,501	0.262	448,675	9,005,842
19	18.5	3,700,468	1,056,810	441,238	2,643,658	2,202,420	636,279	248,019	3,918	1,755,442	0.242	424,817	9,430,659
20 and beyond	19.5	3,774,477	1,081,780	447,291	2,692,697	2,245,406	648,698	251,738	3,997	1,788,264	2.827	5,055,422	14,486,081
								3,366,230					

In summary, the OCA's income approach does not reflect the operation of the Royersford wastewater system and is not a reliable estimate of the Royersford assets' value based on the income approach.

WEIGHTING OF THE VARIOUS APPROACHES

Q. MR. WEINERT, WOULD YOU PLEASE CONTINUE WITH YOUR TESTIMONY REGARDING THE OCA'S ADJUSTMENT TO THE WEIGHTING OF THE THREE APPROACHES IN YOUR APPRAISAL?

A. Yes. OCA witness Mr. Garrett also adjusted the weighting of the various approach results used by AUS Consultants in arriving at the OCA's appraisal conclusion as detailed in the following table:

AUS Consultants	AUS Weight	OCA Garrett	OCA Weight	Difference
Market Approach				
12,873,137	10%	9,947,355	33.3%	(2,925,782)
Cost Approach				
13,376,109	50%	12,732,745	33.3%	(643,364)
Income Approach				
14,486,081	40%	8,050,653	33.3%	(6,435,428)
Conclusion				
13,769,801	100%	10,243,584	99.9%	(3,526,217)

Mr. Garrett states that AUS Consultants has not "provided convincing reasons for his unequal weighting in this case" (OCA Statement 1 page 8 lines 8-9). AUS Consultants explained the logic behind our appraisal approach weightings in our testimony, PAWC Statement No. 4 page 4, line 8, through page 5, line 4, as follows:

> **Q. How did you develop the weighting applied to each approach in your appraisal and why are the individual weights you chose appropriate for this proposed transaction?**

A. For the cost approach I chose a weighting of 50%. It is my opinion that this weighting is appropriate for the cost approach because the major purpose of this appraisal is to be an input to the Commission's establishment of cost for future ratemaking and the cost approach conclusion is directly reflective of the property cost.

For the market approach I chose a weighting of 10%. It is my opinion that this weighting is appropriate for the market approach because while the market approach provides some information as to the value of the property, establishing comparability between the individual sales to the subject property is difficult and uncertain therefore requiring less weight of the market approach and the 10% weight accomplishes that objective.

For the income approach I chose a weighting of 40%. It is my opinion that this weighting is appropriate for the income approach because the income approach reflects the value of the property's return to the property's owner. And the 40% weight accomplishes that objective.

SUMMARY OF REBUTTAL OF OCA WITNESS MR. GARRETT

Q. MR. WEINERT, CAN YOU PLEASE SUMMARIZE YOUR TESTIMONY REBUTTING MR. GARRETT'S TESIMONY?

A. Yes. Each of the OCA witness's concerns and proposed adjustments to the AUS Consultants' appraisal was reviewed. In each case, their concerns were addressed and found not to warrant any adjustment to our appraisal.

REBUTTAL OF I&E WITNESS MR. PATEL

Q. MR. WEINERT, I&E WITNESS MR. PATEL CONTENDS YOU HAVE USED DIFFERENT PROCEDURES IN DIFFERENT PROCEEDINGS TO ARRIVE AT YOUR MARKET APPROACH CONCLUSIONS. COULD YOU ADDRESS THAT CONCERN?

A. Yes. I have performed nine appraisals associated with Section 1329 Acquisitions and the following table details how I handled the Market Approach Conclusion:

Review of Weinert's Market Determination

New Garden	Agreed on Purchase Price
McKeesport	Purchase Price to Average of OCLD, RCNLD, & Value Line Financial Ratios
East Bradford	Purchase Price to Average of OCLD, RCNLD, & Value Line Financial Ratios
Sadsbury	Purchase Price to Average of OCLD, RCNLD, & Value Line Financial Ratios
Exeter	Purchase Price to RCNLD
Steelto	Purchase Price to RCNLD
Cheltenham	Purchase Price to RCNLD
East Noritton	Purchase Price to RCNLD
Kane	Purchase Price to RCNLD
Royersford	Purchase Price to RCNLD

Since the Exeter appraisal, I have relied upon the ratio of the purchase price to the RCNLD, i.e., the Market Approach Conclusion. In the earlier appraisals, there were insufficient market transactions to rely on a single indicator; however, with nine sales, the purchase price to RCNLD indicator has become mature enough to place reliance upon it.

CONCLUSION

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. It does. However, by submitting this rebuttal testimony, I understand that I may have the opportunity to submit additional testimony responsive to challenges to my appraisal.

VERIFICATION

I, Jerome C. Weinert, P.E., hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unsworn falsification to authorities.

Jerome C. Weinert, P.E. Principal and Director
AUS Consultants, Inc.

Dated: 1/29/2021

PAWC EXHIBIT JCW-2

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

2. Is Mr. Garrett registered with the Commission as a Utility Valuation Expert ("UVE") under 66 Pa. C.S. § 1329? If not, why not?

Response:

No. Mr. Garrett is not registered with the Commission as a UVE.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

3. Did Mr. Garrett consult with a Commission-registered UVE in preparing his Direct Testimony in this proceeding? If yes, please identify.

Response:

No.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

4. Did Mr. Garrett consult with an appraiser in preparing his Direct Testimony in this proceeding? If yes, please identify.

Response:

No.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

5. Provide a listing of all appraisals (including identification of whether the appraisals involved the cost, market or income approaches) prepared by Mr. Garrett. Please provide copies of the appraisals.

Response:

Mr. Garrett has not conducted any such appraisals.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

6. State the edition (year) of the Uniform Standards of Professional Appraisal Practice ("USPAP") upon which Mr. Garrett relied in his analysis of the UVE Appraisals prepared by Gannett Fleming Valuation and Rate Consultants, LLC and AUS Consultants.

Response:

Mr. Garrett is not holding himself out to be an appraiser. He did not rely on the USPAP in his analysis of the UVE appraisals.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

7. Reference page 35 of Mr. Garrett's Direct Testimony, lines 4-5 ("In the context of a utility rate proceeding there is a significant length of time from when an application is filed, and when testimony is due.") and 8-9 ("It is arguably ill-advised to use a single stock price in a model that is ultimately used to set rates for several years.").

a. Please specifically identify what Mr. Garrett means by "utility rate proceeding."

b. Does Mr. Garrett admit that a Section 1329 Application is not a utility rate proceeding?

c. Please explain why a fair market valuation should be completed using methodologies that apply to a utility rate proceeding? Please cite any supporting references in USPAP.

d. Does the OCA intend to file a revised version of Mr. Garrett's testimony, containing corrections to make his testimony appropriate for a fair market valuation?

Response:

a. Mr. Garrett is referring generally to base rate case proceedings filed by regulated utility companies seeking to adjust their rates and charges before their regulatory commissions. In this context, Mr. Garrett was not specifically referring to Section 1329 proceedings.

b. Mr. Garrett would not disagree with a Section 1329 Application being characterized as a "utility rate proceeding," however, as stated in the response to 7(a) above, Mr. Garrett was not specifically referring to Section 1329 proceedings on p. 35, lines 4-5 of his testimony

c. Mr. Garrett did not conduct a fair market valuation in this case. In the cited portion of Mr. Garrett's testimony, he is referring why it is preferable to use average stock prices over a period of time, rather than a single day.

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

d. No. Mr. Garrett did not conduct a fair market valuation. Mr. Garrett's testimony proposes reasonable adjustments to the UVEs' fair market valuations. Mr. Garrett is not aware of any errors that require correction at this time.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

10. Does Mr. Garrett acknowledge that, under USPAP, an appraiser is afforded discretion in the preparation of an appraisal?

Response:

Mr. Garrett is not familiar with the USPAP's standard regarding that issue.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

12. Is Mr. Garrett alleging that Mr. Weinert abused his discretion in preparing his UVE Appraisal under USPAP? If yes, how?

Response:

No.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF PENNSYLVANIA-AMERICAN WATER COMPANY DIRECTED TO THE OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

14. Is Mr. Garrett alleging that Mr. Weinert relied upon an error of fact in preparing his UVE Appraisal? If yes, please identify the specific facts.

Response:

No.

Sponsoring Witness: David J. Garrett

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough	:	Docket No. A-2020-3019634

VERIFICATION

I, David J. Garrett, hereby state that I am the witness responsible for responding to Pennsylvania-American Water Company's Interrogatories directed to the Office of Consumer Advocate, Set I, and that the facts above set forth are true and correct to the best of my knowledge, information and belief in the interrogatory responses. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: January 4, 2021
*301720

Signature: _____
David J. Garrett

Consultant Address: Resolve Utility Consulting, PLLC
101 Park Avenue
Suite 1125
Oklahoma City, OK 73102

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of the Royersford Borough assets, properties and rights related to its wastewater collection and treatment system to Pennsylvania-American Water Company, and (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in the Royersford Borough and a portion of Upper Providence Township, Montgomery County, Pennsylvania	:	Docket No. A-2020-3019634, *et al.*

SURREBUTTAL TESTIMONY OF
ASHLEY E. EVERETTE ON BEHALF OF
PENNSYLVANIA-AMERICAN WATER COMPANY

Date: January 13, 2021

PAWC Statement No. 5-SR

PENNSYLVANIA-AMERICAN WATER COMPANY
SURREBUTTAL TESTIMONY OF ASHLEY E. EVERETTE

Q. What is your name and address?

A. My name is Ashley E. Everette and my business address is 852 Wesley Drive, Mechanicsburg, Pennsylvania 17055.

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

A. I am employed by American Water Works Service Company (the "Service Company") as Director of Rates and Regulatory. I work in the Mechanicsburg office of Pennsylvania-American Water Company ("PAWC" or "the Company").

Q. Please state your educational background and professional experience.

A. I hold a Bachelor's degree in Economics and a Master's degree in Business Administration, both from the University of Illinois. I have been employed by the Service Company as the Director of Rates and Regulatory since September 2019. From September 2012 to September 2019, I was employed by the Pennsylvania Office of Consumer Advocate ("OCA") as a Regulatory Analyst.

Q. What are your duties as Director of Rates and Regulatory?

A. My duties include, principally, preparing and presenting rate applications for PAWC. In addition, I am responsible for certain aspects of the financial, budgeting and regulatory functions of the Company.

Q. Have you previously submitted testimony before the Pennsylvania Public Utility Commission (the "Commission" or "PUC")?

A. Yes. I testified in the Company's 2020 water and wastewater base rate filing. Additionally, while employed by the OCA, I testified on financial, accounting and policy issues in approximately 35 proceedings including base rate cases, fair market value acquisition cases, and other types of proceedings.

Q. Have you previously provided testimony in this proceeding?

A. No, I have not.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to respond to testimony provided at the telephonic Public Input Hearing ("PIH") held on January 7, 2021 in this matter. I attended the PIH and listened to the testimony and comments given. Additionally, I will comment on letters sent to the Commission by customers regarding this acquisition.[1]

Q. Please summarize how the PIH was advertised and the participation in the PIH.

A. PAWC and Royersford Borough ("Royersford") publicized the PIH through press releases, on the Company's and Royersford's website, and through posts on social media by PAWC. Additionally, the PUC publicized the PIH through a press release and its social media

[1] The Company received the customer comment letters on January 12, 2021 from the Commission's Secretary's Bureau.

pages. The PIH was also publicized by at least two local newspapers[2] and on the OCA's social media pages.

Participation in the PIH was very limited. A total of three members of the public attended the PIH, including Pennsylvania State Senator Katie Muth who testified, one customer who provided off-the record comments, and one individual who did not speak.

The PIH was also attended by the Administrative Law Judge, the court reporter, and attorneys representing PAWC, I&E, OCA, and OSBA. Additionally, several other Company representatives from Rates, Engineering, Operations, Business Development and Communications attended to listen to the testimony and be available to answer any questions.

Q. As part of her testimony at the PIH, Senator Muth expressed concern that customers would not have an opportunity to participate in proceedings to increase rates under PAWC ownership. How do you respond?

A. The Commission's regulations provide a number of opportunities for customers who wish to comment on proposed rate increases or participate in the ratemaking process. For example, customers can file informal comments or a formal complaint and can participate in the rate case proceeding if they choose to do so. Additionally, the Commission typically holds several public input hearings as part of the rate case process, and these hearings provide opportunities for customers to give sworn testimony and participate in the process.

[2] Brandt, Evan. "Deadline to Register for Public Hearing on Sale of Royersford Sewer System Is Wednesday." *The Mercury*, 5 Jan. 2021, www.pottsmerc.com.
Brandt, Evan. "Deadline to Register for Public Hearing on Sale of Royersford Sewer System Is Wednesday." *The Times Herald*, 5 Jan. 2021, p. 3.

For example, in the Company's pending base rate case, eight public input hearings were held.

Q. As part of her testimony at the PIH, Senator Muth also expressed concern about future rate increases under PAWC ownership. Additionally, customer letters sent to the Commission expressed concerns over increasing rates. How do you respond?

A. Upon closing of the transaction, PAWC will adopt Royersford's wastewater rates then in effect, subject to PAWC's prevailing wastewater tariff on file with the Commission with respect to miscellaneous fees and charges for wastewater service, and has committed through the Asset Purchase Agreement not to increase base rates until after the second anniversary of the transaction closing date. It is unknown at this time when PAWC will request a rate increase that would affect Royersford's wastewater customers. Additionally, the acquisition will have no impact on existing customers' rates at this time.

Any increase to customer rates will occur only after extensive review and approval by the Commission and with input from all interested stakeholders, including customers. In these future base rate proceedings, the Commission can take measures to ensure that no ratepayer experiences rate shock and that rates are implemented consistent with principles of gradualism.

In setting rates, the Commission will also consider the cost of service for the various rate zones. Over time, PAWC intends to move the Royersford system toward system-average/single-tariff rates in recognition that all customers are part of one, unified PAWC

wastewater system.[3] Such movement, however, will be in a gradual manner and may take several base rate filings to accomplish.

I would also note that PAWC has customer assistance programs to assist customers who may be experiencing financial challenges. PAWC's H2O Help to Others Program includes a 20% discount on total wastewater charges as well as grants of up to $500 per year to be used toward household's wastewater bills.

Q. Does this conclude your surrebuttal testimony at this time?

A. Yes, it does. However, I reserve the right to submit additional testimony in response to additional facts and issues that may arise in this proceeding.

[3] Over time, the Company expects to consolidate wastewater rates into two separate categories: sanitary sewer systems and combined sewer systems.

VERIFICATION

I, Ashley E. Everette, hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unswom falsification to authorities.

1/13/2021
Date

Ashley E. Everette
Ashley E. Everette, Director of Rates and Regulatory
American Water Company

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of the Royersford Borough assets, properties and rights related to its wastewater collection and treatment system to Pennsylvania-American Water Company, and (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in the Royersford Borough and a portion of Upper Providence Township, Montgomery County, Pennsylvania	:	Docket No. A-2020-3019634, et al

BOROUGH OF ROYERSFORD
STATEMENT NO. 1-R

REBUTTAL TESTIMONY OF

MICHAEL A. LEONARD

BOROUGH MANAGER

BOROUGH OF ROYERSFORD

January 6, 2021

Q. Please state your name and business address.

A. My name is Michael A. Leonard. My business address is 300 Main Street, Royersford, PA 19468.

Q. Are you the same Michael A. Leonard who submitted direct testimony in this proceeding?

A. Yes, I submitted direct testimony (Borough of Royersford Statement No. 1) in support of Pennsylvania-American Water Company's ("PA American Water") Application filed with the Pennsylvania Public Utility Commission ("PUC" or the "Commission") on July 14, 2020 regarding the acquisition of the Borough of Royersford's (the "Borough") wastewater system.

Q. What is the purpose of your rebuttal testimony?

The purpose of my testimony is to respond to the direct testimony of Noah D. Eastman, which was submitted on behalf of the Pennsylvania Office of Consumer Advocate ("OCA"). Specifically, I will respond to Mr. Eastman's testimony regarding the significant public benefits the Proposed Transaction will provide, as well as his testimony regarding the quality of service currently being provided by the Borough and expected to be provided by PA American Water.

Q. What is your response to Mr. Eastman's testimony that the Proposed Transaction does not present affirmative public benefits for the Borough's customers?

A. I strongly disagree with Mr. Eastman and submit that he is incorrect. In fact, a close reading of his testimony reveals that he fails to rebut nearly all of the public benefits I detailed in my direct testimony. Other than pointing out that the Borough offers an option for online bill payment and has customer service hours that are more limited than

those that will be provided by PA American Water, Mr. Eastman fails to address any of the significant public benefits I outlined in my direct testimony. While it may be difficult to quantify precisely those benefits, they were very important to the Borough in deciding to enter into the Proposed Transaction. Those benefits illustrate that the Proposed Transaction presents substantial affirmative public benefits that will be realized by the Borough's customers.

The elected representatives of the Borough are in a much better position than Mr. Eastman to determine what is an affirmative benefit to the Borough and its citizens. based on all relevant considerations. To the best of the Borough's knowledge, neither Mr. Eastman or OCA's other witness, Mr. Garrett, have ever inspected or even visited the System.

Q. What is your response to Mr. Eastman's testimony that the Borough does not provide inadequate service?

A. While the service the Borough provides is adequate and, indeed, of high quality, as stated in response to OCA's discovery, the Borough's finances, as I pointed out in my direct testimony, need more stability. There is no assurance that we can keep up with the mounting capital needs of the System and ever-increasing and stricter environmental regulations. Mr. Eastman contends that the Borough has a lower cost of capital than does PA American Water, but he neglects to note that the Borough has a limited ability under Pennsylvania law to incur debt, and Borough officials would prefer to use that limited borrowing ability on other projects and purposes rather than on maintaining the quality of wastewater service.

Simply because the Borough provides service of that quality right now does not mean that it is not justified in seeking to enter into the Proposed Transaction. As addressed in my direct testimony, the Borough engaged in a highly deliberative process by which it made the determination that it and its customers will be better situated at the closing of the Proposed Transaction and over the long-term if the Borough enters into the Proposed Transaction than if it does not. Most notably, the Borough undertook an analysis of its financial condition and determined that the Proposed Transaction would improve that considerably. I do not believe that it is appropriate for Mr. Eastman to second-guess that analysis and the Borough's policy decision to exit the business of providing sanitary sewer service, and it would appear that he agrees as he makes no effort to do so.

Q. Does Mr. Eastman sufficiently address the fact that the Borough's customers would experience increased rates if the Borough stays the course without the Proposed Transaction?

A. No. As I stated in my direct testimony, the Borough projected that customer rates would increase significantly if its System remained with the Borough due to its aging infrastructure, which will require significant capital investment in the coming years. The Borough would also incur increasing environmental compliance costs and believes that PA American Water is better-situated because of its size, experience and expertise to deal with environmental issues in an effective and efficient way.

Q. Does this conclude your rebuttal testimony?

A. Yes, it does; however, I reserve the right to supplement my testimony as additional issues and facts arise during the course of this proceeding.

VERIFICATION

I, Michael A. Leonard hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unsworn falsification to authorities.

Michael A. Leonard, Borough Manager
Royersford Borough

Dated: January 6, 2021

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company under Section 1102(a) of the Pennsylvania Public Utility Code, 66 Pa C.S. § 1102(a), for approval of (1) the transfer, by sale, of substantially all of the Royersford Borough's assets, properties and rights related to its wastewater treatment, transportation and collection system facilities to Pennsylvania-American Water Company, and (2) the rights of Pennsylvania-American Water Company to begin to offer or furnish wastewater service to the public in Royersford Borough and a portion of the Township of Upper Providence, Montgomery County, Pennsylvania.	:	Docket No. A-2020-3019634 *et al.*

BOROUGH OF ROYERSFORD

STATEMENT NO. 2R

REBUTTAL TESTIMONY

OF

HAROLD WALKER, III

FAIR MARKET VALUE APPRAISAL

January 6, 2021

Prepared by:
GANNETT FLEMING
VALUATION AND RATE CONSULTANTS, LLC

Valley Forge, Pennsylvania

TABLE OF CONTENTS

INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Harold Walker III, and my business address is 1010 Adams Avenue, Audubon, Pennsylvania.

Q. ARE YOU THE SAME HAROLD WALKER III WHO PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

A. Yes.

SCOPE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. Gannett Fleming Valuation and Rate Consultants, LLC ("Gannett Fleming") was engaged by the Borough of Royersford ("Borough") to perform a fair market value appraisal of the Borough's wastewater system assets ("Wastewater System"). The purpose of my testimony is to respond to and comment on the direct testimony submitted by the Office of Consumer Advocate ("OCA") witness David J. Garrett.

EXHIBITS

Q. ARE YOU SPONSORING ANY EXHIBITS AS PART OF YOUR TESTIMONY?

A. Yes. Royersford Exhibit HW-1 consists of several discovery responses from OCA witness Garrett.

RESPONSE TO OCA WITNESS GARRETT

Q. WOULD YOU PLEASE SUMMARIZE MR. GARRETT'S ADJUSTMENTS OF THE GANNETT FLEMING FAIR MARKET VALUE APPRAISAL AND IDENTIFY THE TOPICS THAT YOU WILL ADDRESS IN YOUR REBUTTAL TESTIMONY?

A. Yes. In his direct testimony, Mr. Garrett proposed adjustments to the Gannett Fleming Cost Approach to valuation. Mr. Garrett proposed a new Income Approach to valuation. Mr. Garrett also proposed adjustments to the Gannett Fleming selected transaction method, which is included in the Market Approach to valuation. All of Mr. Garrett's proposed adjustments/changes are downward, or negative, adjustments to Gannett Fleming's appraisal report. [1] My rebuttal testimony addresses Mr. Garrett's changes and recommended adjustments to Gannett Fleming's appraisal report.

Q. DO MR. GARRETT'S RECOMMENDATIONS MEET A STANDARD OF VALUE OF FAIR MARKET VALUE?

A. No. For the reasons discussed later in my testimony, Mr. Garrett's recommendations do not meet a standard of value of fair market value and are in direct violation of Section 1329 of the Public Utility Code ("Code").

Q. DID MR. GARRETT PERFORM AN APPRAISAL OF ROYERSFORD BOROUGH'S WASTEWATER SYSTEM ASSETS?

A. No, for the reasons discussed in detail later in my testimony.

1 Appendix A-5.2 of PAWC's Application includes Gannett Fleming's appraisal report dated May 31, 2020.

Q. HAS MR. GARRETT EVER PERFORMED A FAIR MARKET VALUE APPRAISAL OF OTHER WASTEWATER SYSTEM ASSETS?

A. No. (See Exhibit HW-1, page 1 for Mr. Garrett's response to Royersford Borough's Interrogatories, Set I, question 10b.)

Q. HAS MR. GARRETT EVER VALUED UTILITY PROPERTY?

A. No. (See Exhibit HW-1, page 1 for Mr. Garrett's response to Royersford Borough's Interrogatories, Set I, question 10a)

Q. DID MR. GARRETT INSPECT OR REVIEW THE WASTEWATER SYSTEM?

A. No. (See Exhibit HW-1, page 2 for Mr. Garrett's response to Royersford Borough's Interrogatories, Set I, question 5.)

Q. DID YOU INSPECT OR REVIEW THE ROYERSFORD BOROUGH'S WASTEWATER SYSTEM?

A. Yes, I viewed or observed the Wastewater System's facilities on May 21, 2020. I also relied on the engineering assessment of the Wastewater System's facilities report, "Royersford Borough Sewerage Facilities Engineering Assessment and Original Cost"

("Engineering Assessment") and related files prepared by Pennoni Associates Inc., to confirm the condition of the Wastewater System's property and equipment.

Q. WHAT IS PENNONI ASSOCIATES INC.'S ASSESSMENT OF THE CONDITION OF THE ROYERSFORD BOROUGH'S WASTEWATER SYSTEM ASSETS?

A. Page 1 of the Engineering Assessment states, "[t]he overall assessment of the Wastewater Treatment Plant is **good**, the Pump Stations are in **good to very good** condition." (Emphasis added) Page 1 of the Engineering Assessment also states, "[w]ith the improvements made with the [Cured In Place Pipe ("CIPP")] lining projects, gravity sewers and force mains are in **good** condition." (Emphasis added)

Cost Approach

Q. ON PAGES 20 TO 27 OF MR. GARRETT'S TESTIMONY, HE EXPLAINS HIS ADJUSTMENTS TO THE COST APPROACH. WOULD YOU PLEASE SUMMARIZE MR. GARRETT'S ADJUSTMENTS TO THE GANNETT FLEMING COST APPROACH AND IDENTIFY THE TOPICS THAT YOU WILL ADDRESS IN YOUR REBUTTAL TESTIMONY?

A. Yes. Mr. Garrett's adjustments to the Gannett Fleming Cost Approach to valuation are limited to the use of shorter service lives for some plant accounts.

Q. DO MR. GARRETT'S RECOMMENDED ADJUSTMENTS TO THE COST APPROACH MEET A STANDARD OF VALUE OF FAIR MARKET VALUE?

A. No. As discussed in detail later in my testimony, Mr. Garrett's recommendations do not meet a standard of value of fair market value and are in direct violation of Section 1329 of the Public Utility Code.

Q. MR. GARRETT RECOMMENDS SHORTER SERVICE LIVES FOR SIX PLANT ACCOUNTS. WHY ARE ASSET SERVICE LIVES IMPORTANT?

A. The estimation of the service lives of the Wastewater System's assets are part of the valuation of depreciable plant assets under the Cost Approach. Shorter service lives result in lower values under the Cost Approach.

Q. MR. GARRETT RECOMMENDS AN ADJUSTMENT TO GANNETT FLEMING'S COST APPROACH. SPECIFICALLY, HE RECOMMENDS SHORTER SERVICE LIVES FOR SIX PLANT ACCOUNTS. DID MR. GARRETT CONDUCT A STATISTICAL ANALYSIS TO SUPPORT HIS RECOMMENDATION?

A. No. On pages 25 and 26, Mr. Garrett explains that three of his six recommended changes, those for the Structures and Improvements - Pumping (account 354.30), Structures and Improvements - Treatment (account 354.40), and Services (363.20) are based on AUS Consultant's appraisal for those three accounts.

His recommended changes for the other three accounts, Force Mains (account 360.21), Gravity Mains (account 361.21) and Manholes (account 361.23), are based on a 2016 deprecation study in the state of Indiana ("Indiana Study") for two accounts, Force Mains and Gravity Mains. Therefore, the Indiana Study does not support Mr. Garrett's recommended service life for Manholes (account 361.23).

Although I was not involved in the Indiana Study, my research indicates that the Indiana Study included information for Citizens Energy Group – Citizens Wastewater ("CWW"), Citizens Energy Group – Westfield Wastewater ("WWW") and numerous other larger Citizens Energy Group entities.[2] The data for CWW's Force Mains account included only seven years of accounting data, with no retirements and the data for WWW's Force Mains account included only three years of accounting data, with a total of $15,000 of retirements. Similarly, the data for CWW's Gravity Mains account included only seven years of accounting data, with a total of $30,000 of retirements and the data for WWW's Gravity Mains account included only four years of accounting data, with no retirements. Therefore, there are only minute statistical samples, from a foreign jurisdiction, from which Mr. Garrett bases his recommendation.[3] Further, Mr. Garrett provides no evidence to support that the CWW and WWW assets are comparable to Royersford's. Instead, there are reasons to doubt that they are comparable. For example, CWW's system is a combined sewer system, whereas Royersford's is not.

2 Cause No. 45039 before the Indiana Utility Regulation Commission.

3 "Many utilities keep **historical records of asset placements and retirements by vintage year**. When such data is available, depreciation experts can use **actuarial techniques to analyze the historical retirement patterns** in each account. The most common of these techniques is called the retirement rate method. Under this method, **historical retirement patterns can be displayed graphically** in the form of original survivor curves. Depreciation experts then **use visual and mathematical curve fitting techniques**, along with professional judgement, **to select empirically derived Iowa curves that best fit** the original survivor curve. The Iowa curve is ultimately used to calculate the average remaining life and depreciation rate for each account." (Emphasis added, OCA Statement 1, page 21.)

Q. PREVIOUSLY YOU TESTIFIED, "THE INDIANA STUDY DOES NOT SUPPORT MR. GARRETT'S RECOMMENDED SERVICE LIFE FOR MANHOLES (ACCOUNT 361.23)." WHAT IS THE SOURCE OF MR. GARRETT'S RECOMMENDED SERVICE LIFE FOR MANHOLES?

A. On page 26 of Mr. Garrett's direct testimony, he stated that his recommended service life for the Manholes account is based on his recommended service life of the Gravity Mains account. As explained previously, Mr. Garrett cited the Indiana Study as his source for his recommended survivor curve for the Gravity Mains account. However, the Indiana Study did not include any manhole accounts.

Q. MR. GARRETT PROPOSES 60-YEAR AVERAGE SERVICE LIVES FOR FORCE MAINS (ACCOUNT 360.21), GRAVITY MAINS (ACCOUNT 361.21) AND MANHOLES (ACCOUNT 361.23). ARE MR. GARRETT'S PROPOSED 60-YEAR AVERAGE SERVICE LIVES REASONABLE FOR THE WASTEWATER SYSTEM?

A. No. The Wastewater System is an older system as evidenced by the fact that 83% of the Force Mains (account 360.21) were installed in 1935, and the remaining 17% were installed in 1958. Similarly, 99% of the Gravity Mains (account 361.21) and 95% of the Manholes (account 361.23) were installed between 1935 and 1936. Therefore, only 1% of the Gravity Mains (account 361.21) and 5% of the Manholes (account 361.23) were installed post-1936.[4]

4 Exhibit 10 of Gannett Fleming's appraisal (Appendix A-5.2 of PAWC's Application).

The assets installed in 1935 and 1936 are currently between 84 to 85 years old and the assets installed in 1958 are 62 years old. Therefore, 100% of the Force Mains (account 360.21) still providing service are between 62 and 85 years old, and 99% of the Gravity Mains (account 361.21) and 95% of the Manholes (account 361.23) are between 84 and 85 years old. Additionally, the fact that over 13% of the Gravity Mains (account 361.21) were relined, between 2013 and 2015, increases the expected service lives of the Gravity Mains.[5] Clearly, Mr. Garrett's assumed 60-year average service life is not reasonable for such assets currently providing service.

I believe this information proves an average service life of at least 70 years is more appropriate for these accounts given the age of the underlying assets and the fact they are still providing service, which indicates they still have value.

Q. IS THERE ADDITIONAL EVIDENCE WHICH PROVES MR. GARRETT'S ASSUMED 60-YEAR AVERAGE SERVICE LIFE IS NOT SUITABLE FOR THE WASTEWATER SYSTEM'S ASSETS?

5 *See* Gannett Fleming's appraisal at page 5 (Appendix A-5.2 of PAWC's Application).

A. Yes. Table 1 shows a comparison between the survivor curve estimates recommended by Gannet Fleming's appraisal (Appendix A-5.2 of PAWC's Application) and Mr. Garrett, and the approved recommendations from other Gannett Fleming appraisals in other section 1329 proceedings. The comparison shown in Table 1 demonstrates Mr. Garrett's assumed 60-year average service life is not suitable for the Wastewater System's assets. This is particularly true when one considers the current age of the Wastewater System's assets previously discussed, the materials used in construction, the engineering assessment of the condition of the underlying assets, along with the average service lives shown in Table 3.[6]

Royersford Borough Wastewater System Assets
Comparison of Survivor Curve Estimates

	Force Mains (Account 360.21)	Gravity Mains (Account 361.21)
Recommendation for Royersford		
Gannett Fleming's Appraisal	70-R2.5	70-R2.5
Mr. Garrett (OCA)	60-R2.5	60-R2.5
Gannett Fleming's Appraisals in Other Section 1329 Proceedings - Proposed & Approved		
New Garden	60-R3 to 75-R3*	65-R3 to 75-R3*
Limerick	70-R2.5	65-R2.5
Mahoning	65-R2.5	65-R2.5
East Bradford	55-R3 to 65-R3*	65-R3
Exeter	70-R2.5	70-R2.5
Cheltenham	NA	75-R2.5
East Norriton	70-R2.5	70-R2.5
Kane	65-R2.5	65-R2.5

* - Grouped by size and material

Table 1 1

6 "With the improvements made with the CIPP lining projects, gravity sewers and force mains are in good condition." (Page 1 of the Engineering Assessment.)

Q. IS THERE ADDITIONAL INFORMATION WHICH INDICATES MR. GARRETT'S ASSUMED 60-YEAR AVERAGE SERVICE LIFE IS NOT SUITABLE FOR THE WASTEWATER SYSTEM'S ASSETS?

A. Yes. Mr. Garrett determined and recommended average service lives of 65 years for force mains, 95 years for gravity mains, and 65 years for manholes for wastewater assets in his most recent depreciation testimony concerning wastewater assets in the Blue Granite Water Company rate case before the South Carolina Public Service Commission in docket 2019-290-WS ("Blue Granite"). (See Exhibit HW-1, page 3 for Mr. Garrett's response to Royersford Borough's Interrogatories, Set I, question 11.) Although I was not involved in Blue Granite, my research indicates Mr. Garrett's recommended services lives for force mains, gravity mains, and manholes in Blue Granite are between 8% to 58% longer than he recommends for the Wastewater System for the same accounts.

Additionally, it should be noted that I&E does not recommend any changes to the service lives used in Gannett Fleming's appraisal.

Q. ON PAGES 25 AND 26 MR. GARRETT EXPLAINS THAT THREE OF HIS SIX RECOMMENDED CHANGES TO SERVICE LIVES ARE BASED ON AUS CONSULTANTS' APPRAISAL FOR THOSE THREE ACCOUNTS. WERE THE THREE ACCOUNTS THAT MR. GARRET RECOMMENDED USING AUS CONSULTANTS' APPRAISAL'S SERVICE LIVES ALSO INCLUDED IN THE INDIANA STUDY DISCUSSED PREVIOUSLY?

A. Yes. In the Indiana Study, Mr. Garrett recommended using longer service lives for each of the three accounts which he currently recommends using AUS Consultants' appraisal's

service lives. Table 2 shows a comparison between the service lives Mr. Garrett recommended in the Indiana Study and those he recommends for Royersford (based on AUS Consultants' appraisal's service lives). As shown in Table 2, Mr. Garrett recommended services lives that were between 18% to 22% longer in the Indiana Study for Structures and Improvements - Pumping (account 354.30), Structures and Improvements - Treatment (account 354.40), and Services (363.20) than he recommends for Royersford for the same accounts.

	Accounts	Mr. Garrett Indiana Study	OCA Mr. Garrett Royersford
354.30	Structures and Improvements - Pumping Plant	55-R2.5	45-R4
354.40	Structures and Improvements - Treatment Plant	65-R2.5	55-R4
363.23	Services	55-R2.5	45-R3

Table 22

Based upon the information shown in Table 2, it is apparent that Mr. Garrett recommends using the results from the Indiana Study only in the instance when those services lives are shorter than those used in the AUS Consultants' appraisal and Gannett Fleming's appraisal. That is, for each account he recommends using the shortest service lives found in the Indiana Study, the AUS Consultants' appraisal or Gannett Fleming's appraisal. For example, the shortest service lives for both force and gravity mains (accounts 360.21 and 361.21) are found in the Indiana Study and that is his recommendation for Royersford. Similarly, the shortest service lives for Structures and Improvements - Pumping (account 354.30), Structures and Improvements - Treatment

(account 354.40), and Services (account 363.20) are found in the AUS Consultants' appraisal and that is his recommendation for Royersford.

Clearly, such an approach described above is not appropriate and does not meet a standard of value of fair market value and is in direct violation of Section 1329 of the Code.

Q. YOU PREVIOUSLY STATED THE WASTEWATER SYSTEM IS AN OLDER SYSTEM WHEN DISCUSSING MAINS AND MANHOLES. ARE THE ASSETS COMPRISING THE STRUCTURES AND IMPROVEMENTS - PUMPING (ACCOUNT 354.30), STRUCTURES AND IMPROVEMENTS - TREATMENT (ACCOUNT 354.40), AND SERVICES (ACCOUNT 363.20) ACCOUNTS SIMILARLY AGED?

A. Yes. The Wastewater System is an older system as evidenced by the fact that 26% of the Structures and Improvements - Pumping (account 354.30) were installed in 1935, 32% in 1958 and the remaining were installed post-1987. Therefore, 26% of Structures and Improvements - Pumping (account 354.30) are 85 years old and 32% are 62 years old. Seventy-five percent of Structures and Improvements - Treatment (account 354.40) were installed in 1935, signifying 75% of these assets are 85 years old. The Services (account 363.20) account is comprised of 98% of assets installed between 1935 and 1936, meaning 98% of these assets are between 84 and 85 years old.

Q. IS THERE ADDITIONAL INFORMATION WHICH INDICATES MR. GARRETT'S RECOMMENDED SERVICE LIVES FOR STRUCTURES AND IMPROVEMENTS - PUMPING (ACCOUNT 354.30), STRUCTURES AND

IMPROVEMENTS - TREATMENT (ACCOUNT 354.40), AND SERVICES (ACCOUNT 363.20) ARE NOT APPROPRIATE?

A. Yes. Mr. Garrett determined and recommended average service lives of 55 years for Structures and Improvements - Pumping (account 354.30) and 53 years for Services (account 363.20) account in his Blue Granite testimony discussed previously. (See Exhibit HW-1, page 3 for Mr. Garrett's response to Royersford Borough's Interrogatories, Set I, question 11.) Mr. Garrett recommended services lives that were between 18% to 22% longer in Blue Granite than he recommends for Royersford for the same accounts. Given the current age of the Wastewater System's assets previously discussed, the materials used in construction, and the engineering assessment of the condition of the underlying assets, I believe Mr. Garrett's recommended changes to the Cost Approach should not be adopted.[7]

Additionally, the fact that AUS Consultants' appraisal and Gannett Fleming's appraisal may use different service lives for different accounts is not surprising since rarely do experts agree on every aspect of an appraisal. However, the fact that AUS Consultants' appraisal and Gannett Fleming's appraisal produced independent appraised values using the Cost Approach that are within 1% of each other proves their conclusions are reasonable and should not be adjusted.[8]

7 "The overall assessment of the Wastewater Treatment Plant is good, the Pump Stations are in good to very good condition." (Page 1 of the Engineering Assessment.)

8 See page 6 of OCA Statement 1, AUS Consultants' appraisal Cost Approach of $13,376,109 and Gannett Fleming's appraisal Cost Approach of $13,254,220.

Income Approach

Q. ON PAGES 28 TO 50 OF MR. GARRETT'S TESTIMONY, HE EXPLAINS HIS INCOME APPROACH. WOULD YOU PLEASE SUMMARIZE MR. GARRETT'S ADJUSTMENTS TO THE GANNETT FLEMING INCOME APPROACH AND IDENTIFY THE TOPICS THAT YOU WILL ADDRESS IN YOUR REBUTTAL TESTIMONY?

A. Yes. Mr. Garrett's adjustments to the Gannett Fleming income approach to valuation include using a different model, and the appropriate cash flow to value. He also disagrees with the discount rates used in the model and presents what he believes are more appropriate discount rates.

Q. DO MR. GARRETT'S RECOMMENDED ADJUSTMENTS TO THE INCOME APPROACH MEET A STANDARD OF VALUE OF FAIR MARKET VALUE?

A. No. For the reasons discussed later in my testimony, Mr. Garrett's recommendations do not meet a standard of value of fair market value and are in direct violation of Section 1329 of the Code.

Q. WHERE DID MR. GARRETT EXPLAIN HIS MODEL THAT HE RECOMMENDS BEING USED IN THE INCOME APPROACH TO VALUATION?

A. Mr. Garrett explained, on page 30 of his testimony, that he applied a capitalization of earning or cash flow method model. The capitalization of earning method converts a single base economic income number to a value by dividing it by a capitalization rate. As explained on page 28 of Gannett Fleming's appraisal, "[t]he capitalization of earnings is

best suited when the future earnings, or cash flow, can be predicted. The implicit assumption in the capitalization of earning method is that the cash flow is a perpetuity, and the capitalization rate is a constant." Mr. Garrett's recommended model is shown on OCA Exhibit DJG-15.

Conversely, the Income Approach to valuation used in Gannett Fleming's appraisal is based on the discounted cash flow method ("DCF method") which values the potential for profit in an investment and reflects future events. Gannett Fleming used the DCF method to be consistent with the required standard of value of fair market value.[9] Fair market value is defined as "the price, expressed in terms of cash equivalents, at which property would change hands between a **hypothetical** willing and able **buyer** and a **hypothetical** willing and able **seller**, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts."[10] The DCF method "is based on the principle of anticipation - i.e., value is created by the anticipation of future benefits. DCF analysis reflects investment criteria and requires the appraiser to make rational and supportable assumptions."[11]

The capitalization of earnings method used by Mr. Garrett uses the income or cash flow producing capabilities from a recent **single year, reflecting current ownership and operations**. As shown on OCA Exhibits DJG-15 and DJG-16, Mr. Garrett's

9 Pratt, Shannon P. "Defining Standards of Value." Valuation 34, no. 2, June 1989. http://www.appraisers.org/docs/default-source/college-of-fellows-articles/defining-standards-of-value.pdf .

10 Emphasis to the text has been added. The original text is from *The International Glossary of Business Valuation Standards.*

11 Appraisal Standards Board, "First Exposure Draft of proposed new Advisory Opinions and Advisory Opinion Revisions in conjunction with the 2016-17 edition of the Uniform Standards of Professional Appraisal Practice" pg. 6.

recommended model is comprised of a single cash flow, under current ownership and operations from a recent period. Although Mr. Garrett states, on page 30 via footnote 39, the single budgeted 2020 cash flow that he utilized is from the Gannett Fleming appraisal, he fails to disclose that the single cash flow was not used in the Income Approach to valuation used in Gannett Fleming's appraisal. Specially, the Income Approach to valuation used in Gannett Fleming's appraisal is based on projected cash flows beginning in 2021 and thereafter. Therefore, the Income Approach to valuation used in Gannett Fleming's appraisal did not use the single budgeted year 2020 cash flow utilized by Mr. Garrett.

Page 31 of Gannett Fleming's appraisal states, "[a]s noted previously, the Wastewater System's financial statements and their rates did not include taxes nor a fair rate of return. Accordingly, on Exhibits 13 through 16 we adjusted the Wastewater System's **post-2020** financial information for pro forma expenses and returns to be reflective of a MUNI or IOU ownership." (Emphasis added) I do not believe it is appropriate to use a single budgeted year 2020 cash flow recommended by Mr. Garrett in the Income Approach to valuation.

Q. YOU PREVIOUSLY STATED THE INCOME APPROACH TO VALUATION USED IN THE GANNETT FLEMING APPRAISAL IS BASED ON THE DISCOUNTED CASH FLOW METHOD OR "DCF METHOD." HAS THE COMMISSION EXPRESSED MISGIVINGS OR CONCERNS REGARDING THE USEFULNESS OF APPLYING GANNETT FLEMING'S INCOME APPROACH TO VALUATION BASED ON THE DISCOUNTED CASH FLOW METHOD OR

"DCF METHOD" IN A 1329 PROCEEDING IN WHICH GANNETT FLEMING HAS BEEN INVOLVED?

A. No. Gannett Fleming has applied the discounted cash flow method or DCF method as their income approach to valuation as part of its fair market value appraisal in nine Section 1329 fair market value proceedings that have been reviewed by the Commission. The Commission has not adjusted Gannett Fleming's discounted cash flow method recommendation in any prior proceeding. I should also note the Commission has never accepted the recommended use of the capitalization of earnings method used by Mr. Garrett in a Section 1329 fair market value proceeding.

Q. ON PAGE 29 OF MR. GARRETT'S TESTIMONY, HE STATES, "BY CONTRAST, IN MR. WALKER'S INCOME APPROACH MODELS, HE ASSUMED CAPITAL EXPENDITURE AMOUNTS THAT ARE LESS THAN DEPRECIATION, AND SOMETIMES DID NOT INCLUDE CAPITAL EXPENDITURES AT ALL." IS MR. GARRETT'S STATEMENT CORRECT?

A. No. The Income Approach to valuation used in Gannett Fleming's appraisal includes capital expenditures in every year of the model as shown on Exhibits 15 and 16 of Gannett Fleming's appraisal. Over the course of the 24-year DCF model, shown on Exhibits 15 and 16 of Gannett Fleming's appraisal, the depreciation expense totals $20.533 million and the capital expenditures total $20.208 million. In the 24th year (2044), the depreciation expense is $1.003 million, and the capital expenditures are $0.988 million, a difference of less than 2%. Accordingly, Mr. Garrett's claim is at least misleading if not provably false.

Q. ON OCA EXHIBIT DJG-16 OF MR. GARRETT'S DIRECT TESTIMONY, HE SHOWS THE DEVELOPMENT OF HIS SINGLE YEAR'S "FREE CASH FLOW FROM OPERATIONS" USED IN HIS RECOMMENDED CAPITALIZATION OF EARNING METHOD MODEL. WHAT CONCERNS DO YOU HAVE WITH MR. GARRETT'S DETERMINATION OF "FREE CASH FLOW FROM OPERATIONS" FOR VALUING THE WASTEWATER SYSTEM?

A. I have several concerns and my observations or concerns discussed below reference the information shown on OCA Exhibit DJG-16. First, the revenues ($854,400) and the EBIT ($91,618) amounts are from a single budgeted year 2020, reflecting current ownership, current rates, current operations which do not reflect the anticipation of future benefits of ownership. Second, a single budgeted year 2020, reflecting current ownership, current rates, current operations do not include income taxes nor a fair rate of return. Third, the depreciation expense ($154,351) is based on the original cost of the assets, not a current value of the assets. Fourth, the subtraction of income taxes ($26,468) is not consistent with current ownership as a non-income tax paying entity (i.e., municipality). Finally, the EBIT ($91,618) amount used by Mr. Garrett is equivalent to a before income tax overall rate of return of only 0.69% to 0.89% on the value of net plant, based on Gannett Fleming's Cost Approach ($13,254,220) or Mr. Garrett's Cost Approach ($10,300,783), and is clearly below the zone of reasonable returns for public utility assets.

Therefore, based on the aforesaid, I believe Mr. Garrett's "Annual Cash Flow" of $65,150, shown on OCA Exhibit DJG-15 and developed on OCA Exhibit DJG-16, is not appropriate to use to determine the value of the Wastewater System and should not be adopted by the Commission.

Q. IS MR. GARRETT'S DISCOUNT RATE SHOWN ON OCA EXHIBIT DJG-15 OF HIS TESTIMONY AN APPROPRIATE DISCOUNT RATE TO USE FOR FAIR MARKET VALUATION PURPOSES?

A. No. Mr. Garrett's 4.7% discount rate (cost of capital) shown on OCA Exhibit DJG-15 and developed on OCA Exhibit DJG-17 is not appropriate and is not determined in accordance with accepted valuation practice for five reasons. First, Mr. Garrett developed his 4.7% discount rate based on methods used by witnesses who provide testimony before the Commission concerning fair rate of return on original cost rate base; whereas discount rates used in the income approach to valuation under a standard of value of fair market value are not calculated in this manner. Second, Mr. Garrett's capitalization of earnings method (OCA Exhibit DJG-15) incorporates budgeted 2020 revenues and EBIT reflecting current ownership, current rates, and current operations as a municipality. Accordingly, Mr. Garrett's discount rate should similarly be based on a municipality's discount rate, not an investor-owned discount rate, so that the cash flows and discount rates are coordinated.

Third, Mr. Garrett used book capitalization ratios (*i.e.*, 49% debt and 51% equity ratios) calculated from a balance sheet. Book capitalization ratios, such as those used by Mr. Garrett, are only used in rate proceedings, whereas market value capitalization ratios at the valuation date (*i.e.,* March 31, 2020) are in accordance with accepted valuation practice and used for market valuation purposes.[12] For a municipality, the appropriate capitalization ratio is always 100% debt because debt is the only major source of capital

12 Both the American Society of Appraisers, ASA Business Valuation Standards, 2009, and the National Association of Certified Valuation Analysts, Professional Standards, 2007, use the same definition: "Weighted Average Cost of Capital (WACC). The cost of capital (discount rate) determined by the weighted average, at market values, of the cost of all financing sources in the business enterprise's capital structure."

available to finance an acquisition. Although a municipality likely carries equity on its books (balance sheet), all existing equity is already invested in other assets and therefore, cannot be used to finance an acquisition.[13]

Fourth, Mr. Garrett used an embedded cost of debt of 4.8% or the historical cost of all debt issuances outstanding (OCA Exhibit DJG-18) of his comparison companies. An embedded cost of debt, such as that used by Mr. Garrett, is only used in rate proceedings, whereas the marginal cost of debt at the valuation date (*i.e.*, March 31, 2020) is in accordance with accepted valuation practice and used for market valuation purposes.[14] For a municipality, the appropriate debt cost rate is the current municipal revenue bond rate at the valuation date.

Fifth, Mr. Garrett's equity cost rate was not determined at the valuation date (*i.e.*, March 31, 2020) in accordance with accepted valuation practice and used for market valuation purposes. Rather, Mr. Garrett's equity cost rate was calculated over a period of time from September 16, 2020 to October 28, 2020 (OCA Exhibits DJG-19 and DJG-21) and doing so does not comport with the requirements of 66 Pa. C.S. § 1329 nor comply with the Uniform Standards of Professional Appraisal Practice. A fair market value appraisal is determined on a stated valuation date, not for a period. Gannett Fleming's stated valuation date was March 31, 2020.

Therefore, based on the aforesaid, I believe Mr. Garrett's 4.7% discount rate (cost of capital) shown on OCA Exhibit DJG-15 and developed on OCA Exhibit DJG-17 is not

13 For example, when a municipal or government entity, such as the Commonwealth of Pennsylvania, finances construction of a road or bridge, it only considers the marginal debt cost despite having "equity" reflected on its books (balance sheet).

14 For example, see http://www.investinganswers.com/financial-dictionary/financial-statement-analysis/weighted-average-cost-capital-wacc-2905. *Also see* http://www.wallstreetmojo.com/weighted-average-cost-capital-wacc/ , or http://accountingexplained.com/misc/corporate-finance/wacc .

appropriate to use to determine the value of the Wastewater System and should not be adopted by the Commission.

Selected Transaction Method

Q. ON PAGES 11 TO 15 OF MR. GARRETT'S TESTIMONY, HE EXPLAINS HIS ADJUSTMENTS TO THE SELECTED TRANSACTION METHOD. WOULD YOU PLEASE SUMMARIZE MR. GARRETT'S ADJUSTMENTS TO THE GANNETT FLEMING SELECTED TRANSACTION METHOD AND IDENTIFY THE TOPICS THAT YOU WILL ADDRESS IN YOUR REBUTTAL TESTIMONY?

A. Yes. Mr. Garrett's adjustments to the Gannett Fleming selected transaction method to valuation include using rate base value in lieu of purchase price, excluding some financial statement metrics, other un-documented, or unexplained, changes to metrics and the removal of selected transactions utilized by Gannett Fleming.

Q. DO MR. GARRETT'S RECOMMENDED ADJUSTMENTS TO THE SELECTED TRANSACTION METHOD MEET A STANDARD OF VALUE OF FAIR MARKET VALUE?

A. No. For the reasons discussed later in my testimony, Mr. Garrett's recommendations do not meet a standard of value of fair market value and are in direct violation of Section 1329 of the Code.

Q. ON PAGE 13 MR. GARRETT STATES, "MR. WALKER ALSO RELIED ON THE [PROPERTY, PLANT AND EQUIPMENT ("PP&E")] DATA FROM FINANCIAL STATEMENTS FOR HIS CAPITAL AND DEMOGRAPHIC STATISTICS, RATHER THAN THE ORIGINAL COST NEW LESS DEPRECIATION ('OCNLD') DATA USED IN THE RESPECTIVE 1329 PROCEEDINGS." IS MR. GARRETT CORRECT?

A. No. The Gannett Fleming appraisal's selected transaction method uses both data from financial statements, or *ex-ante* data and OCNLD data used in the respective 1329 proceeding, or *ex-post* data. The Gannett Fleming appraisal uses both *ex-ante* and *ex-post* data. I believe *ex-ante* data is the proper data to use but recognize limited *ex-ante* data exists.[15] Accordingly, the Gannett Fleming appraisal **uses both** *ex-ante* and *ex-post* data.

The selected transaction method contained in Gannett Fleming's appraisal determines a value $13,139,898 for the Wastewater System's assets using both *ex-ante* and *ex-post* data. If the *ex-ante* data were excluded (financial statements), the selected transaction method contained in Gannett Fleming's appraisal would have produced a value $13,072,693 for the Wastewater System using only *ex-post* data (OCNLD), a difference of $67,205, or less than 1% from Gannett Fleming's appraisal determining a value of $13,139,898.

I should note that an identical approach of excluding *ex-ante* data (financial statements) was recommended by OCA in Cheltenham and it was rejected by the Commission. The selected transaction method relies on and reflects information that was

[15] See page 41 of the Gannett Fleming appraisal, "[c]omplete information only exists for a few of the transactions, with only Customers and Population having ample data for all transactions as is evident from the information shown (Exhibit 18, page 2). Therefore, we supplemented the ex-ante data with ex-post information of GPPE and NPPE (collectivity called "Asset Items") as shown on page 3 of Exhibit 18." (Appendix A-5.2 of PAWC's Application)

known, *ex-ante*, at the time the winning purchase bid (price) was given. After all, the winning purchase bid (price) could not have reflected *ex-post* information that was not available when it was made. The metrics (property, plant and equipment, Customers, etc.) used in the selected transaction method are relative to the time period the bid (price) was made. That is, the metrics are time period sensitive. For example, a 2016 bid would likely reflect metrics from 2015 since the results of 2016 would not be known at the time. It is unrealistic for Mr. Garrett to suggest that only *ex-post* data that only **becomes available after a bid is made** is more appropriate than *ex-ante* financial information in the Market Approach.

Although Mr. Garrett claims he removed the *ex-ante* financial information from the selected transaction method, he still used the *ex-ante* financial information metric of "investor capital" in his selected transaction method on OCA Exhibit DJG-4. Accordingly, Mr. Garrett's testimony is at odds with OCA Exhibit DJG-4. Had he removed all *ex-ante* financial information including "investor capital" metrics, his indicated value produced by his selected transaction method would be $151,870 higher. (See Exhibit HW-1, page 4 for Mr. Garrett's response to Royersford Borough's Interrogatories, Set I, question 9.)

Q. ON PAGE 13 OF MR. GARRETT'S DIRECT TESTIMONY, HE STATES, "IN CONDUCTING THE SELECTED TRANSACTIONS METHOD, MR. WALKER RELIED ON THE PROPOSED PURCHASE PRICES FOR EACH ACQUISITION, RATHER THAN THE FAIR MARKET VALUE RATE BASE APPROVED BY THE COMMISSION . . . I AM PROPOSING ADJUSTMENTS REGARDING

BOTH OF THESE ISSUES, AS FURTHER DESCRIBED BELOW." DO YOU BELIEVE MR. GARRETT PRESENTED A VALID JUSTIFICATION FOR USING THE RATE BASE VALUE AS AN ALTERNATIVE TO THE ACTUAL PURCHASE PRICES?

A. No. An identical approach was recommended by OCA in Cheltenham and it was rejected by the Commission. The selected transaction method relies on and reflects information that was known at the time the winning purchase bid (price) was given. After all, the winning purchase bid (price) could not have reflected information that was not available when it was made. For McKeesport, the re-negotiated $159 million or the Commission-approved rate base value of $158 million was not known at the time of the bid. For Limerick, the correct purchase price of $75 million should be used in the selected transaction method in lieu of the Commission's determined ratemaking rate base value because $75 million was the amount bid and paid by the buyer. The same is true regarding McKeesport, the correct purchase price was used in Gannett Fleming's appraisal in lieu of the Commission's determined ratemaking rate base value because the purchase price was the amount bid and paid by the buyer. A Commission determined ratemaking rate base value for an entity does not change the price bid and paid by a buyer.

The selected transaction method relies on and reflects information that was known at the time the winning purchase bid (price) was given. Further, as stated, the metrics are time period sensitive. For example, a bid (price) made in 2016 could only reflect metrics from 2015 since the results of 2016 were not known at the time of the bids.

The purchase prices used by Mr. Garrett in his selected transactions method are based on the PUC ratemaking rate base value not the purchase price determined by buyer

and seller. The valuation approach is the Market Approach based on market values, not the "PUC ratemaking rate base value approach." There is no authoritative source which supports use of PUC ratemaking rate base value in the Market Approach.

Q. DID MR. GARRETT MAKE ADDITIONAL ADJUSTMENTS TO THE SELECTED TRANSACTION METHOD IN ADDITION TO THE ITEMS HE DISCUSSED IN HIS TESTIMONY?

A. Yes. OCA Exhibit DJG-4 shows 12 adjustments to the selected transaction method while only two were discussed in Mr. Garrett's direct testimony. Because I do not know the basis for Mr. Garrett's adjustments to the selected transaction method, which were not discussed in his direct testimony, I cannot agree with, or specifically address many of the adjustments that are shown on OCA Exhibit DJG-4. Some of Mr. Garrett's unexplained adjustments involve OCNLD values, customer count and population.

For example, OCA Exhibit DJG-4 shows 20,320 customers for City of McKeesport while Gannett Fleming's appraisal used 12,780 customers for the same transaction, or about a 60% difference in customers. However, on page 3, of Appendix B of the "Proposed Findings of Fact, Joint Petition for Settlement of All Issues (Including Statements in Support)" in Docket No. A-2017-2606103 (City of McKeesport), item 2 paragraph e. states, "[a]s of December 31, 2016, MACM furnished wastewater services directly to 12,780 customers." Accordingly, I do not know the basis for OCA Exhibit DJG-4 use of 20,320 customers for City of McKeesport since OCA was a signatory of the City of McKeesport settlement.

Additionally, Mr. Garrett includes only six selected transactions shown on OCA

Exhibit DJG-4. The selected transaction method included in Gannett Fleming's appraisal includes information for 12 selected transactions. Mr. Garrett did not explain why he excluded six selected transactions. The selected transactions missing from OCA Exhibit DJG-4 include Steelton Borough (Water) Authority, Exeter Township Wastewater System Assets, Kane Borough Authority Wastewater System, Sadsbury Township Wastewater Utility, and Cheltenham Township Wastewater System Assets. Additionally, the selected transaction method included in Gannett Fleming's appraisal includes separate transactions for the Township of Mahoning Water System Assets and the Township of Mahoning Sewer System Assets while OCA Exhibit DJG-4 shows these as a single transaction.

I should note that Mr. Garrett **includes** all the selected transactions that he **excluded** from OCA Exhibit DJG-4 in his adjustments to the AUS Consultants appraisal's selected transaction shown on OCA Exhibit DJG-5.

I note that during discovery, Royersford asked OCA for documentation supporting their adjustments shown on OCA Exhibit DJG-4 but OCA declined to provide the requested information (See Exhibit HW-1, page 5 for Mr. Garrett's response to Royersford Borough's Interrogatories, Set I, question 13).

Recommended Weighting

Q. WOULD YOU RECOMMEND USING THE WEIGHTINGS MR. GARRETT APPLIED TO HIS RESULT OF THE VALUATION APPROACHES SHOWN?

A. No, Mr. Garrett recommended substantial changes to each valuation approach. Mr. Garrett does not justify the weightings he applied to the valuation approaches shown. Mr. Garrett did not conduct an appraisal. Mr. Garrett assumes weightings remain the same

regardless of the results of the valuation approaches which is "putting the wagon ahead of the horse." An appraisal is an opinion of fair market value and is not a "mechanical" process. When information changes, opinions, weightings, methodologies, and techniques change as well.

By attempting to analyze and adjust Gannett Fleming's appraisal, Mr. Garrett is doing no more than selectively choosing the parts of the appraisal that are to his liking while jettisoning those parts that are not. Depending on the quantity and quality of the results, weights applied under fair market value differ, but Mr. Garrett did not do this.

CONCLUSION

Q. IS THERE ANYTHING PRESENTED IN MR. GARRETT'S TESTIMONY THAT WOULD RESULT IN YOU ALTERING YOUR FAIR MARKET VALUE APPRAISAL OF THE WASTEWATER SYSTEM'S ASSETS?

A. No, there was nothing presented in Mr. Garrett's testimony which would result in our changing our fair market value appraisal of the Wastewater System.

Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does. However, I reserve the right to supplement my testimony as additional issues arise during this proceeding.

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF ROYERSFORD BOROUGH DIRECTED TO OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

10. Please provide the following, if not already provided:

a. A list of valuations of utility property performed by Mr. Garrett;

b. A list of fair market value appraisals of utility property performed by Mr. Garrett;

c. A list of all dockets in which Mr. Garrett submitted testimony to a public utility commission related to the valuation of wastewater utility property;

d. An electronic copy of testimony in which Mr. Garrett testified on valuation in the past three years;

e. A list of all dockets in which Mr. Garrett submitted testimony to a public utility commission related to the appraisal of wastewater utility property; and

f. An electronic copy of testimony in which Mr. Garrett testified on public utility fair market value acquisitions in the past three years.

Response:

a. Mr. Garrett has not performed a valuation of utility property.

b. Mr. Garrett has not performed an appraisal of utility property.

c. In addition to the present proceeding, Mr. Garrett submitted testimony in A-2019-3009052 before the Pennsylvania Public Utility Commission (Acquisition of the Wastewater System Assets of East Norriton).

d. Mr. Garrett's prior testimony is attached.

e. See response to 10(d) above.

f. See response to 10(d) above.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF ROYERSFORD BOROUGH DIRECTED TO OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

5. Please provide the date of Mr. Garrett's inspection or review of the Wastewater System Assets of Royersford Borough.

Response:

Mr. Garrett did not conduct a physical inspection of the Wastewater System Assets of Royersford Borough. Mr. Garrett's review of the Wastewater System Assets of Royersford Borough involved a review of the application and appraisals conducted by the UVEs.

Sponsoring Witness: David J. Garett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF ROYERSFORD BOROUGH DIRECTED TO OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

11. Please provide a copy of Mr. Garrett's most recent three testimonies in which he determined the service lives for investor owned wastewater utilities assets.

Response:

Mr. Garrett's most recent testimonies in which he determined service lives for investor owned wastewater utility assets are attached.

Sponsoring Witness: David J. Garrett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF ROYERSFORD BOROUGH DIRECTED TO OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

9. Please provide all schedules, exhibits, tables, figures and supporting workpapers in electronic format with all formulas intact supporting the testimony of Mr. Garrett. This is an ongoing request for all subsequent testimonies filed in this docket.

Response:

Please see attached Workpapers.

Sponsoring Witness: David J. Garett

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough

DOCKET NO. A-2020-3019634

INTERROGATORIES OF ROYERSFORD BOROUGH DIRECTED TO OFFICE OF CONSUMER ADVOCATE WITNESS MR. GARRETT
SET I
WITNESS DAVID J. GARRETT

13. Please provide a copy of the source for the purchase price, Gross PP&E, Net PP&E, population and number of customers for each comparable acquisition used in OCA Exhibit DJG-4 if that value differs from the value used in the Gannett Fleming appraisal.

Response:

The source information is publically available, contained in Commission Orders, available on the Commission's website: http://www.puc.pa.gov.

Sponsoring Witness: David J. Garrett

VERIFICATION

I, Harold Walker, III hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unsworn falsification to authorities.

Harold Walker III, Manager, Financial Services
Gannett Fleming

Dated: January 6, 2021

OCA Statement 1

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Re: Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough	: : : : :	Docket No. A-2020-3019634

DIRECT TESTIMONY

OF

DAVID J. GARRETT

ON BEHALF OF

THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

December 22, 2020

TABLE OF CONTENTS

APPENDICES

LIST OF EXHIBITS

I. INTRODUCTION

Q. State your name and occupation.

A. My name is David J. Garrett. I am a consultant specializing in public utility regulation. I am the managing member of Resolve Utility Consulting, PLLC.

Q. Summarize your educational background and professional experience.

A. I received a B.B.A. with a major in Finance, an M.B.A. and a Juris Doctor from the University of Oklahoma. I worked in private legal practice for several years before accepting a position as assistant general counsel at the Oklahoma Corporation Commission in 2011. At the Oklahoma Commission, I worked in the Office of General Counsel in regulatory proceedings. In 2012, I began working for the Public Utility Division as a regulatory analyst providing testimony in regulatory proceedings. After leaving the Oklahoma Commission, I formed Resolve Utility Consulting, PLLC, where I have represented various consumer groups, state agencies, and municipalities in utility regulatory proceedings, primarily in the areas of cost of capital and depreciation. I am a Certified Depreciation Professional with the Society of Depreciation Professionals. I am also a Certified Rate of Return Analyst with the Society of Utility and Regulatory Financial Analysts. A more complete description of my qualifications and regulatory experience is included in my curriculum vitae.[1]

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Pennsylvania Office of Consumer Advocate ("OCA").

---

[1] OCA Exhibit DJG-1.

Q. Describe the scope and organization of your testimony.

A. My testimony addresses the application filed by Pennsylvania-American Water Company ("PAWC" or the "Company") for the acquisition of the Borough of Royersford's (the "Borough") assets related to its wastewater collection system (the "Wastewater System"). My testimony responds to the fair market value ("FMV") approaches addressed in the testimonies of Harold Walker, III of Gannett Fleming, who sponsors the FMV appraisals commissioned by the Borough, and Jerome C. Weinert, who sponsors the appraisal commissioned by PAWC.

II. EXECUTIVE SUMMARY

A. Overview

Q. Please summarize PAWC's application in this proceeding.

A. In its application, PAWC proposes to acquire the Borough's wastewater assets under Sections 507, 1102 and 1329 of the Public Utility Code (the "Code"). According to Section 1329(c)(2) of the Code, the ratemaking rate base is the lesser of the negotiated purchase price or the average of two FMV appraisals. The FMV estimated by Gannett Fleming and AUS Consultants is $13.2 million[2] and $13.8 million, respectively.[3] The purchase price negotiated by PAWC and the Borough is $13 million. Thus, the proposed rate base in the application is $13 million.

---

[2] Borough of Royersford Statement No. 2, Direct Testimony of Harold Walker, III, p. 26, line 12.

[3] PAWC Statement No. 4, Direct Testimony of Jerome C. Weinert, p. 3, line 10.

Q. Please summarize the FMV appraisals commissioned by the Company and the Borough.

A. Gannett Fleming and AUS Consultants provided appraisals using the cost, income, and market approaches, as set forth in Section 1329(a)(3) of the Code. The following table outlines the results of Gannett Fleming's appraisal.[4]

Figure 1:
Gannett Fleming Appraisal Results

Approach	Base Value	Weight	Weighted Value
Market	$ 12,471,156	33.4%	$ 4,165,366
Cost	13,254,220	33.3%	4,413,655
Income	13,932,841	33.3%	4,639,636
Total			$ 13,218,657

As shown in the table, the weighted average FMV estimated by Gannett Fleming is $13.2 million. The table below shows the results of AUS Consultants' appraisal.

Figure 2:
AUS Consultants Appraisal Results

Approach	Base Value	Weight	Weighted Value
Market	$ 12,873,137	10.0%	$ 1,287,314
Cost	13,376,109	50.0%	6,688,055
Income	14,486,081	40.0%	5,794,432
Total			$ 13,769,801

[4] Mr. Walker rounded the total to $13,219,000.

The weighted average FMV estimated by AUS Consultants is $13.8 million. As discussed further in my testimony, the estimates provided by both UVEs under all three approaches are influenced by several unreasonable assumptions.

Q. Please summarize your adjustments to the FMV appraisals.

A. In this case, I provide reasonable adjustments under all three valuation approaches, as discussed further in my testimony. The table below outlines my adjustments to Gannett Fleming's appraisal under all three approaches.[5]

Figure 3:
Adjustments to Gannett Fleming Appraisal

Approach	OCA Adjustment	Adjusted Value	OCA Weight	OCA Weighted Value
Cost	$ (1,809,367)	$ 10,661,789	33.3%	$ 3,553,930
Income	(2,953,437)	10,300,783	33.3%	3,433,594
Market	(5,882,188)	8,050,653	33.3%	2,683,551
Total				$ 9,671,075

Applying reasonable adjustments to Gannett Fleming's appraisal results in a weighted average FMV of $9.7 million. The table below outlines my adjustments to AUS Consultants' appraisal.[6]

[5] *See* OCA Exhibit DJG-2.

[6] *Id.*

Figure 4:
Adjustments to AUS Consultants Appraisal

Approach	OCA Adjustment	Adjusted Value	OCA Weight	OCA Weighted Value
Cost	$ (2,925,782)	$ 9,947,355	33.3%	$ 3,315,785
Income	(643,364)	12,732,745	33.3%	4,244,248
Market	(6,435,428)	8,050,653	33.3%	2,683,551
Total				$ 10,243,584

Applying reasonable adjustments to AUS Consultants' appraisal results in a weighted average FMV of $10.2 million. The detailed technical aspects of my adjustments to these appraisals are discussed below.

Q. Are you also recommending a different empirical weighting be applied to the valuations than those applied by AUS Consultants?

A. Yes. Mr. Weinert applied different weightings to each of the three approaches, as shown in Figure 2 above. While I do not necessarily believe that unequal weighting should never be applied to the valuation approaches, I do not believe Mr. Weinert provided convincing reasons for his unequal weightings in this case.

Q. Please describe the results of each appraisal had equal weighting been applied.

A. The following table shows the result of AUS Consultants' appraisal using equal weighting (and all else held constant).

Figure 5:
AUS Consultants' Results Using Equal Weighting

Approach	Base Value	Weight	Weighted Value
Cost	$ 12,873,137	33.3%	$ 4,291,046
Income	13,376,109	33.3%	4,458,703
Market	14,486,081	33.3%	4,828,694
Total			$ 13,578,442

In this case, applying equal weighting to the AUS Consultants appraisal would not have made a significant impact to the analysis ($13.8 million vs. $13.6 million), particularly since both results are higher than the negotiated purchase price. Nonetheless, my weighted average adjusted valuations in this case contemplate equal weightings to all three valuation approaches (33.3%).

B. Recommendation

Q. Please summarize your recommendation to the Commission.

A. As stated above, according to Section 1329(c)(2) of the Code, the ratemaking rate base is the lesser of the negotiated purchase price and the average of the two FMV appraisals. In this case, both UVEs' FMV estimates were higher than the purchase price of $13 million. However, when reasonable adjustments are applied to the appraisals, and those adjusted results are averaged, the resulting FMV estimate is $9.3 million, which is less than the negotiated purchase price. The results are summarized in the table below.[7]

[7] *Id.*

Figure 6:
OCA's Recommended Rate Base

	Appraiser Results	OCA Adjusted
Gannett Fleming	$ 13,218,657	$ 9,671,075
AUS Consultants	13,769,801	10,243,584
Average	$ 13,494,229	$ 9,957,330
Purchase Price	$ 13,000,000	$ 13,000,000
Proposed Ratebase	**$ 13,000,000**	**$ 9,957,330**

I recommend the Commission approve a rate base of $9,957,330 pursuant to Section 1329(c)(2) of the Code.

III. MARKET APPROACH

Q. What is the market approach?

A. The Market Approach, also called the Sales Comparison Approach by The American Society of Appraisers, is defined as follows: A procedure to conclude an opinion of value for a property by comparing it with similar properties that have been sold or are for sale in the relevant marketplace by making adjustments to prices based on marketplace conditions and the properties' characteristics of value.[8]

[8] "Approaches to Value." American Society of Appraisers accessed December 27, 2019, http://www.appraisers.org/Disciplines/Personal-Property/pp-appraiser-resources/approaches-to-value

Q. Please summarize the UVEs' valuations under the market approach.

A. Gannett Fleming estimates a market approach valuation of $12.5 million and AUS Consultants estimates a market approach valuation of $12.9 million.[9] The details of these estimates as well as my proposed adjustments are discussed further below.

A. Adjustment to Gannett Fleming's Market Approach

Q. Please describe Gannett Fleming's market approach valuation.

A. In his appraisal, Mr. Walker used the Market Multiples method and Selected Transactions method.

Q. Please describe Gannett Fleming's market Multiples Method.

A. Mr. Walker multiplied certain Borough metrics such as gross and net PP&E (property, plant and equipment) and the number of customers by the ratio of enterprise value to the same metric for a group of publicly traded water utilities referred to as the Comparable Group. Mr. Walker increased the Comparable Group ratios (called "multiples") by adjustments which he indicates are intended to reflect growth, risk, and contributions. After this calculation for each metric, Mr. Walker averaged some of the results and determined a Market Approach valuation of $12.5 million.[10]

---

[9] *See* OCA Exhibit DJG-2; Appendix A-13-b, Direct Testimony of Harold Walker., p. 26, lines 14-15; Appendix A-14-b, Direct Testimony of Jerome C. Weinert., p. 3, lines 9-10.

[10] See Appendix A-5.2, Gannett Fleming Fair Market Value Appraisal, pp. 36-39.

Q. Are you proposing any adjustments to Mr. Walker's market multiples method?

A. No. However, I propose several adjustments to Mr. Walker's selected transactions method, as further described below.

Q. Please describe Mr. Walker's Selected Transactions method.

A. In Mr. Walker's selected transactions method, he estimates the valuation of the Borough system using ratios based on financial and demographic statistics from other acquired systems. The table below shows an example of this process, using the Limerick acquisition.

Figure 7:
Example of Selected Transaction Method

Township / Acquired System	Purchase Price and Capital Statistic	Price / Statistic Ratio	Adjusted Statistic
Royersford			
Investor Capital	$ 4,702,972		
Gross PP&E	7,666,493		
Net PP&E	5,453,064		
Limerick	$ 75,100,000		
Investor Capital	43,501,755	1.73	$ 8,119,056
Gross PP&E	60,847,250	1.23	9,462,278
Net PP&E	36,113,701	2.08	11,339,882

The table above shows three capital statistics for both the Borough and Limerick – investor capital, gross property, plant and equipment ("PP&E"), and net PP&E.[11] As shown in the table, for example, the purchase price-net PP&E ratio used by Gannett Fleming for Limerick is 2.08. If the same ratio is applied to the Borough's net PP&E of $5.5 million,

[11] *See also* OCA Exhibit DJG-4.

it implies a purchase price value of $11.3 million. Similar calculations were conducted for New Garden, East Bradford, Mahoning, and East Norriton.

Q. Please describe your adjustments to the Selected Transactions method.

A. In conducting the selected transactions method, Mr. Walker relied on the proposed purchase prices for each acquisition, rather than the fair market value rate base approved by the Commission. Mr. Walker also relied on the PP&E data from financial statements for his capital and demographic statistics, rather than the Original Cost New Less Depreciation ("OCNLD") data used in the respective 1329 proceedings. I am proposing adjustments regarding both of these issues, as further described below.

Q. In adjusting the Selected Transactions method results, did you rely on the Commission-approved fair market values rather than the purchase prices for the comparable transactions?

A. Yes. It is more appropriate to consider the actual fair market value approved by the Commission for these comparable transactions when the objective in this case is to ultimately determine a fair market value for the Borough system under Section 1329. Using Commission authorized rate bases instead of purchase prices affected two of the comparable acquisitions – Limerick and East Norriton.[12] For example, Mr. Walker relied on a purchase price of $75.1 million for Limerick, while the Commission-approved value for Limerick is $64.4 million. These adjustments had a decreasing effect on the overall results.[13]

---

[12] *Id.*

[13] *Id.*

Q. In adjusting the Selected Transactions method results, did you rely on the OCNLD data rather than financial statement data for the comparable transactions?

A. Yes. Mr. Walker relied on the PP&E data from financial statements for his capital and demographic statistics, rather than the OCNLD data used in the respective 1329 proceedings. In order to get a commensurable assessment of an implied fair market value, however, it is better to rely on the OCNLD figures provided by the UVEs for the comparable acquisition group, rather than figures reported on financial statements. This is because when making its assessment of the fair market value for each comparable transaction, the Commission considered the OCNLD figures. Thus, it makes sense that the same OCNLD figures should be considered when assessing a fair value under the market approach in this case. This adjustment had a decreasing effect on the overall market approach results.[14] I note that AUS Consultants did not use financial statement data as part of their market approach valuation.

Q. Did you calculate the amount of Mr. Walker's Selected Transaction methodology with the corrections outlined above?

Yes. Incorporating the adjustments discussed above results in a different implied market approach value for the comparable acquisitions. The table below shows the same Limerick acquisition discussed above as an example, but with using the Commission-approved ratemaking rate base instead of the purchase price and using the OCNLD figures instead of the financial statement figures.

---

[14] *Id.*

Figure 8:
Example of Selected Transaction Method

Township / Acquired System	Purchase Price and Capital Statistic	Price / Statistic Ratio	Adjusted Statistic
Royersford			
Investor Capital	$ 4,702,972		
Gross PP&E	7,666,493		
Net PP&E	5,453,064		
Limerick	$ 64,373,378		
Investor Capital	43,501,755	1.48	$ 6,959,402
Gross PP&E	63,480,402	1.01	7,774,337
Net PP&E	46,153,867	1.39	7,605,693

Using the approved ratemaking rate base rather than the purchase price, along with the statistics that were used in the analysis that ultimately led to that approved rate base provides a much more commensurate and accurate indication of the appropriate implied value under the selected transaction method proposed by Gannett Fleming.

Q. Did you eliminate any of the adjusted statistic results from the average of your final indicated valuation?

Yes. I eliminated both the highest and lowest results from the capital and demographic statistical groups.[15]

Q. Please summarize your adjustments to Gannett Fleming's market approach.

A. As discussed above, I am not proposing any adjustments to the market multiples approach used by Gannett Fleming. The adjustments to the selected transactions and overall market approach valuation are summarized in the table below.[16]

---

[15] *See* OCA Exhibit DJG-4.

[16] *See also* OCA Exhibit DJG-3

Figure 9:
Market Approach Valuation Adjustment

	Gannett Fleming Market Approach Results			OCA Adjusted Market Approach Results		
	Amount	Weight	Result	Amount	Weight	Result
Market Multiples	$ 11,802,414	50%	$ 5,901,207	$ 11,802,414	50%	$ 5,901,207
Selected Transactions	13,139,898	50%	6,569,949	9,521,165	50%	4,760,582
Total			$ 12,471,156			$ 10,661,789

As shown in the table, my adjustments to Gannett Fleming's market approach results in a market approach valuation of $10.7 million, which is about $1.8 million less than Gannett Fleming's market approach valuation of $12.5 million.[17]

B. Adjustment to AUS Consultants' Market Approach

Q. Please describe AUS Consultants' market approach valuation.

A. In his appraisal, Mr. Weinert considered the purchase price and Reproduction Cost New Less Depreciation ("RCNLD") data from other comparable acquisitions in Pennsylvania. Using the price-to-RCNLD ratios for each acquisition, he then applied that ratio to the RCNLD amount he estimated for the Borough in order to arrive at the implied market valuation for the Borough. Mr. Weinert's market approach results are summarized below.

[17] *See also* OCA Exhibit DJG-7.

Figure 10:
AUS Market Approach Valuation Adjustment

Acquisitions	Purchase Price		RCNLD		Ratio
Aqua/New Garden	$ 29,500,000		$ 30,615,410		0.96
PAWC/McKeesport	159,000,000		160,301,491		0.99
Aqua/Limerick	75,100,000		86,086,756		0.87
SUEZ/Mahoning Water	4,734,800	*	8,899,336	*	0.53
SUEZ/Mahoning Wastewater	4,765,200	*	7,991,234	*	0.60
Aqua/East Bradford	5,000,000	*	9,236,581	*	0.54
PAWC/Sadsbury	9,250,000		8,517,587		1.09
PAWC/Exeter	96,000,000		99,589,819		0.96
PAWC/Steelton	22,500,000		23,921,473		0.94
Aqua/Cheltenham	50,250,000		49,940,486		1.01
PAWC/Kane	17,560,000	*	29,015,055	*	0.61
Aqua/East Norriton	21,000,000		27,461,356		0.76
Total Included	$ 412,350,000		$ 436,493,892		0.94

The asterisks in this table represent the transactions Mr. Weinert excluded from his calculations. Mr. Weinert ultimately estimates a market value of $12.9 under this approach.[18]

Q. Do you agree with Mr. Weinert's estimate?

A. No. There are several unreasonable assumptions in Mr. Weinert's analysis that should be adjusted.

[18] *See* OCA Exhibit DJG-2.

Q. Please describe your adjustments to AUS Consultants' market approach valuation.

A. As discussed in regard to the Gannett Fleming analysis, I am proposing two adjustments to AUS Consultants' market approach valuation. First, instead of using the purchase price for each transaction, it would be more appropriate to use the Commission's approved ratemaking rate base, which is the actual approved fair market value as defined by Section 1329. This is reasonable because the entire purpose of the appraisal process is to determine a fair market value for the Borough under Section 1329. In prior acquisitions, the negotiated purchase price and the Commission-approved ratemaking rate base have often been different amounts.[19] To the extent an approved rate base has been less than a negotiated purchase price, the purchase price was in fact greater than the average of the UVEs' fair market value appraisals. Thus, for purposes of determining an implied fair market value through the market approach, it is preferable to consider actual Commission-approved rate base amounts, rather than purchase prices.

In addition, Mr. Weinert excluded four transactions from his analysis that I believe should be included – Mahoning Water, Mahoning Wastewater, East Bradford, and Kane. Mr. Weinert did not provide an adequate justification as to why he excluded these four Section 1329 transactions from his analysis.[20] The total impact of the two market approach adjustments I propose is summarized below.

---

[19] *See e.g.*, OCA Exhibit DJG-11.

[20] If any of the transactions might warrant an exclusion from the analysis, it would be McKeesport due to its relatively much larger negotiated purchase price ($158 million) than Borough transaction ($13 million). As part of my adjustment to Mr. Weinert's market approach, I did not exclude McKeesport from the comparable group. However, as more 1329 transactions are finalized going forward (thus increasing the size of potential comparable groups), it may be appropriate in future 1329 proceedings to consider grouping the transactions by comparable size or type (collection system only, collection and treatment for example).

Figure 11:
Market Approach Valuation Adjustment

	OCA Adjusted Results		
Acquisitions	Fair Market Value	RCNLD	Ratio
Aqua/New Garden	$ 29,500,000	$ 30,615,410	0.96
PAWC/McKeesport	158,000,000	$ 160,301,491	0.99
Aqua/Limerick	64,373,378	86,086,756	0.75
SUEZ/Mahoning Water	4,734,800	8,899,336	0.53
SUEZ/Mahoning Wastewater	4,765,200	7,991,234	0.60
Aqua/East Bradford	5,000,000	9,236,581	0.54
PAWC/Sadsbury	8,300,000	8,517,587	0.97
PAWC/Exeter	92,000,000	99,589,819	0.92
PAWC/Steelton	20,500,000	23,921,473	0.86
Aqua/Cheltenham	44,558,259	49,940,486	0.89
PAWC/Kane	17,560,000	29,015,055	0.61
Aqua/East Norriton	20,750,000	27,461,356	0.76
Total Included	$ 470,041,637	$ 541,576,584	0.78
RCNLD Results			$ 12,732,745
Market Approach Result			**$ 9,947,355**

As shown in the table, using the Commission-approved rate base / fair market value for each transaction instead of the purchase price, and the comparable transactions from Mr. Weinert's group results in an overall FMV-RCNLD ratio of 0.78. I then applied that ratio to the RCNLD result of $12.7 million as estimated in my cost approach valuation (discussed further below).

Q. Please summarize your adjustment to AUS Consultants' market approach valuation.

A. My adjusted market approach adjustment of $9.9 million is $3 million less than AUS Consultants' estimate of $12.9 million.

IV. COST APPROACH

Q. What is the Cost Approach?

A. The Cost Approach is defined by The American Society of Appraisers as "[a] procedure to estimate the current costs to reproduce or create a property with another of comparable use and marketability."[21]

Q. Please summarize the UVEs' valuations under the cost approach.

A. Gannett Fleming's appraisal relied on the reproduction cost method,[22] and AUS Consultants' appraisal relied on the replacement cost method.[23] Both UVEs estimated accumulated depreciation, or the depreciation "reserve", as a reduction to their respective cost estimates. As part of their depreciation estimates, both UVEs used Iowa curves to estimate the remaining lives of the Borough's depreciable accounts.

Q. Are you proposing adjustments to the UVEs' estimates for replacement or reproduction cost?

A. No. However, I am proposing several adjustments to the depreciation parameters assumed by each UVE, as further discussed below.

---

[21] "Approaches to Value." American Society of Appraisers accessed December 28, 2019. http://www.appraisers.org/Disciplines/Personal-Property/pp-appraiser-resources/approaches-to-value.

[22] Appendix A-13-b, Direct Testimony of Harold Walker, III, p. 16, lines 7-15.

[23] Appendix A-14-b, Direct Testimony of Jerome C. Weinert, p. 6, lines 3-7.

A. Depreciation Analysis

Q. Please generally describe how depreciation rates are typically estimated.

A. Many utilities keep historical records of asset placements and retirements by vintage year. When such data is available, depreciation experts can use actuarial techniques to analyze the historical retirement patterns in each account. The most common of these techniques is called the retirement rate method. Under this method, historical retirement patterns can be displayed graphically in the form of original survivor curves. Depreciation experts then use visual and mathematical curve fitting techniques, along with professional judgement, to select empirically derived Iowa curves that best fit the original survivor curve. The Iowa curve is ultimately used to calculate the average remaining life and depreciation rate for each account.[24]

Q. Does the Borough have the type of retirement data required to conduct the curve fitting techniques you described?

A. No.

Q. Despite the lack of retirement data required to conduct conventional Iowa curve fitting analysis, did the UVEs in this case nonetheless choose Iowa curves to estimate the remaining life and accumulated depreciation for the Borough's accounts?

A. Yes. When aged data are available for conventional actuarial analysis, depreciation analysts can rely on more objective, empirical analysis when selecting the most appropriate Iowa curve and remaining life. In this case, however, the lack of data required for such objective analysis led the UVEs to rely on more subjective elements when choosing their

[24] Please see OCA St. 1, Appendix A for a more detailed discussion of the Iowa curves.

selected Iowa curves. For example, according to Mr. Weinert, the Iowa curves selected for AUS Consultants' appraisal were based on AUS Consultants' "experience in preparing depreciation studies for the water and wastewater industry. . . ."[25] Mr. Walker's justification for his selected Iowa curves was similar: "We believe our average service lives of depreciable assets are appropriate based on our experience . . . ."[26] Thus, both UVEs are relying upon entirely subjective factors, such as "experience," in support of their proposed service lives, without any objective, empirical support.

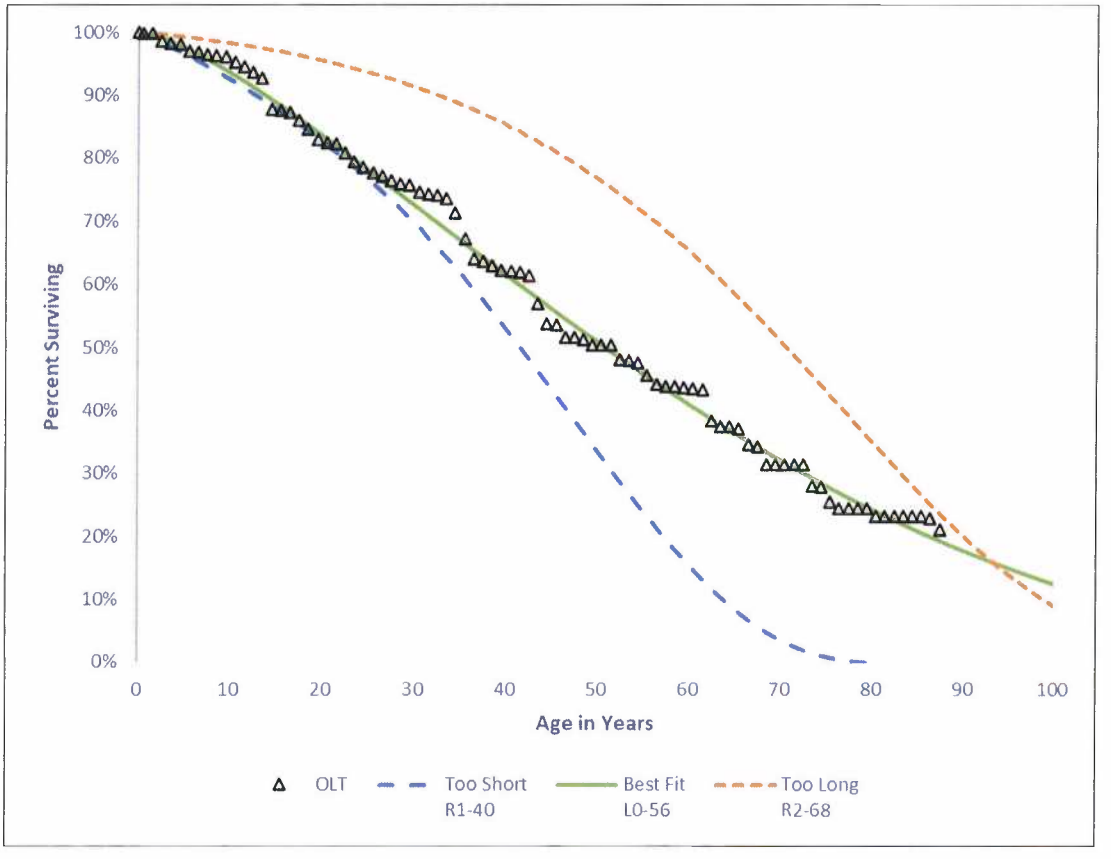
Q. Describe the type of objective evidence typically relied upon by depreciation analysts when adequate data is available.

A. I have responded to many depreciation studies filed by both Gannett Fleming and AUS Consultants in utility rate cases. When adequate historical retirement is available for analysis, we are able to form observed retirement curves from the data, and then we can use those curves for empirical support of the selected Iowa curves. The following chart illustrates an example of this process.

[25] Appendix A-14-b, Direct Testimony of Jerome C. Weinert, p. 9, lines 6-7.

[26] Appendix A-13-b, Direct Testimony of Harold Walker, III, p. 17, lines 17-18.

Figure 12:
Account 999 – Widgets – Iowa Curve Fitting



The numerous quantity of retirement data typically utilized in a depreciation study would be used to create an "observed life table" ("OLT") from which the "OLT curve" (or original survivor curve) could be created (shown in black triangles in the graph above). One of the primary benefits of having adequate historical data to form an OLT curve is that it provides the analysts (and regulators) with a visual description of the historical retirement pattern in the account. This is a valuable tool in being able to assess the appropriateness of the fit for a particular Iowa curve. In the simple example above, we can clearly see that an R1-40 Iowa curve would be too short, an R2-68 Iowa curve would be too long, and that an L0-56

Iowa curve would provide the best fit to the observed data. In contrast to this situation, we do not have the type of data required in this case to form an OLT curve for the purposes of Iowa curve fitting.

Q. Does simply referring to experience provide adequate justification for a selected Iowa curve?

A. No. While analysts may rely on their experience in developing opinions on Iowa curves, "experience" alone without any objective support is insufficient.

Q. Please summarize the adjustments you propose to the Iowa curves used by Gannett Fleming and AUS Consultants to determine the amount of accrued depreciation?

A. I am proposing adjustments to Accounts 354 (Structures and Improvements), 355 (Power Generation), 360 (Collection Sewers – Force Mains, 361 (Collection Sewers – Gravity Mains), and 363 (Services). The specific adjustments to each appraisal are described further below.

B. Adjustment to Gannett Fleming's Cost Approach

Q. Please summarize Gannett Fleming's approach to estimating accrued depreciation.

A. In Gannett Fleming's FMV appraisal, estimated accrued depreciation was subtracted from estimated reproduction cost to develop the overall cost approach valuation of $13.3 million.[27] The accrued depreciation was estimated through Iowa curves selected by Mr. Walker.

[27] *See* OCA Exhibit DJG-6.

Q. Are you proposing any adjustments to the reproduction cost estimates recommended by Gannett Fleming?

A. No. However, I am proposing adjustments to the Iowa curves and accrued depreciation for three accounts.

Q. Please summarize your proposed adjustments to the Iowa curves used by Gannett Fleming to calculate accrued depreciation.

A. I am proposing adjustments to three accounts, as outlined in the following table.

Figure 13:
Proposed Iowa Curve and Accrued Depreciation Adjustments

		Gannett Fleming Position		OCA Adjustments	
Account	Description	Iowa Curve	Accrued Depreciation	Iowa Curve	Accrued Depreciation
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	65-R3	704,829	45-R4	876,682
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	70-R2.5	9,405,215	55-R4	11,371,842
360.21	COLLECTION SEWERS - FORCE - MAINS	70-R2.5	797,128	60-R2.5	849,787
361.21	COLLECTION SEWERS - GRAVITY - MAINS	70-R2.5	9,743,000	60-R2.5	10,333,588
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	65-R3	952,529	60-R3	981,665
363.20	SERVICES TO CUSTOMERS	60-R2.5	1,125,070	45-R3	1,267,645

As shown in the table, I am proposing service lives of 45 and 55 years for the Borough's pumping and treatment structures and improvements accounts, respectively. The 45-R4 and 55-R4 curves I propose for these accounts are the same Iowa curves recommended by Mr. Weinert for these accounts. Additionally, I propose 60-R2.5 curves for the force and gravity collection mains accounts. The 60-year average life is the same proposed by Gannett Fleming for these accounts from another recent wastewater case in which I also testified.[28] Regarding the curve shapes, I did not disagree with Mr. Walker's proposed

[28] *See* OUCC Prefiled Testimony of David J. Garrett – Public's Exhibit No. 1, filed June 22, 2018 in Cause No. 45039 before the Indiana Utility Regulation Commission. Found at http://www.resolveuc.com/representative-engagements

R2.5 curves for these accounts. For Account 361.23, I agreed with Mr. Walker's proposed R3 curve shape, and selected a 60-year average life based on Gannett Fleming's proposed life for gravity collections sewers from the same wastewater case used for the comparable analysis discussed above.[29] Finally, the 45-R3 curve I propose for Account 363.20 is the same Iowa curve recommended by Mr. Weinert for this account.

Q. Please demonstrate how you used the selected Iowa curves to calculate accrued depreciation for these adjusted accounts.

A. To calculate accrued depreciation, I used the same process as Mr. Walker. By selecting shorter Iowa curves, however, the amount of accrued depreciation I calculated is higher than that estimated by Mr. Walker, which ultimately results in a lower cost approach estimate. The figure below shows how I calculated the accrued depreciation for Account 354.40 using the 55-R4 Iowa curve.

Figure 14:
Accrued Depreciation Calculation – Account 354.40

Year	Original Cost	Average Life	Annual Accrual Rate	Annual Accrual Amount	Remaining Life	Accrued Depreciation Factor	Accrued Depreciation Amount
1935	$ 10,058,692	55	1.82%	$ 182,885	0.0	1.00	$ 10,058,692
1986	68,577	55	1.82%	1,247	22.9	0.58	40,049
1987	1,641	55	1.82%	30	23.7	0.57	933
1993	152,546	55	1.82%	2,774	29.1	0.47	71,891
1998	3,093,210	55	1.82%	56,240	33.8	0.39	1,193,979
2014	4,350	55	1.82%	79	49.5	0.10	434
2015	71,833	55	1.82%	1,306	50.5	0.08	5,864
Total	$ 13,450,848			$ 244,561	46.50		$ 11,371,842

The remaining life by vintage year is dictated by the selected Iowa curve.[30]

[29] *Id.*

[30] *See also* OCA Exhibit DJG-8. The remaining life calculations for the other adjusted accounts are found in OCA Exhibits DJG-7 through DJG-12.

Q. Please summarize your adjustment to Gannett Fleming's cost approach valuation.

A. Applying the proposed Iowa curves and accrued depreciation adjustments discussed above, I calculate a cost approach valuation of $10.3 million, which is about $3 million less than Gannett Fleming's proposed cost approach valuation of $13.3 million.[31]

C. Adjustment to AUS Consultants' Cost Approach

Q. Please summarize AUS Consultants' approach to estimating accrued depreciation under the cost approach.

A. AUS Consultants used the replacement cost method as the basis for the cost approach valuation.[32] Similar to Mr. Walker, Mr. Weinert then estimated accrued depreciation in order to calculate the "replacement cost less depreciation" values for each account.

Q. Please summarize your proposed adjustments to the Iowa curves used by AUS Consultants to calculate accrued depreciation.

A. The following table shows my Iowa curve and service life adjustments to Mr. Weinert's proposals.

Figure 15:
Proposed Iowa Curve Adjustments to AUS Consultants

Account	Description	AUS Iowa Curve	OCA Iowa Curve
355.30	POWER GENERATION - PUMPING	30-R3	35-R3
360.20	COLLECTION SEWERS - FORCE - MAINS	75-R3	60-R3
361.21	COLLECTION SEWERS - GRAVITY - MAINS	80-R2.5	60-R2.5
361.22	COLLECTION SEWERS - GRAVITY MAINS - RELINING	60-R2.5	50-R2.5
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	80-R2.5	60-R2.5

[31] *See* OCA Exhibit DJG-6.

[32] Appendix A-14-b, Direct Testimony of Jerome C. Weinert, p. 6, lines 4-7.

The average lives I propose for the collection sewers mains accounts are consistent with those discussed above in response to Gannett Fleming's proposals. My proposed service lives of 30 years and 50 years to the power generation and gravity mains relining accounts, respectively, are the same as those proposed by Gannett Fleming for the same accounts.[33]

Q. Please summarize your adjustment to AUS Consultants' cost approach valuation.

A. Applying the proposed Iowa curves and accrued depreciation adjustments discussed above, I calculate a cost approach valuation of $12.7 million, which is about $0.6 million less than AUS Consultants' proposed cost approach valuation of $13.3 million.[34]

V. INCOME APPROACH

Q. Please summarize the income approach valuations estimated in the UVEs' appraisals.

A. Mr. Walker and Mr. Weinert estimate income approach valuations of $13.9 million and $14.5 million, respectively.[35]

Q. Are you proposing any adjustments to the UVEs' valuations under the income approach?

A. Yes. I propose adjustments reducing Mr. Walker's and Mr. Weinert's income approach valuations by $5.9 million and $6.4 million, respectively.[36]

---

[33] See Appendix A-5.2, Gannett Fleming FMV Appraisal, Exhibit 9, p. 3.

[34] *See* OCA Exhibit DJG-2 and DJG-13.

[35] *See* OCA Exhibit DJG-2.

[36] *Id.*

Q. Please summarize your income approach adjustment.

A. My income approach adjustment is based on the theory that assets that are expected to generate cash flows over time can be valued with various discounted cash flow models. While this basic premise also underlies the approach taken by the UVEs in their income approach valuations, I believe several reasonable adjustments are warranted, as further discussed in this section. Under this valuation method, the value of an asset (the Borough's wastewater system assets in this case), is equal to the present value of its future cash flows. This model also requires estimates for a growth rate and discount rate. For publicly traded assets, we can use the dividend discount model. A derivation of this model that solves for the discount rate is called the Discounted Cash Flow ("DCF") model in regulatory proceedings. However, since the Borough is not publicly traded and does not issue dividends, we must consider its estimated free cash flow from operations, rather than dividends, as part of the valuation model.[37] I also proposed adjustments to the UVEs' long-term growth rate and discount rate, which are both key inputs to the DCF Model. Under the DCF Model used for the valuation adjustment in this case, the discount rate is the asset's estimated cost of capital.[38] My adjustment is the result of applying these reasonable estimates to the UVE income approaches.

---

[37] *See* OCA Exhibit DJG-15.

[38] The discount rate in DCF Model applied to publicly traded firms is the cost of equity, since the cash flows under that model are cash flows to equity (i.e., post debt dividend payments). In the discounted cash flow valuation model applied to the Borough, the discount rate is the cost of capital, since we are assuming cash flows to the firm (i.e., pre-debt cash flows).

A. Free Cash Flow From Operations

Q. Please summarize how you adjusted the Borough's free cash flows from operations.

A. First, I considered the 2020 operating revenues, earnings before interest and taxes ("EBIT"), and depreciation amounts presented by Mr. Walker.[39] By contrast, in Mr. Walker's income approach models, he assumed capital expenditure amounts that are less than depreciation, and sometimes did not include capital expenditures at all. In order for revenue growth to occur (which is discussed further below), we must also assume capital expenditures. My model contemplates capital expenditures that are equal to depreciation expense. In reality, if a company is growing (and under this model we assume the Borough is), then its capital expenditures should actually exceed its depreciation. However, over the total life of the asset, total depreciation should equal net capital expenditure. In a constant growth discounted cash flow model, if capital expenditures exceed depreciation, it would essentially assume that the company is expanding into infinity. On the other hand, if the constant DCF model included capital expenditures that were lower than depreciation, it would assume that the company's asset base is declining. Thus, for the income approach valuation under the circumstances, it is preferable that capital expenditures will equal depreciation, and that the Borough will grow its cash flows according to the long-term growth rate estimate, which is further discussed below. Thus, I adjusted Mr. Walker's cash flow calculation by subtracting capital expenditures in the amount of depreciation expense.

[39] *See* Appendix A-5.2, Gannett Fleming FMV Appraisal, Exh. 12.

Based on this analysis, my adjusted free cash flow from operations is $65,150 for the Borough.[40]

B. Discount Rate – Cost of Capital

Q. Please summarize how you adjusted the Borough's cost of capital.

A. The weighted cost of capital essentially involves several key components, including the cost of debt, the cost of equity, and the capital structure. In terms of estimation, the most critical of these components is the cost of equity. To arrive at my adjusted cost of equity, I considered a proxy group of water utilities substantially similar to the proxy group considered by the UVEs. There are several benefits of using a proxy group when estimating the cost of equity for a regulated utility company. Often the most apparent reason, as is the case here, is that the target asset is often not publicly traded. Publicly traded assets have readily obtainable data regarding some of the key components to cost of equity estimation, including stock prices, dividends, and beta estimates. Because I used the proxy group of utilities for the cost of equity adjustment, I used the same group for the cost of debt and capital structure estimates. This is because these elements of the cost of capital are related. Higher debt ratios can have an increasing effect on the cost of debt and equity (though sometimes a decreasing effect on the overall cost of capital to a certain point). I will discuss my adjustments regarding the individual components of the cost of capital in the following sections.

---

[40] OCA Exhibit DJG-16.

Q. What is your adjusted cost of capital for the Borough?

A. The following table summarizes my cost of capital adjustment for the Borough.[41]

Figure 16:
Cost of Capital Adjustment

Capital Component	Proposed Ratio	Cost Rate	After-Tax Rate	Weighted Cost
Long Term Debt	49%	4.8%	3.4%	1.70%
Equity	51%	6.0%	6.0%	3.04%
Total	100%			4.74%

The capital composition and rates contemplated in this calculation produce a cost of capital estimate of 4.74%. This is the figure I used in the discount rate of my discounted cash flow adjustment for the Borough.[42]

Q. How does your cost of capital adjustment compare to the UVEs' cost of capital estimates?

A. Mr. Walker estimates a range for the cost of capital of 5.95% - 7.16%.[43] Mr. Weinert estimates a cost of capital of 7.96%.[44] Thus, my adjusted cost of capital is less than the estimate of both UVEs. The differences in our cost of capital estimates stem from the differences between the various components of the cost of capital – primarily the cost of equity and capital structure, which are further discussed below.

---

[41] *See* OCA Exhibit DJG-17.

[42] *See* OCA Exhibit DJG-15.

[43] Appendix A-5.2, Gannett Fleming Fair Market Value Appraisal, pp. 28-29.

[44] Appendix A-14-b, Direct Testimony of Jerome C. Weinert, p. 6.

C. Cost of Equity

Q. Describe the cost of equity.

A. The cost of equity refers to the required return on equity expected from a company's equity investor based on the risk inherent in that investment. The required return from the investors' perspective is synonymous with the *cost* from the company's perspective. Unlike the known, contractual and embedded cost of debt, there is not any explicitly quantifiable "cost" of equity. Instead, the cost of equity must be estimated through various financial models. The two most widely used financial models to estimate the cost of equity (particularly in regulatory proceedings) is the DCF Model and the Capital Asset Pricing Model (the "CAPM"). I applied each of these models to the same proxy group in order to calculate my adjustment to the Borough's cost of equity.

1. DCF Analysis

Q. Describe the inputs to the DCF Model.

A. There are three primary inputs in the DCF Model: (1) stock price; (2) dividend; and (3) the long-term growth rate. The stock prices and dividends are known inputs based on recorded data, while the growth rate projection must be estimated. The formula is presented as follows:

Equation 1:
Quarterly Approximation Discounted Cash Flow Model

$$K = \left[\frac{d_0(1+g)^{1/4}}{P_0} + (1+g)^{1/4}\right]^4 - 1$$

where: K = *discount rate / required return*
d_0 = *current quarterly dividend per share*
P_0 = *stock price*
g = *expected growth rate of future dividends*

I discuss each of these inputs separately below. Further details regarding the theories of the DCF Model are discussed in Appendix B.

Q. How did you determine the stock price input of the DCF Model?

A. For the stock price (P_0), I used a 30-day average of stock prices for each company in the proxy group.[45] Analysts sometimes rely on average stock prices for longer periods (e.g., 60, 90, or 180 days). According to the efficient market hypothesis, however, markets reflect all relevant information available at a particular time, and prices adjust instantaneously to the arrival of new information.[46] Past stock prices, in essence, reflect outdated information. The DCF Model used in utility rate cases is a derivation of the dividend discount model, which is used to determine the current value of an asset. Thus, according to the dividend discount model and the efficient market hypothesis, the value for the "P_0" term in the DCF Model should technically be the current stock price, rather than an average.

---

[45] OCA Exhibit DJG-19.

[46] *See* Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, Vol. 25, No. 2 The Journal of Finance 383 (1970).

Q. Why did you use a 30-day average for the current stock price input?

A. Using a short-term average of stock prices for the current stock price input adheres to market efficiency principles while avoiding any irregularities that may arise from using a single current stock price. In the context of a utility rate proceeding there is a significant length of time from when an application is filed, and testimony is due. Choosing a current stock price for one particular day could raise a separate issue concerning which day was chosen to be used in the analysis. In addition, a single stock price on a particular day may be unusually high or low. It is arguably ill-advised to use a single stock price in a model that is ultimately used to set rates for several years, especially if a stock is experiencing volatility. Thus, it is preferable to use a short-term average of stock prices, which represents a good balance between adhering to well-established principles of market efficiency while avoiding any unnecessary contentions that may arise from using a single stock price on a given day. The stock prices I used in my DCF analysis are based on 30-day averages of adjusted closing stock prices for each company in the proxy group.[47]

Q. Describe how you determined the dividend input of the DCF Model.

A. The dividend term in the Quarterly Approximation DCF Model is the current quarterly dividend per share (d_0). I obtained the most recent quarterly dividend paid for each proxy company.[48] The Quarterly Approximation DCF Model assumes that the company increases its dividend payments each quarter. Thus, the model assumes that each quarterly

---

[47] Exhibit DJG-19. Adjusted closing prices, rather than actual closing prices, are ideal for analyzing historical stock prices. The adjusted price provides an accurate representation of the firm's equity value beyond the mere market price because it accounts for stock splits and dividends.

[48] Exhibit DJG-4. Nasdaq Dividend History, http://www.nasdaq.com/quotes/dividend-history.aspx.

dividend is greater than the previous one by $(1 + g)^{0.25}$. This expression could be described as the dividend quarterly growth rate, where the term "g" is the growth rate and the exponential term "0.25" signifies one quarter of the year.

Q. Summarize the growth rate input in the DCF Model.

A. The most critical input in the DCF Model is the growth rate. Unlike the stock price and dividend inputs, the growth rate input (g) must be estimated. As a result, the growth rate is often the most contentious DCF input in utility rate cases. The DCF model used in this case is based on the constant growth valuation model. Under this model, a stock is valued by the present value of its future cash flows in the form of dividends. Before future cash flows are discounted by the cost of equity, however, they must be "grown" into the future by a long-term growth rate. As stated above, one of the inherent assumptions of this model is that these cash flows in the form of dividends grow at a constant rate forever. Thus, the growth rate term in the constant growth DCF model is often called the "constant," "stable," or "terminal" growth rate. For young, high-growth firms, estimating the growth rate to be used in the model can be especially difficult, and may require the use of multi-stage growth models. For mature, low-growth firms such as utilities, however, estimating the terminal growth rate is more transparent.

Q. Is it true that the terminal growth rate cannot exceed the growth rate of the economy, especially for a regulated utility company?

A. Yes. A fundamental concept in finance is that no firm can grow forever at a rate higher than the growth rate of the economy in which it operates.[49] Thus, the terminal growth rate used in the DCF Model should not exceed the aggregate economic growth rate. This is especially true when the DCF Model is conducted on public utilities because these firms have defined service territories. As stated by Dr. Damodaran: "[i]f a firm is a purely domestic company, either because of internal constraints . . . or external constraints (such as those imposed by a government), the growth rate in the domestic economy will be the limiting value."[50]

In fact, it is reasonable to assume that a regulated utility would grow at a rate that is less than the U.S. economic growth rate. Unlike competitive firms, which might increase their growth by launching a new product line, franchising, or expanding into new and developing markets, utility operating companies with defined service territories cannot partake in any of these growth opportunities. Gross Domestic Product ("GDP") is one of the most widely used measures of economic production and is used to measure aggregate economic growth. According to the Congressional Budget Office's Budget Outlook, the long-term forecast for nominal U.S. GDP growth is about 4%, which includes an inflation rate of 2%.[51] For mature companies in mature industries, such as utility companies, the

---

[49] *See* Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 306 (3rd ed., John Wiley & Sons, Inc. 2012).

[50] Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 306 (3rd ed., John Wiley & Sons, Inc. 2012).

[51] Congressional Budget Office Long-Term Budget Outlook, https://www.cbo.gov/publication/51580.

terminal growth rate will likely fall between the expected rate of inflation and the expected rate of nominal GDP growth. Thus, the Borough's terminal growth rate is between 2% and 4%.

Q. Is it reasonable to assume that the terminal growth rate will not exceed the risk-free rate?

A. Yes. In the long term, the risk-free rate will converge on the growth rate of the economy. For this reason, financial analysts sometimes use the risk-free rate for the terminal growth rate value in the DCF model.[52] I discuss the risk-free rate in further detail later in this testimony.

Q. Describe the growth rate input used in your DCF Model.

A. The following chart in the figure below shows three of the long-term growth determinants discussed in this section.[53]

---

[52] Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 307 (3rd ed., John Wiley & Sons, Inc. 2012).

[53] OCA Exhibit DJG-20.

Figure 17:
Terminal Growth Rate Determinants

Terminal Growth Determinants	Rate
Nominal GDP	3.9%
Real GDP	1.9%
Inflation	2.0%
Risk Free Rate	1.5%
Highest	**3.9%**

For the long-term growth rate in my DCF model, I selected the maximum, reasonable long-term growth rate of 3.9%, which is consistent with my cost of equity analysis in many other regulatory proceedings.

Q. How do your adjustments to the DCF Model in this case compare with the approach used by the UVEs?

A. One of the primary differences between the UVEs' DCF Models and my adjustments relate to the time period over which we are discounting the assumed cash flows. In the vast majority of utility rate cases, expert witnesses who apply the DCF Model to estimate the utility's cost of capital use the constant growth form of the DCF Model. That is, annual cash flows are assumed to be consistent, and one growth rate is applied to those cash flows. Very rarely do I see cost of capital witnesses use multi-stage DCF Models. In this case, the UVEs have considered cash flows over 20 years. Again, my application of the DCF Model in this case to arrive at my adjustments to the UVEs' income approach valuations is consistent with my approach to the DCF Model in other cases.

Q. Please describe the final results of your DCF Model.

A. My DCF Model cost of equity estimate for the Borough is 6.0%.[54] This is based on the average DCF result for each company in the proxy group.

2. CAPM Analysis

Q. Describe the CAPM.

A. The CAPM is a market-based model founded on the principle that investors expect higher returns for incurring additional risk.[55] The CAPM estimates this expected return. The various assumptions, theories, and equations involved in the CAPM are discussed further in Appendix C. The CAPM is a useful model because it directly considers the amount of risk inherent in a business. In my opinion, it is the strongest of the models usually presented in rate cases and Section 1329 FMV proceedings because, unlike the DCF Model, the CAPM directly measures the most important component of a fair rate of return analysis – risk.

Q. Describe the inputs for the CAPM.

A. The basic CAPM equation requires only three inputs to estimate the cost of equity: (1) the risk-free rate; (2) the beta coefficient; and (3) the equity risk premium. Here is the CAPM formula:

---

[54] OCA Exhibit DJG-18.

[55] William F. Sharpe, *A Simplified Model for Portfolio Analysis* 277–93 (Management Science IX 1963).

Equation 2:
Basic CAPM

Cost of Equity = Risk-free Rate + (Beta × Equity Risk Premium)

Each input is discussed separately below.

A. The Risk-Free Rate

Q. Explain the risk-free rate.

A. The first term in the CAPM is the risk-free rate (R_F). The risk-free rate is simply the level of return investors can achieve without assuming any risk. The risk-free rate represents the bare minimum return that any investor would require on a risky asset. Even though no investment is technically void of risk, investors often use U.S. Treasury securities to represent the risk-free rate because they accept that those securities essentially contain no default risk. The Treasury issues securities with different maturities, including short-term Treasury Bills, intermediate-term Treasury Notes, and long-term Treasury Bonds.

Q. Is it preferable to use the yield on long-term Treasury bonds for the risk-free rate in the CAPM?

A. Yes. In valuing an asset, investors estimate cash flows over long periods of time. Common stock is viewed as a long-term investment, and the cash flows from dividends are assumed to last indefinitely. Thus, short-term Treasury Bill yields are rarely used in the CAPM to represent the risk-free rate. Short-term rates are subject to greater volatility and thus can lead to unreliable estimates. Instead, long-term Treasury bonds are usually used to represent the risk-free rate in the CAPM. I considered a 30-day average of daily Treasury

yield curve rates on 30-year Treasury Bonds in my risk-free rate estimate, which resulted in a risk-free rate of 1.51%.[56]

Q. How is the beta coefficient used in this model?

A. As discussed above, beta represents the sensitivity of a given security to movements in the overall market. The CAPM states that in efficient capital markets, the expected risk premium on each investment is proportional to its beta. Recall that a security with a beta greater (or less) than one is more (or less) risky than the market portfolio. An index such as the S&P 500 Index is used as a proxy for the market portfolio. The historical betas for publicly traded firms are published by various institutional analysts. Beta may also be calculated through a linear regression analysis, which provides additional statistical information about the relationship between a single stock and the market portfolio. As discussed above, beta also represents the sensitivity of a given security to the market as a whole. The market portfolio of all stocks has a beta equal to one. Stocks with betas greater than 1.0 are relatively more sensitive to market risk than the average stock. For example, if the market increases (or decreases) by 1.0%, a stock with a beta of 1.5 will, on average, increase (or decrease) by 1.5%. In contrast, stocks with betas of less than 1.0 are less sensitive to market risk. For example, if the market increases (or decreases) by 1.0%, a stock with a beta of 0.5 will, on average, only increase (or decrease) by 0.5%.

[56] OCA Exhibit DJG-21.

Q. Describe the source for the betas you used in your CAPM analysis.

A. I used betas recently published by Value Line Investment Survey. The beta for each proxy company is less than 1.0.[57] Thus, we have an objective measure to prove the well-known concept that utility stocks are less risky than the average stock in the market.

Q. Describe the equity risk premium.

A. The final term of the CAPM is the equity risk premium ("ERP"), which is the required return on the market portfolio less the risk-free rate ($R_M - R_F$). In other words, the ERP is the level of return investors expect above the risk-free rate in exchange for investing in risky securities. To estimate the ERP, I considered expert surveys, an implied ERP calculation, and the ERP published by a third-party financial advising firm.

Q. Describe the expert survey approach to estimating the ERP.

A. As its name implies, the expert survey approach to estimating the ERP involves conducting a survey of experts including professors, analysts, chief financial officers, and other executives around the country and asking them what they think the ERP is. Graham and Harvey have performed such a survey regularly since 1996. In their 2018 survey, they found that experts around the country believe the current ERP is only 4.4%.[58] The IESE Business School conducts a similar expert survey. Their 2020 expert survey reported an average ERP of 5.6%.[59]

---

[57] *See* OCA Exhibit DJG-18.

[58] John R. Graham and Campbell R. Harvey, *The Equity Risk Premium in 2018*, at 3 (Fuqua School of Business, Duke University 2014), copy available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3151162.

[59] Pablo Fernandez, Pablo Linares & Isabel F. Acin, *Market Risk Premium used in 171 Countries in 2016: A Survey with 6,932 Answers*, at 3 (IESE Business School 2015), copy available at http://www.valumonics.com/wp-content/uploads/2017/06/Discount-rate-Pablo-Fern%C3%A1ndez.pdf. IESE Business School is the graduate

Q. Describe the implied ERP approach.

A. The third method of estimating the ERP is arguably the best. The implied ERP relies on the stable growth model proposed by Gordon, often called the "Gordon Growth Model," which is a basic stock valuation model widely used in finance for many years.[60] This model is a mathematical derivation of the DCF Model. In fact, the underlying concept in both models is the same: the current value of an asset is equal to the present value of its future cash flows. Instead of using this model to determine the discount rate of one company, we can use it to determine the discount rate for the entire market by substituting the inputs of the model. Specifically, instead of using the current stock price (P_0), we will use the current value of the S&P 500 (V_{500}). Similarly, instead of using the dividends of a single firm, we will consider the dividends paid by the entire market. Additionally, we should consider potential dividends. In other words, stock buybacks should be considered in addition to paid dividends, as stock buybacks represent another way for the firm to transfer free cash flow to shareholders. Focusing on dividends alone without considering stock buybacks could understate the cash flow component of the model, and ultimately understate the implied ERP. The market dividend yield plus the market buyback yield gives us the gross cash yield to use as our cash flow in the numerator of the discount model. This gross cash yield is increased each year over the next five years by the growth rate. These cash flows must be discounted to determine their present value. The discount rate

---

business school of the University of Navarra. IESE offers Master of Business Administration (MBA), Executive MBA and Executive Education programs. IESE is consistently ranked among the leading business schools in the world.

[60] Myron J. Gordon and Eli Shapiro, *Capital Equipment Analysis: The Required Rate of Profit* 102–10 (Management Science Vol. 3, No. 1 Oct. 1956).

in each denominator is the risk-free rate (R_F) plus the discount rate (K). The following formula shows how the implied return is calculated. Since the current value of the S&P is known, we can solve for K: the implied market return.[61]

Equation 3:
Implied Market Return

$$V_{500} = \frac{CY_1(1+g)^1}{(1+R_F+K)^1} + \frac{CY_2(1+g)^2}{(1+R_F+K)^2} + \cdots + \frac{CY_5(1+g)^5 + TV}{(1+R_F+K)^5}$$

where:

V_{500}	=	*current value of index (S&P 500)*
$CY_{1\text{-}5}$	=	*average cash yield over last five years (includes dividends and buybacks)*
g	=	*compound growth rate in earnings over last five years*
R_F	=	*risk-free rate*
K	=	*implied market return (this is what we are solving for)*
TV	=	*terminal value* $= CY_5 (1+R_F) / K$

The discount rate is called the "implied" return here because it is based on the current value of the index as well as the value of free cash flow to investors projected over the next five years. Thus, based on these inputs, the market is "implying" the expected return; or in other words, based on the current value of all stocks (the index price), and the projected value of future cash flows, the market is telling us the return expected by investors for investing in the market portfolio. After solving for the implied market return (K), we simply subtract the risk-free rate from it to arrive at the implied ERP.

Equation 4:
Implied Equity Risk Premium

$$Implied\ Expected\ Market\ Return - R_F = Implied\ ERP$$

[61] *See* Exhibit DJG-9 for detailed calculation.

Q. Discuss the results of your implied ERP calculation.

A. After collecting data for the index value, operating earnings, dividends, and buybacks for the S&P 500 over the past six years, I calculated the dividend yield, buyback yield, and gross cash yield for each year. I also calculated the compound annual growth rate (g) from operating earnings. I used these inputs, along with the risk-free rate and current value of the index to calculate a current expected return on the entire market of 7.5%. I subtracted the risk-free rate to arrive at the implied equity risk premium of 6.0%.[62] Dr. Damodaran, one of the world's leading experts on the ERP, promotes the implied ERP method discussed above. He calculates monthly and annual implied ERPs with this method and publishes his results. Dr. Damodaran's highest ERP estimate for October 2020 using several implied ERP variations was 5.8%.[63]

Q. What are the results of your final ERP estimate?

A. For the final ERP estimate I used in my CAPM analysis, I considered the results of the ERP surveys along with the implied ERP calculations and the ERP reported by Duff & Phelps.[64] The results are presented in the following figure:

---

[62] OCA Exhibit DJG-22.

[63] Aswath Damodaran, *Implied Equity Risk Premium Update*, DAMODARAN ONLINE (last visited Nov. 2, 2020) http://pages.stern.nyu.edu/~adamodar/.

[64] OCA Exhibit DJG-23.

Figure 18:
Equity Risk Premium Results

IESE Business School Survey	5.6%
Graham & Harvey Survey	4.4%
Duff & Phelps Report	6.0%
Damodaran (highest)	5.8%
Garrett	6.0%
Average	**5.5%**
Highest	**6.0%**

I selected the highest ERP estimate of 6.0% to use in my CAPM analysis, which is consistent with my approach in many other regulatory proceedings.

Q. Please explain the final results of your CAPM analysis.

A. Using the inputs for the risk-free rate, beta coefficient, and ERP discussed above, I estimate that Bethlehem's CAPM cost of equity is 6.0%.[65]

Q. Please explain how your adjusted CAPM results compare with the UVEs' CAPM results.

A. The UVEs' CAPM cost of equity estimates were notably higher than my adjusted estimate. Specifically, Mr. Weinert estimates a CAPM cost of equity of 9.67%.[66] Mr. Walker estimates a CAPM cost of equity range of 7.01% - 8.61%.[67] My lower CAPM adjustment

---

[65] OCA Exhibit DJG-18.

[66] *See* Appendix A-5.1, AUS Consultants Fair Market Value Appraisal.

[67] Borough of Royersford Statement No. 2, Direct Testimony of Harold Walker, III, p. 20, line 13.

is primarily driven by my ERP and risk-free rate inputs discussed above. Again, my approach with regard to these adjustments is consistent with my approach in many other rate case proceedings.

Q. Given the results of your DCF and CAPM analyses, what is your estimated cost of equity for the Borough?

A. In this case, it is quite remarkable that the CAPM and DCF Model produced identical cost of equity estimates – 6.0%. This is especially noteworthy considering that the two models consider very different inputs. Again the DCF Model considers stock prices, dividends, and a stable growth rate, whereas the CAPM considers the risk-free rate, beta, and the ERP. In my opinion, the fact that these two models produced the same results further adds to the reliability of the models. Typically, I consider an average of the CAPM and DCF Model when estimating the cost of equity in utility regulatory proceedings; in this case, of course, the average is 6.0%.[68]

Q. Please summarize your adjustment to Gannett Fleming's AUS Consultants' income approach valuations.

A. Based on my cost of equity and the other cost of capital components discussed above, my adjustments to the UVEs' appraisals result in an income approach of $8.1 million.[69] My adjustment is $5.9 million less than Gannett Fleming's valuation of $13.9 million, and it is $6.4 million less than AUS Consultants' valuation of $14.5 million.[70]

---

[68] OCA Exhibit DJG-18.

[69] OCA Exhibit DJG-2 and OCA Exhibit 15.

[70] OCA Exhibit DJG-2.

D. Cost of Debt and Capital Structure

Q. Please describe your adjustments to the cost of debt and capital structure.

A. As discussed above, the cost of debt and capital structure are also components that comprise the overall cost of capital. Since I used the utility proxy group to estimate the cost of equity, I used the same group to estimate the cost of debt and capital structure. In addition, I relied on the same source for the information – Value Line Investment Survey. To estimate the cost of debt, I considered the interest expense and long-term debt reported for each of the proxy companies.[71] To estimate the capital structure, I considered the long-term debt ratios for each proxy company.[72] Again, I considered substantially the same proxy group of companies as both UVEs as well as their consideration of Value Line as a source for some of the pertinent financial data used in their analyses, including the debt ratios. My average, adjusted cost of debt (pre-tax) and debt ratio for the proxy group is 4.8% and 49%, respectively.[73]

Q. How does your capital structure adjustment compare with the capital structures used by the UVEs?

A. Mr. Walker utilized a debt ratio of only 24.4%.[74] Similarly, Mr. Weinert utilized a debt ratio of only 26%.[75] These debt ratios are significantly lower than the average reported

---

[71] *See id.*

[72] *Id.*

[73] OCA Exhibit DJG-18.

[74] Borough of Royersford Statement No. 2, Direct Testimony of Harold Walker, III, p. 20, line 11.

[75] *See* Appendix A-5.1, AUS Consultants Fair Market Value Appraisal.

debt ratio of the proxy group (49%), which is what I based my capital structure adjustment on.

VI. CONCLUSION AND RECOMMENDATION

Q. Please summarize the key points of your testimony.

A. I reviewed the market, cost, and income valuations proposed by each appraisal. Certain assumptions made by each UVE caused the results of their valuations under each approach to be unreasonably high. Applying reasonable adjustments to their models, I estimated a reasonable fair market value for acquisition of the Borough system.

Q. What is your recommendation to the Commission?

A. If the Commission approves the acquisition, the Commission should adopt my proposed adjustments to the appraisals. Also, if the Commission approves the acquisition, I recommend a ratemaking rate base of $9,957,330 for the Borough's system, as outlined in OCA Exhibit DJG-2, rather than the $13,000,000 proposed by PAWC. Additionally, the Commission should only approve the acquisition if approval is conditioned upon PAWC providing a separate Cost of Service Study in the first base rate case which includes the Borough's assets, in order to separately identify the cost of serving the Borough wastewater system. Finally, when PAWC modifies its LTIIP to include the Borough, any Borough-related projects reflected in the revised LTIIP should be in addition to, and not reprioritize, any capital improvements that PAWC was already committed to undertake for existing customers.

Q. Does this conclude your testimony?

A. Yes. To the extent I did not specifically address a particular issue does not constitute my agreement with such issue. I reserve the right to modify or supplement my testimony if additional information is received.

APPENDIX A:

IOWA CURVES

Early work in the analysis of the service life of industrial property was based on models that described the life characteristics of human populations.[76] This explains why the word "mortality" is often used in the context of depreciation analysis. In fact, a group of property installed during the same accounting period is analogous to a group of humans born during the same calendar year. Each period the group will incur a certain fraction of deaths / retirements until there are no survivors. Describing this pattern of mortality is part of actuarial analysis and is regularly used by insurance companies to determine life insurance premiums. The pattern of mortality may be described by several mathematical functions, particularly the survivor curve and frequency curve. Each curve may be derived from the other so that if one curve is known, the other may be obtained. A survivor curve is a graph of the percent of units remaining in service expressed as a function of age.[77] A frequency curve is a graph of the frequency of retirements as a function of age. Several types of survivor and frequency curves are illustrated in the figures below.

1. Development

The survivor curves used by analysts today were developed over several decades from extensive analysis of utility and industrial property. In 1931, Edwin Kurtz and Robley Winfrey used extensive data from a range of 65 industrial property groups to create survivor curves

---

[76] *See* Frank K. Wolf & W. Chester Fitch, *Depreciation Systems* 276 (Iowa State University Press 1994).

[77] *Id.* at 23.

representing the life characteristics of each group of property.[78] They generalized the 65 curves into 13 survivor curve types and published their results in *Bulletin 103: Life Characteristics of Physical Property*. The 13 type curves were designed to be used as valuable aids in forecasting probable future service lives of industrial property. Over the next few years, Winfrey continued gathering additional data, particularly from public utility property, and expanded the examined property groups from 65 to 176.[79] This resulted in 5 additional survivor curve types for a total of 18 curves. In 1935, Winfrey published *Bulletin 125: Statistical Analysis of Industrial Property Retirements*. According to Winfrey, "[t]he 18 type curves are expected to represent quite well all survivor curves commonly encountered in utility and industrial practices."[80] These curves are known as the "Iowa curves" and are used extensively in depreciation analysis in order to obtain the average service lives of property groups. (Use of Iowa curves in actuarial analysis is further discussed in Appendix C.)

In 1942, Winfrey published *Bulletin 155: Depreciation of Group Properties*. In Bulletin 155, Winfrey made some slight revisions to a few of the 18 curve types, and published the equations, tables of the percent surviving, and probable life of each curve at five-percent intervals.[81] Rather than using the original formulas, analysts typically rely on the published tables containing the percentages surviving. This is because absent knowledge of the integration

---

[78] *Id.* at 34.

[79] *Id.*

[80] Robley Winfrey, *Bulletin 125: Statistical Analyses of Industrial Property Retirements* 85, Vol. XXXIV, No. 23 (Iowa State College of Agriculture and Mechanic Arts 1935).

[81] Robley Winfrey, Bulletin 155: Depreciation of Group Properties 121-28, Vol XLI, No. 1 (The Iowa State College Bulletin 1942); see also Wolf supra n. 1, at 305-38 (publishing the percent surviving for each Iowa curve, including "O" type curve, at one percent intervals).

technique applied to each age interval, it is not possible to recreate the exact original published table values. In the 1970s, John Russo collected data from over 2,000 property accounts reflecting observations during the period 1965 – 1975 as part of his Ph.D. dissertation at Iowa State. Russo essentially repeated Winfrey's data collection, testing, and analysis methods used to develop the original Iowa curves, except that Russo studied industrial property in service several decades after Winfrey published the original Iowa curves. Russo drew three major conclusions from his research:[82]

1. No evidence was found to conclude that the Iowa curve set, as it stands, is not a valid system of standard curves;

2. No evidence was found to conclude that new curve shapes could be produced at this time that would add to the validity of the Iowa curve set; and

3. No evidence was found to suggest that the number of curves within the Iowa curve set should be reduced.

Prior to Russo's study, some had criticized the Iowa curves as being potentially obsolete because their development was rooted in the study of industrial property in existence during the early 1900s. Russo's research, however, negated this criticism by confirming that the Iowa curves represent a sufficiently wide range of life patterns, and that though technology will change over time, the underlying patterns of retirements remain constant and can be adequately described by the Iowa curves.[83]

Over the years, several more curve types have been added to Winfrey's 18 Iowa curves. In 1967, Harold Cowles added four origin-modal curves. In addition, a square curve is sometimes

---

[82] *See* Wolf *supra* n. 1, at 37.

[83] *Id.*

used to depict retirements which are all planned to occur at a given age. Finally, analysts commonly rely on several "half curves" derived from the original Iowa curves. Thus, the term "Iowa curves" could be said to describe up to 31 standardized survivor curves.

2. Classification

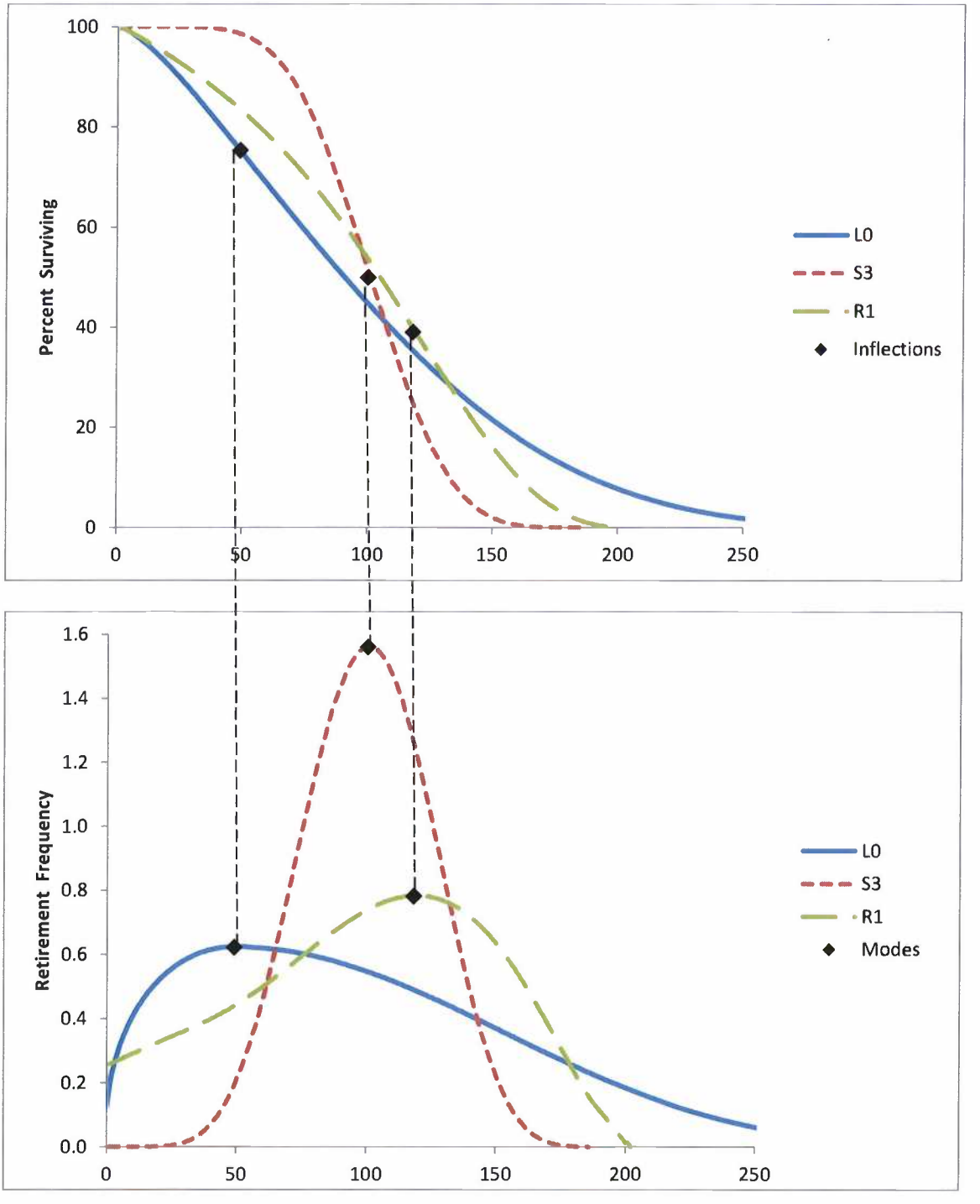
The Iowa curves are classified by three variables: modal location, average life, and variation of life. First, the mode is the percent life that results in the highest point of the frequency curve and the "inflection point" on the survivor curve. The modal age is the age at which the greatest rate of retirement occurs. As illustrated in the figure below, the modes appear at the steepest point of each survivor curve in the top graph, as well as the highest point of each corresponding frequency curve in the bottom graph.

The classification of the survivor curves was made according to whether the mode of the retirement frequency curves was to the left, to the right, or coincident with average service life. There are three modal "families" of curves: six left modal curves (L0, L1, L2, L3, L4, L5); five right modal curves (R1, R2, R3, R4, R5); and seven symmetrical curves (S0, S1, S2, S3, S4, S5, S6).[84] In the figure below, one curve from each family is shown: L0, S3 and R1, with average life at 100 on the x-axis. It is clear from the graphs that the modes for the L0 and R1 curves appear to the left and right of average life respectively, while the S3 mode is coincident with average life.

---

[84] In 1967, Harold A. Cowles added four origin-modal curves known as "O type" curves. There are also several "half" curves and a square curve, so the total amount of survivor curves commonly called "Iowa" curves is about 31 (see NARUC supra n. 10, at 68).

Figure 19:
Modal Age Illustration



The second Iowa curve classification variable is average life. The Iowa curves were designed using a single parameter of age expressed as a percent of average life instead of actual age. This was necessary for the curves to be of practical value. As Winfrey notes:

> Since the location of a particular survivor on a graph is affected by both its span in years and the shape of the curve, it is difficult to classify a group of curves unless one of these variables can be controlled. This is easily done by expressing the age in percent of average life."[85]

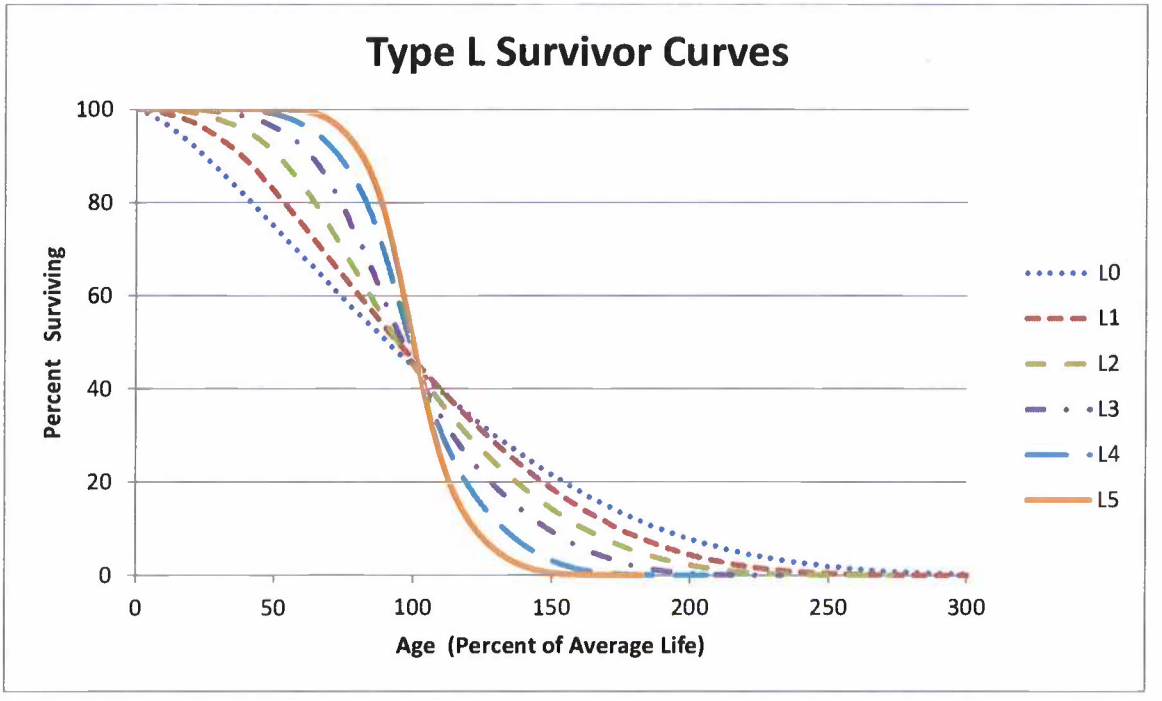
Because age is expressed in terms of percent of average life, any particular Iowa curve type can be modified to forecast property groups with various average lives.

The third variable, variation of life, is represented by the numbers next to each letter. A lower number (e.g., L1) indicates a relatively low mode, large variation, and large maximum life; a higher number (e.g., L5) indicates a relatively high mode, small variation, and small maximum life. All three classification variables – modal location, average life, and variation of life – are used to describe each Iowa curve. For example, a 13-L1 Iowa curve describes a group of property with a 13-year average life, with the greatest number of retirements occurring before (or to the left of) the average life, and a relatively low mode. The graphs below show these 18 survivor curves, organized by modal family.

---

[85] Winfrey *supra* n. 75, at 60.

Figure 20:
Type L Survivor and Frequency Curves



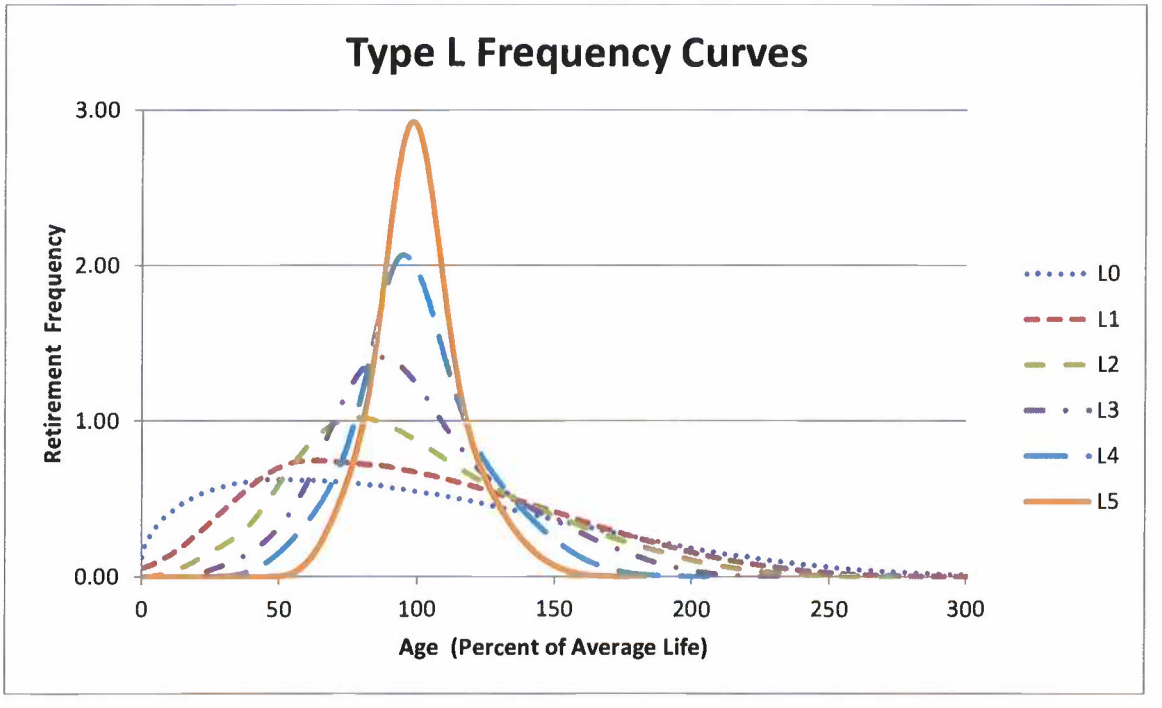
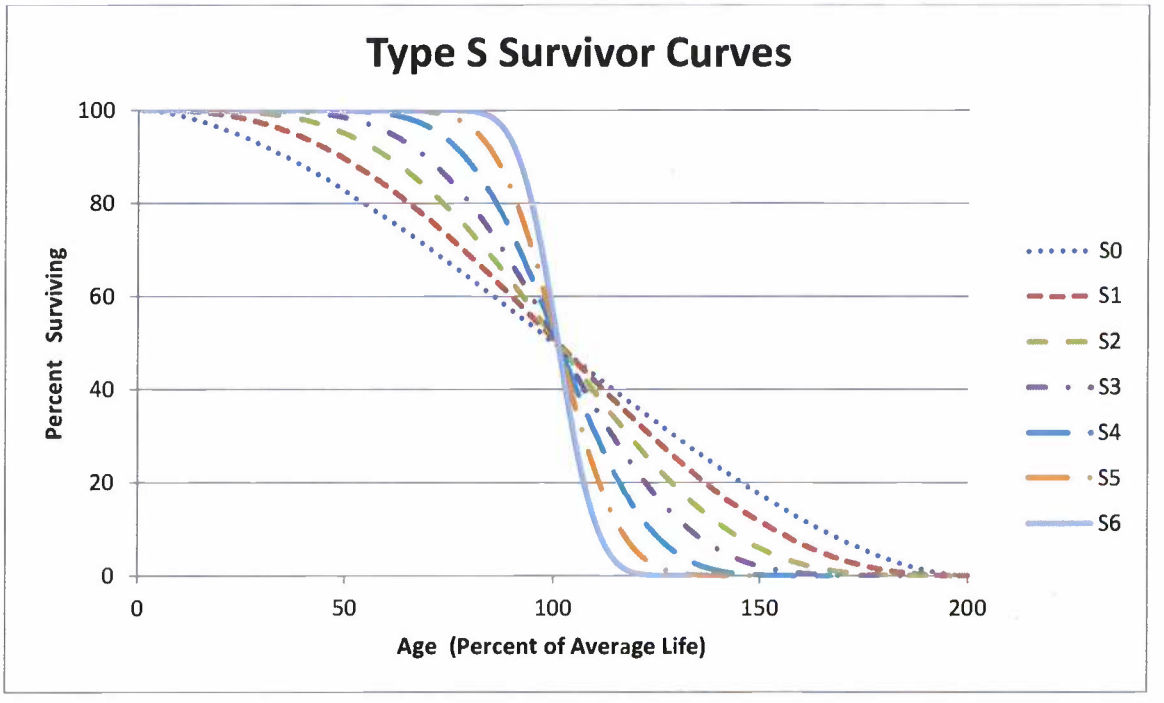


Figure 21:
Type S Survivor and Frequency Curves



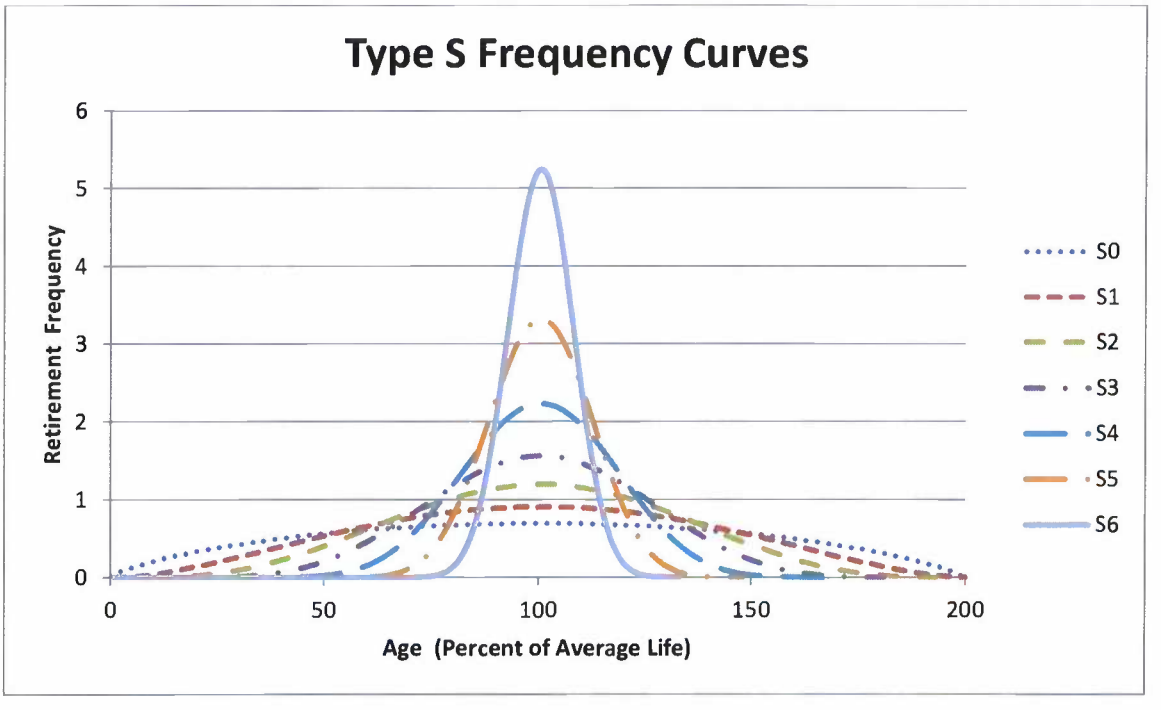
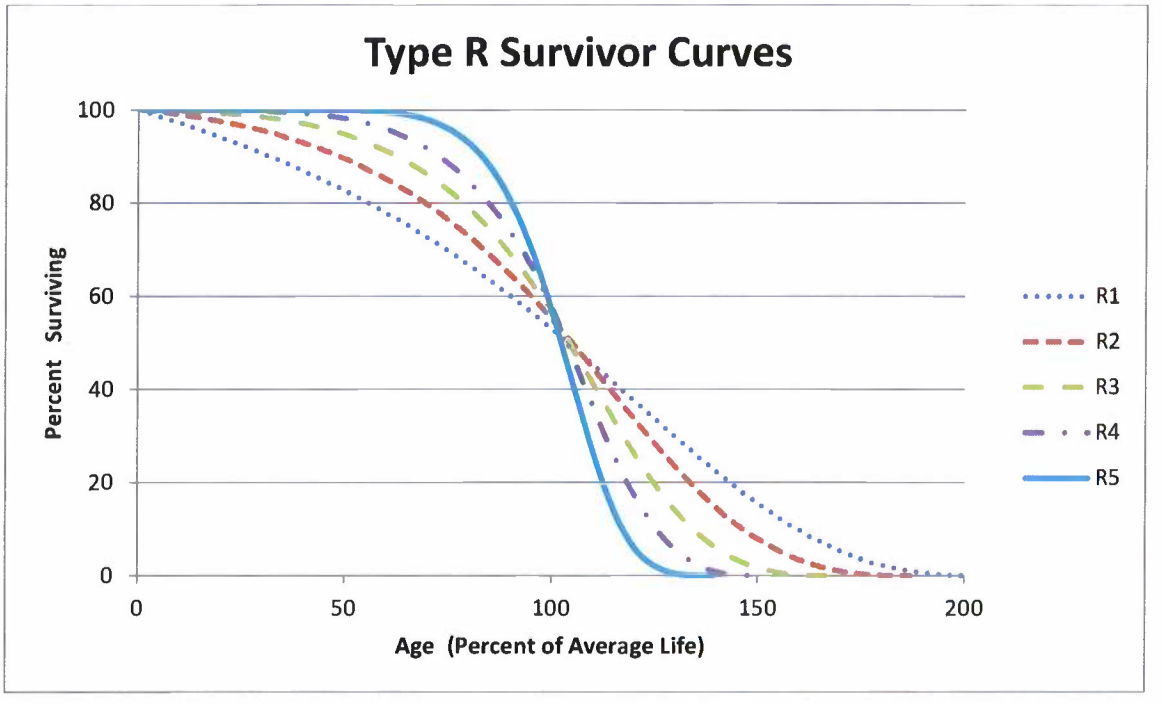
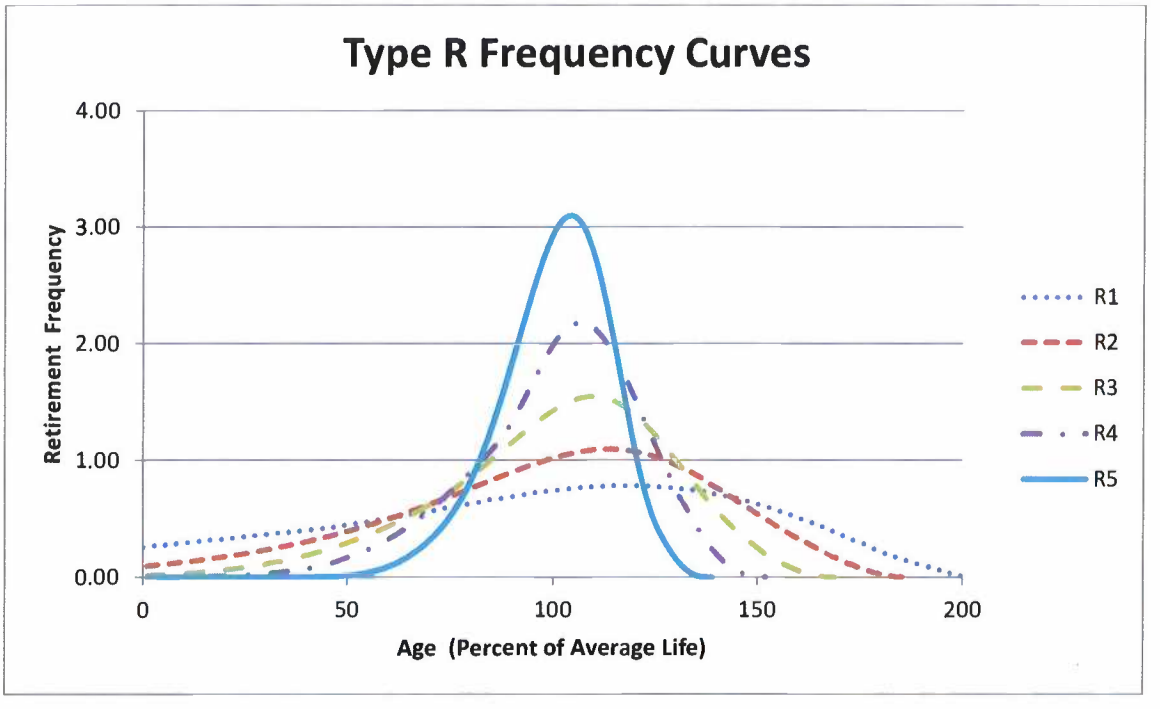


Figure 22:
Type R Survivor and Frequency Curves





As shown in the graphs above, the modes for the L family frequency curves occur to the left of average life (100% on the x-axis), while the S family modes occur at the average, and the R family modes occur after the average.

3. Types of Lives

Several other important statistical analyses and types of lives may be derived from an Iowa curve. These include: 1) average life; 2) realized life; 3) remaining life; and 4) probable life. The figure below illustrates these concepts. It shows the frequency curve, survivor curve, and probable life curve. Age M_x on the x-axis represents the modal age, while age AL_x represents the average age. Thus, this figure illustrates an "L type" Iowa curve since the mode occurs before the average.[86]

First, average life is the area under the survivor curve from age zero to maximum life. Because the survivor curve is measured in percent, the area under the curve must be divided by 100% to convert it from percent-years to years. The formula for average life is as follows:[87]

Equation 5:
Average Life

$$Average\ Life\ = \frac{Area\ Under\ Survivor\ Curve\ from\ Age\ 0\ to\ Max\ Life}{100\%}$$

Thus, average life may not be determined without a complete survivor curve. Many property groups being analyzed will not have experienced full retirement. This results in a "stub" survivor

[86] From age zero to age M_x on the survivor curve, it could be said that the percent surviving from this property group is decreasing at an increasing rate. Conversely, from point M_x to maximum on the survivor curve, the percent surviving is decreasing at a decreasing rate.

[87] *See* NARUC *supra* n. 10, at 71.

curve. Iowa curves are used to extend stub curves to maximum life in order for the average life calculation to be made (see Appendix C).

Realized life is similar to average life, except that realized life is the average years of service experienced to date from the vintage's original installations.[88] As shown in the figure below, realized life is the area under the survivor curve from zero to age RL_X. Likewise, unrealized life is the area under the survivor curve from age RL_X to maximum life. Thus, it could be said that average life equals realized life plus unrealized life.

Average remaining life represents the future years of service expected from the surviving property.[89] Remaining life is sometimes referred to as "average remaining life" and "life expectancy." To calculate average remaining life at age x, the area under the estimated future portion of the survivor curve is divided by the percent surviving at age x (denoted S_X). Thus, the average remaining life formula is:

Equation 6:
Average Remaining Life

$$Average\ Remaining\ Life\ = \frac{Area\ Under\ Survivor\ Curve\ from\ Age\ x\ to\ Max\ Life}{S_X}$$

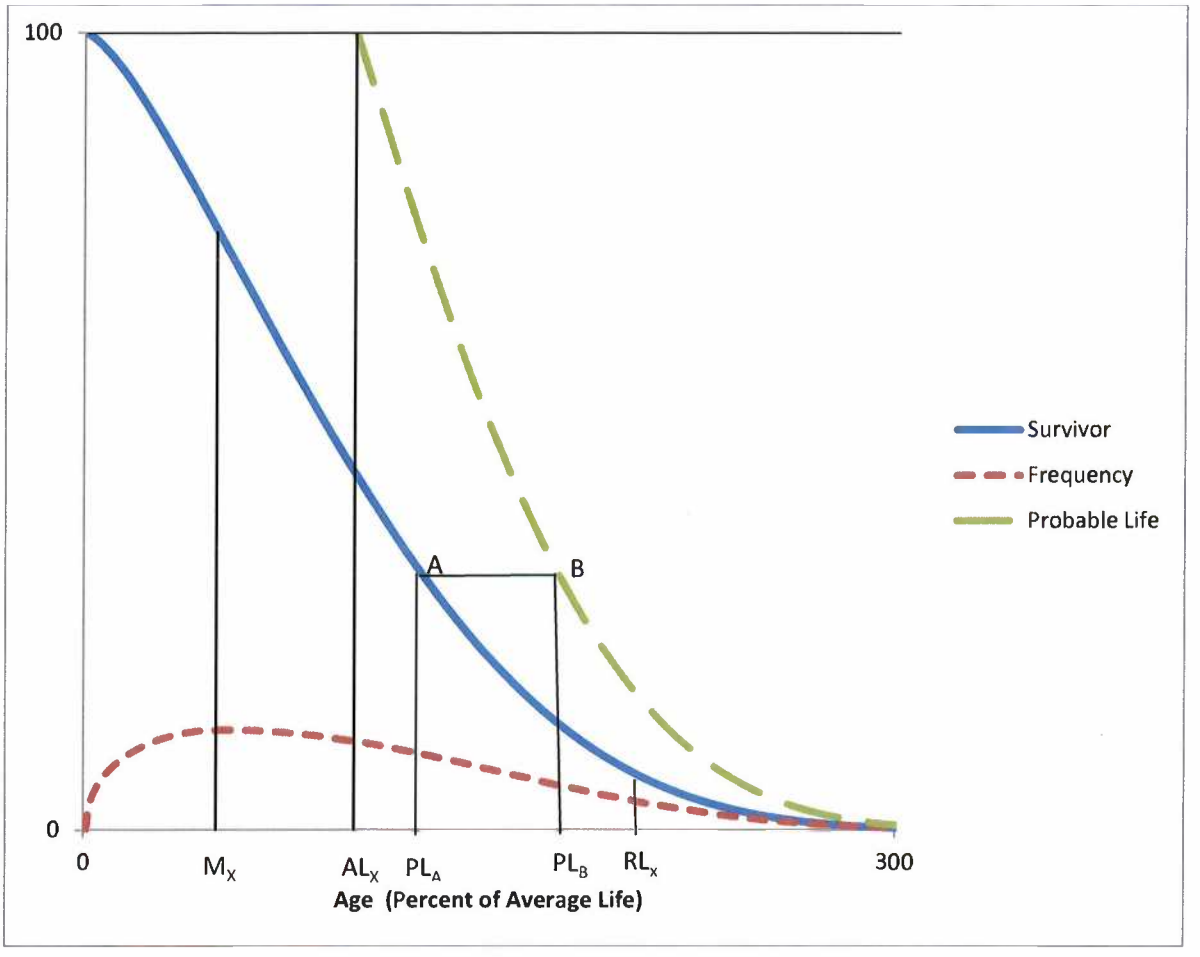
It is necessary to determine average remaining life to calculate the annual accrual under the remaining life technique.

---

[88] *Id.* at 73.

[89] *Id.* at 74.

Figure 23:
Iowa Curve Derivations



Finally, the probable life may also be determined from the Iowa curve. The probable life of a property group is the total life expectancy of the property surviving at any age and is equal to the remaining life plus the current age.[90] The probable life is also illustrated in this figure. The probable life at age PL_A is the age at point PL_B. Thus, to read the probable life at age PL_A, see the corresponding point on the survivor curve above at point "A," then horizontally to point "B"

[90] Wolf *supra* n. 1, at 28.

on the probable life curve, and back down to the age corresponding to point "B." It is no coincidence that the vertical line from AL_X connects at the top of the probable life curve. This is because at age zero, probable life equals average life.

APPENDIX B:

DISCOUNTED CASH FLOW MODEL THEORY

The Discounted Cash Flow ("DCF") Model is based on a fundamental financial model called the "dividend discount model," which maintains that the value of a security is equal to the present value of the future cash flows it generates. Cash flows from common stock are paid to investors in the form of dividends. There are several variations of the DCF Model. In its most general form, the DCF Model is expressed as follows:[91]

Equation 7:
General Discounted Cash Flow Model

$$P_0 = \frac{D_1}{(1+k)} + \frac{D_2}{(1+k)^2} + \cdots + \frac{D_n}{(1+k)^n}$$

where: P_0 = *current stock price*
$D_1 \ldots D_n$ = *expected future dividends*
k = *discount rate / required return*

The General DCF Model would require an estimation of an infinite stream of dividends. Because this would be impractical, analysts use more feasible variations of the General DCF Model, which are discussed further below.

The DCF Models rely on the following four assumptions:[92]

1. Investors evaluate common stocks in the classical valuation framework; that is, they trade securities rationally at prices reflecting their perceptions of value;

2. Investors discount the expected cash flows at the same rate (K) in every future period;

---

[91] *See* Zvi Bodie, Alex Kane & Alan J. Marcus, *Essentials of Investments* 410 (9th ed., McGraw-Hill/Irwin 2013).

[92] *See* Roger A. Morin, *New Regulatory Finance* 252 (Public Utilities Reports, Inc. 2006) (1994).

3. The K obtained from the DCF equation corresponds to that specific stream of future cash flows alone; and

4. Dividends, rather than earnings, constitute the source of value.

The General DCF can be rearranged to make it more practical for estimating the cost of equity. Regulators typically rely on some variation of the Constant Growth DCF Model, which is expressed as follows:

Equation 8:
Constant Growth Discounted Cash Flow Model

$$K = \frac{D_1}{P_0} + g$$

where:	K	=	*discount rate / required return on equity*
	D_1	=	*expected dividend per share one year from now*
	P_0	=	*current stock price*
	g	=	*expected growth rate of future dividends*

Unlike the General DCF Model, the Constant Growth DCF Model solves for the required return (K) directly. In addition, by assuming that dividends grow at a constant rate, the dividend stream from the General DCF Model may be substituted with a term representing the expected constant growth rate of future dividends (g). The Constant Growth DCF Model may be considered in two parts. The first part is the dividend yield (D_1/P_0), and the second part is the growth rate (g). In other words, the required return in the DCF Model is equivalent to the dividend yield plus the growth rate.

In addition to the four assumptions listed above, the Constant Growth DCF Model relies on the following four additional assumptions:[93]

---

[93] *See* Roger A. Morin, *New Regulatory Finance* 254–56 (Public Utilities Reports, Inc. 2006) (1994).

1. The discount rate (K) must exceed the growth rate (g);
2. The dividend growth rate (g) is constant in every year to infinity;
3. Investors require the same return (K) in every year; and
4. There is no external financing; that is, growth is provided only by the retention of earnings.

Because the growth rate in this model is assumed to be constant, it is important not to use growth rates that are unreasonably high. In fact, the constant growth rate estimate for a regulated utility with a defined service territory should not exceed the growth rate for the economy in which it operates.

The basic form of the Constant Growth DCF Model described above is sometimes referred to as the "Annual" DCF Model. This is because the model assumes an annual dividend payment to be paid at the end of every year, as well as an increase in dividends once each year. In reality, however, most utilities pay dividends on a quarterly basis. The Constant Growth DCF equation may be modified to reflect the assumption that investors receive successive quarterly dividends and reinvest them throughout the year at the discount rate. This variation is called the Quarterly Approximation DCF Model.[94]

Equation 9:
Quarterly Approximation Discounted Cash Flow Model

$$K = \left[\frac{d_0(1+g)^{1/4}}{P_0} + (1+g)^{1/4}\right]^4 - 1$$

where: K = *discount rate / required return*
d_0 = *current quarterly dividend per share*
P_0 = *stock price*
g = *expected growth rate of future dividends*

[94] *See* Roger A. Morin, *New Regulatory Finance* 348 (Public Utilities Reports, Inc. 2006) (1994).

The Quarterly Approximation DCF Model assumes that dividends are paid quarterly, and that each dividend is constant for four consecutive quarters. All else held constant, this model results in the highest cost of equity estimate for the utility in comparison to other DCF Models because it accounts for the quarterly compounding of dividends. There are several other variations of the Constant Growth (or Annual) DCF Model, including a Semi-Annual DCF Model, which is used by the Federal Energy Regulatory Commission ("FERC"). These models, along with the Quarterly Approximation DCF Model, have been accepted in regulatory proceedings as useful tools for estimating the cost of equity.

APPENDIX C:

CAPITAL ASSET PRICING MODEL THEORY

The Capital Asset Pricing Model ("CAPM") is a market-based model founded on the principle that investors demand higher returns for incurring additional risk.[95] The CAPM estimates this required return. The CAPM relies on the following assumptions:

1. Investors are rational, risk-adverse, and strive to maximize profit and terminal wealth;
2. Investors make choices based on risk and return. Return is measured by the mean returns expected from a portfolio of assets; risk is measured by the variance of these portfolio returns;
3. Investors have homogenous expectations of risk and return;
4. Investors have identical time horizons;
5. Information is freely and simultaneously available to investors;
6. There is a risk-free asset, and investors can borrow and lend unlimited amounts at the risk-free rate;
7. There are no taxes, transaction costs, restrictions on selling short, or other market imperfections; and
8. Total asset quality is fixed, and all assets are marketable and divisible.[96]

While some of these assumptions may appear to be restrictive, they do not outweigh the inherent value of the model. The CAPM has been widely used by firms, analysts, and regulators for decades to estimate the cost of equity capital.

The basic CAPM equation is expressed as follows:

---

[95] William F. Sharpe, *A Simplified Model for Portfolio Analysis* 277-93 (Management Science IX 1963).

[96] *Id.*

Equation 10:
Capital Asset Pricing Model

$$K = R_F + \beta_i(R_M - R_F)$$

where: K = *required return*
R_F = *risk-free rate*
β = *beta coefficient of asset i*
R_M = *required return on the overall market*

There are essentially three terms within the CAPM equation that are required to calculate the required return (K): (1) the risk-free rate (R_F); (2) the beta coefficient (β); and (3) the equity risk premium ($R_M - R_F$), which is the required return on the overall market less the risk-free rate.

Raw Beta Calculations and Adjustments.

A stock's beta equals the covariance of the asset's returns with the returns on a market portfolio, divided by the portfolio's variance, as expressed in the following formula:[97]

Equation 11:
Beta

$$\beta_i = \frac{\sigma_{im}}{\sigma_m^2}$$

where: β_i = *beta of asset i*
σ_{im} = *covariance of asset i returns with market portfolio returns*
σ^2_m = *variance of market portfolio*

Betas that are published by various research firms are typically calculated through a regression analysis that considers the movements in price of an individual stock and movements in the price of the overall market portfolio. The betas produced by this regression analysis are considered "raw" betas. There is empirical evidence that raw betas should be adjusted to account

[97] *See* John R. Graham, Scott B. Smart & William L. Megginson, *Corporate Finance: Linking Theory to What Companies Do* 180–81 (3rd ed., South Western Cengage Learning 2010).

for beta's natural tendency to revert to an underlying mean.[98] Some analysts use an adjustment method proposed by Blume, which adjusts raw betas toward the market mean of one.[99] While the Blume adjustment method is popular due to its simplicity, it is arguably arbitrary, and some would say not useful at all. According to Dr. Damodaran: "While we agree with the notion that betas move toward 1.0 over time, the [Blume adjustment] strikes us as arbitrary and not particularly useful."[100] The Blume adjustment method is especially arbitrary when applied to industries with consistently low betas, such as the utility industry. For industries with consistently low betas, it is better to employ an adjustment method that adjusts raw betas toward an industry average, rather than the market average. Vasicek proposed such a method, which is preferable to the Blume adjustment method because it allows raw betas to be adjusted toward an industry average, and also accounts for the statistical accuracy of the raw beta calculation.[101] In other words, "[t]he Vasicek adjustment seeks to overcome one weakness of the Blume model by not applying the same adjustment to every security; rather, a security-specific adjustment is made depending on the statistical quality of the regression."[102] The Vasicek beta adjustment equation is expressed as follows:

---

[98] *See* Michael J. Gombola and Douglas R. Kahl, *Time-Series Processes of Utility Betas: Implications for Forecasting Systematic Risk* 84–92 (Financial Management Autumn 1990).

[99] See Marshall Blume, *On the Assessment of Risk*, Vol. 26, No. 1 The Journal of Finance 1 (1971).

[100] *See* Aswath Damodaran, *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset* 187 (3rd ed., John Wiley & Sons, Inc. 2012).

[101] Oldrich A. Vasicek, *A Note on Using Cross-Sectional Information in Bayesian Estimation of Security Betas* 1233–1239 (Journal of Finance, Vol. 28, No. 5, December 1973).

[102] 2012 Ibbotson Stocks, Bonds, Bills, and Inflation Valuation Yearbook 77–78 (Morningstar 2012).

Equation 12:
Vasicek Beta Adjustment

$$\beta_{i1} = \frac{\sigma^2_{\beta i0}}{\sigma^2_{\beta 0} + \sigma^2_{\beta i0}}\beta_0 + \frac{\sigma^2_{\beta 0}}{\sigma^2_{\beta 0} + \sigma^2_{\beta i0}}\beta_{i0}$$

where:	β_{i1}	=	*Vasicek adjusted beta for security i*
	β_{i0}	=	*historical beta for security i*
	β_0	=	*beta of industry or proxy group*
	$\sigma^2_{\beta 0}$	=	*variance of betas in the industry or proxy group*
	$\sigma^2_{\beta i0}$	=	*square of standard error of the historical beta for security i*

The Vasicek beta adjustment is an improvement on the Blume model because the Vasicek model does not apply the same adjustment to every security. A higher standard error produced by the regression analysis indicates a lower statistical significance of the beta estimate. Thus, a beta with a high standard error should receive a greater adjustment than a beta with a low standard error. As stated in Ibbotson:

> While the Vasicek formula looks intimidating, it is really quite simple. The adjusted beta for a company is a weighted average of the company's historical beta and the beta of the market, industry, or peer group. How much weight is given to the company and historical beta depends on the statistical significance of the company beta statistic. If a company beta has a low standard error, then it will have a higher weighting in the Vasicek formula. If a company beta has a high standard error, then it will have lower weighting in the Vasicek formula. An advantage of this adjustment methodology is that it does not force an adjustment to the market as a whole. Instead, the adjustment can be toward an industry or some other peer group. This is most useful in looking at companies in industries that on average have high or low betas.[103]

Thus, the Vasicek adjustment method is statistically more accurate and is the preferred method to use when analyzing companies in an industry that has inherently low betas, such as the utility industry. The Vasicek method was also confirmed by Gombola, who conducted a study specifically related to utility companies. Gombola concluded that "[t]he strong evidence of auto-

---

[103] 2012 Ibbotson Stocks, Bonds, Bills, and Inflation Valuation Yearbook 78 (Morningstar 2012).

regressive tendencies in utility betas lends support to the application of adjustment procedures such as the . . . adjustment procedure presented by Vasicek."[104] Gombola also concluded that adjusting raw betas toward the market mean of 1.0 is too high, and that "[i]nstead, they should be adjusted toward a value that is less than one."[105] In conducting the Vasicek adjustment on betas in previous cases, it reveals that utility betas are even lower than those published by Value Line.[106] Gombola's findings are particular important here, because his study was conducted specifically on utility companies. This evidence indicates that using Value Line's betas in a CAPM cost of equity estimate for a utility company may lead to overestimated results. Regardless, adjusting betas to a level that is higher than Value Line's betas is not reasonable, and it would produce CAPM cost of equity results that are too high.

---

[104] Michael J. Gombola and Douglas R. Kahl, *Time-Series Processes of Utility Betas: Implications for Forecasting Systematic Risk* 92 (Financial Management Autumn 1990) (emphasis added).

[105] Michael J. Gombola and Douglas R. Kahl, *Time-Series Processes of Utility Betas: Implications for Forecasting Systematic Risk* 91–92 (Financial Management Autumn 1990) (emphasis added).

[106] *See e.g.* Responsive Testimony of David J. Garrett, filed March 21, 2016 in Cause No. PUD 201500273 before the Corporation Commission of Oklahoma (OG&E's 2015 rate case), at pp. 56–59.

101 Park Avenue, Suite 1125
Oklahoma City, OK 73102

DAVID J. GARRETT

405.249.1050
dgarrett@resolveuc.com

EDUCATION

University of Oklahoma — Norman, OK
Master of Business Administration — 2014
Areas of Concentration: Finance, Energy

University of Oklahoma College of Law — Norman, OK
Juris Doctor — 2007
Member, American Indian Law Review

University of Oklahoma — Norman, OK
Bachelor of Business Administration — 2003
Major: Finance

PROFESSIONAL DESIGNATIONS

Society of Depreciation Professionals
Certified Depreciation Professional (CDP)

Society of Utility and Regulatory Financial Analysts
Certified Rate of Return Analyst (CRRA)

The Mediation Institute
Certified Civil / Commercial & Employment Mediator

WORK EXPERIENCE

Resolve Utility Consulting PLLC — Oklahoma City, OK
Managing Member — 2016 – Present
Provide expert analysis and testimony specializing in depreciation and cost of capital issues for clients in utility regulatory proceedings.

Oklahoma Corporation Commission — Oklahoma City, OK
Public Utility Regulatory Analyst — 2012 – 2016
Assistant General Counsel — 2011 – 2012
Represented commission staff in utility regulatory proceedings and provided legal opinions to commissioners. Provided expert analysis and testimony in depreciation, cost of capital, incentive compensation, payroll and other issues.

Perebus Counsel, PLLC — Oklahoma City, OK
Managing Member — 2009 – 2011
Represented clients in the areas of family law, estate planning, debt negotiations, business organization, and utility regulation.

Moricoli & Schovanec, P.C. — Oklahoma City, OK
Associate Attorney — 2007 – 2009
Represented clients in the areas of contracts, oil and gas, business structures and estate administration.

TEACHING EXPERIENCE

University of Oklahoma — Norman, OK
Adjunct Instructor – "Conflict Resolution" — 2014 – Present
Adjunct Instructor – "Ethics in Leadership"

Rose State College — Midwest City, OK
Adjunct Instructor – "Legal Research" — 2013 – 2015
Adjunct Instructor – "Oil & Gas Law"

PUBLICATIONS

American Indian Law Review — Norman, OK
"Vine of the Dead: Reviving Equal Protection Rites for Religious Drug Use" — 2006
(31 Am. Indian L. Rev. 143)

VOLUNTEER EXPERIENCE

Calm Waters — Oklahoma City, OK
Board Member — 2015 – 2018
Participate in management of operations, attend meetings, review performance, compensation, and financial records. Assist in fundraising events.

Group Facilitator & Fundraiser — 2014 – 2018
Facilitate group meetings designed to help children and families cope with divorce and tragic events. Assist in fundraising events.

St. Jude Children's Research Hospital — Oklahoma City, OK
Oklahoma Fundraising Committee — 2008 – 2010
Raised money for charity by organizing local fundraising events.

PROFESSIONAL ASSOCIATIONS

Oklahoma Bar Association — 2007 – Present

Society of Depreciation Professionals — 2014 – Present
Board Member – President — 2017
Participate in management of operations, attend meetings, review performance, organize presentation agenda.

Society of Utility Regulatory Financial Analysts — 2014 – Present

SELECTED CONTINUING PROFESSIONAL EDUCATION

Society of Depreciation Professionals — Austin, TX
"Life and Net Salvage Analysis" — 2015
Extensive instruction on utility depreciation, including actuarial and simulation life analysis modes, gross salvage, cost of removal, life cycle analysis, and technology forecasting.

Society of Depreciation Professionals — New Orleans, LA
"Introduction to Depreciation" and "Extended Training" — 2014
Extensive instruction on utility depreciation, including average lives and net salvage.

Society of Utility and Regulatory Financial Analysts — Indianapolis, IN
46th Financial Forum. "The Regulatory Compact: Is it Still Relevant?" — 2014
Forum discussions on current issues.

New Mexico State University, Center for Public Utilities — Santa Fe, NM
Current Issues 2012, "The Santa Fe Conference" — 2012
Forum discussions on various current issues in utility regulation.

Michigan State University, Institute of Public Utilities — Clearwater, FL
"39th Eastern NARUC Utility Rate School" — 2011
One-week, hands-on training emphasizing the fundamentals of the utility ratemaking process.

New Mexico State University, Center for Public Utilities — Albuquerque, NM
"The Basics: Practical Regulatory Training for the Changing Electric Industries" — 2010
One-week, hands-on training designed to provide a solid foundation in core areas of utility ratemaking.

The Mediation Institute — Oklahoma City, OK
"Civil / Commercial & Employment Mediation Training" — 2009
Extensive instruction and mock mediations designed to build foundations in conducting mediations in civil matters.

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Railroad Commission of Texas	Texas Gas Services Company	GUD 10928	Depreciation rates, service lives, net salvage	Gulf Coast Service Area Steering Committee
Public Utilities Commission of the State of California	Southern California Edison	A.19-08-013	Depreciation rates, service lives, net salvage	The Utility Reform Network
Massachusetts Department of Public Utilities	NSTAR Gas Company	D.P.U. 19-120	Depreciation rates, service lives, net salvage	Massachusetts Office of the Attorney General, Office of Ratepayer Advocacy
Georgia Public Service Commission	Liberty Utilities (Peach State Natural Gas)	42959	Depreciation rates, service lives, net salvage	Public Interest Advocacy Staff
Florida Public Service Commission	Florida Public Utilities Company	20190155-EI 20190156-EI 20190174-EI	Depreciation rates, service lives, net salvage	Florida Office of Public Counsel
Illinois Commerce Commission	Commonwealth Edison Company	20-0393	Depreciation rates, service lives, net salvage	The Office of the Illinois Attorney General
Public Utility Commission of Texas	Southwestern Public Service Company	PUC 49831	Depreciation rates, service lives, net salvage	Alliance of Xcel Municipalities
South Carolina Public Service Commission	Blue Granite Water Company	2019-290-WS	Depreciation rates, service lives, net salvage	South Carolina Office of Regulatory Staff
Railroad Commission of Texas	CenterPoint Energy Resources	GUD 10920	Depreciation rates and grouping procedure	Alliance of CenterPoint Municipalities
Pennsylvania Public Utility Commission	Aqua Pennsylvania Wastewater	A-2019-3009052	Fair market value estimates for wastewater assets	Pennsylvania Office of Consumer Advocate
New Mexico Public Regulation Commission	Southwestern Public Service Company	19-00170-UT	Cost of capital and authorized rate of return	The New Mexico Large Customer Group; Occidental Permian
Indiana Utility Regulatory Commission	Duke Energy Indiana	45253	Cost of capital, depreciation rates, net salvage	Indiana Office of Utility Consumer Counselor
Maryland Public Service Commission	Columbia Gas of Maryland	9609	Depreciation rates, service lives, net salvage	Maryland Office of People's Counsel
Washington Utilities & Transportation Commission	Avista Corporation	UE-190334	Cost of capital, awarded rate of return, capital structure	Washington Office of Attorney General

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Indiana Utility Regulatory Commission	Indiana Michigan Power Company	45235	Cost of capital, depreciation rates, net salvage	Indiana Office of Utility Consumer Counselor
Public Utilities Commission of the State of California	Pacific Gas & Electric Company	18-12-009	Depreciation rates, service lives, net salvage	The Utility Reform Network
Oklahoma Corporation Commission	The Empire District Electric Company	PUD 201800133	Cost of capital, authorized ROE, depreciation rates	Oklahoma Industrial Energy Consumers and Oklahoma Energy Results
Arkansas Public Service Commission	Southwestern Electric Power Company	19-008-U	Cost of capital, depreciation rates, net salvage	Western Arkansas Large Energy Consumers
Public Utility Commission of Texas	CenterPoint Energy Houston Electric	PUC 49421	Depreciation rates, service lives, net salvage	Texas Coast Utilities Coalition
Massachusetts Department of Public Utilities	Massachusetts Electric Company and Nantucket Electric Company	D.P.U. 18-150	Depreciation rates, service lives, net salvage	Massachusetts Office of the Attorney General, Office of Ratepayer Advocacy
Oklahoma Corporation Commission	Oklahoma Gas & Electric Company	PUD 201800140	Cost of capital, authorized ROE, depreciation rates	Oklahoma Industrial Energy Consumers and Oklahoma Energy Results
Public Service Commission of the State of Montana	Montana-Dakota Utilities Company	D2018.9.60	Depreciation rates, service lives, net salvage	Montana Consumer Counsel and Denbury Onshore
Indiana Utility Regulatory Commission	Northern Indiana Public Service Company	45159	Depreciation rates, grouping procedure, demolition costs	Indiana Office of Utility Consumer Counselor
Public Service Commission of the State of Montana	NorthWestern Energy	D2018.2.12	Depreciation rates, service lives, net salvage	Montana Consumer Counsel
Oklahoma Corporation Commission	Public Service Company of Oklahoma	PUD 201800097	Depreciation rates, service lives, net salvage	Oklahoma Industrial Energy Consumers and Wal-Mart
Nevada Public Utilities Commission	Southwest Gas Corporation	18-05031	Depreciation rates, service lives, net salvage	Nevada Bureau of Consumer Protection
Public Utility Commission of Texas	Texas-New Mexico Power Company	PUC 48401	Depreciation rates, service lives, net salvage	Alliance of Texas-New Mexico Power Municipalities
Oklahoma Corporation Commission	Oklahoma Gas & Electric Company	PUD 201700496	Depreciation rates, service lives, net salvage	Oklahoma Industrial Energy Consumers and Oklahoma Energy Results

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Maryland Public Service Commission	Washington Gas Light Company	9481	Depreciation rates, service lives, net salvage	Maryland Office of People's Counsel
Indiana Utility Regulatory Commission	Citizens Energy Group	45039	Depreciation rates, service lives, net salvage	Indiana Office of Utility Consumer Counselor
Public Utility Commission of Texas	Entergy Texas, Inc.	PUC 48371	Depreciation rates, decommissioning costs	Texas Municipal Group
Washington Utilities & Transportation Commission	Avista Corporation	UE-180167	Depreciation rates, service lives, net salvage	Washington Office of Attorney General
New Mexico Public Regulation Commission	Southwestern Public Service Company	17-00255-UT	Cost of capital and authorized rate of return	HollyFrontier Navajo Refining; Occidental Permian
Public Utility Commission of Texas	Southwestern Public Service Company	PUC 47527	Depreciation rates, plant service lives	Alliance of Xcel Municipalities
Public Service Commission of the State of Montana	Montana-Dakota Utilities Company	D2017.9.79	Depreciation rates, service lives, net salvage	Montana Consumer Counsel
Florida Public Service Commission	Florida City Gas	20170179-GU	Cost of capital, depreciation rates	Florida Office of Public Counsel
Washington Utilities & Transportation Commission	Avista Corporation	UE-170485	Cost of capital and authorized rate of return	Washington Office of Attorney General
Wyoming Public Service Commission	Powder River Energy Corporation	10014-182-CA-17	Credit analysis, cost of capital	Private customer
Oklahoma Corporation Commission	Public Service Co. of Oklahoma	PUD 201700151	Depreciation, terminal salvage, risk analysis	Oklahoma Industrial Energy Consumers
Public Utility Commission of Texas	Oncor Electric Delivery Company	PUC 46957	Depreciation rates, simulated analysis	Alliance of Oncor Cities
Nevada Public Utilities Commission	Nevada Power Company	17-06004	Depreciation rates, service lives, net salvage	Nevada Bureau of Consumer Protection
Public Utility Commission of Texas	El Paso Electric Company	PUC 46831	Depreciation rates, interim retirements	City of El Paso

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Idaho Public Utilities Commission	Idaho Power Company	IPC-E-16-24	Accelerated depreciation of North Valmy plant	Micron Technology, Inc.
Idaho Public Utilities Commission	Idaho Power Company	IPC-E-16-23	Depreciation rates, service lives, net salvage	Micron Technology, Inc.
Public Utility Commission of Texas	Southwestern Electric Power Company	PUC 46449	Depreciation rates, decommissioning costs	Cities Advocating Reasonable Deregulation
Massachusetts Department of Public Utilities	Eversource Energy	D.P.U. 17-05	Cost of capital, capital structure, and rate of return	Sunrun Inc.; Energy Freedom Coalition of America
Railroad Commission of Texas	Atmos Pipeline - Texas	GUD 10580	Depreciation rates, grouping procedure	City of Dallas
Public Utility Commission of Texas	Sharyland Utility Company	PUC 45414	Depreciation rates, simulated analysis	City of Mission
Oklahoma Corporation Commission	Empire District Electric Company	PUD 201600468	Cost of capital, depreciation rates	Oklahoma Industrial Energy Consumers
Railroad Commission of Texas	CenterPoint Energy Texas Gas	GUD 10567	Depreciation rates, simulated plant analysis	Texas Coast Utilities Coalition
Arkansas Public Service Commission	Oklahoma Gas & Electric Company	160-159-GU	Cost of capital, depreciation rates, terminal salvage	Arkansas River Valley Energy Consumers; Wal-Mart
Florida Public Service Commission	Peoples Gas	160-159-GU	Depreciation rates, service lives, net salvage	Florida Office of Public Counsel
Arizona Corporation Commission	Arizona Public Service Company	E-01345A-16-0036	Cost of capital, depreciation rates, terminal salvage	Energy Freedom Coalition of America
Nevada Public Utilities Commission	Sierra Pacific Power Company	16-06008	Depreciation rates, net salvage, theoretical reserve	Northern Nevada Utility Customers
Oklahoma Corporation Commission	Oklahoma Gas & Electric Co.	PUD 201500273	Cost of capital, depreciation rates, terminal salvage	Public Utility Division
Oklahoma Corporation Commission	Public Service Co. of Oklahoma	PUD 201500208	Cost of capital, depreciation rates, terminal salvage	Public Utility Division

Utility Regulatory Proceedings

Regulatory Agency	Utility Applicant	Docket Number	Issues Addressed	Parties Represented
Oklahoma Corporation Commission	Oklahoma Natural Gas Company	PUD 201500213	Cost of capital, depreciation rates, net salvage	Public Utility Division

Summary Results

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Gannett Fleming Results and Adjustments							
Approach	Base Value	Weight	Weighted Value	OCA Adjustment	Adjusted Value	OCA Weight	OCA Weighted Value
Market	$ 12,471,156	33.4%	$ 4,165,366	$ (1,809,367)	$ 10,661,789	33.3%	$ 3,553,930
Cost	13,254,220	33.3%	4,413,655	(2,953,437)	10,300,783	33.3%	3,433,594
Income	13,932,841	33.3%	4,639,636	(5,882,188)	8,050,653	33.3%	2,683,551
Total			$ 13,218,657	**Total**			$ 9,671,075
AUS Consultants Results and Adjustments							
Approach	Base Value	Weight	Weighted Value	OCA Adjustment	Adjusted Value	OCA Weight	OCA Weighted Value
Market	$ 12,873,137	10.0%	$ 1,287,314	$ (2,925,782)	$ 9,947,355	33.3%	$ 3,315,785
Cost	13,376,109	50.0%	6,688,055	(643,364)	12,732,745	33.3%	4,244,248
Income	14,486,081	40.0%	5,794,432	(6,435,428)	8,050,653	33.3%	2,683,551
Total			$ 13,769,801	**Total**			$ 10,243,584

Results Summary

	Appraiser Weighted Value	OCA Adjusted Value
Gannett Fleming	$ 13,218,657	$ 9,671,075
AUS Consultants	13,769,801	10,243,584
Average	$ 13,494,229	$ 9,957,330
Purchase Price	$ 13,000,000	$ 13,000,000
Lesser of Purchase Price and Market Value	**$ 13,000,000**	**$ 9,957,330**

[1] Valuation apprach
[2] Appraised value
[3] Applied weighting
[4] = [2] * [3]
[5] = [6] - [2]
[6] OCA adjusted value
[7] Applied weighting
[8] = [6] * [7]

Gannett Fleming Market Adjustment Summary

	[1]	[2]	[3]	[4]	[5]	[6]
	Gannett Fleming Market Approach Results			OCA Adjusted Market Approach Results		
	Amount	Weight	Result	Amount	Weight	Result
Market Multiples	$ 11,802,414	50%	$ 5,901,207	$ 11,802,414	50%	$ 5,901,207
Selected Transactions	13,139,898	50%	6,569,949	9,521,165	50%	4,760,582
Total			$ 12,471,156			$ 10,661,789

[1], [2], [3] Appendix A-5.2 - Gannett Fleming FMV Appraisal, Exhibit 17 (selected transaction = avg. of all selected and fully integrated)

[4] Adjusted amounts from OCA Exhibit DJG-4

[5] Applied weighting

[6] = [4] * [5]

Gannett Fleming
Selected Transaction Adjustment

Township / Acquired System	Gannett Fleming Results: Purchase Price and Capital Statistic	Gannett Fleming Results: Price / Statistic Ratio	Gannett Fleming Results: Adjusted Statistic	OCA Adjusted Results: Purchase Price and Capital Statistic	OCA Adjusted Results: Price / Statistic Ratio		OCA Adjusted Results: Adjusted Statistic
Capital Statistics							
Royersford							
Investor Capital	$ 4,702,972			$ 4,702,972			
Gross PP&E	7,666,493			7,666,493			
Net PP&E	5,453,064			5,453,064			
New Garden (INT)	29,500,000			29,500,000			
Investor Capital	23,001,140	1.28	6,031,774	23,001,140	1.28		6,031,774
Gross PP&E	25,988,330	1.14	8,702,427	27,267,123	1.08		8,294,294
Net PP&E	17,967,319	1.64	8,953,222	18,590,089	1.59		8,653,288
McKeesport	156,000,000			158,000,000			
Investor Capital	83,903,219	1.86	8,744,165	83,903,219	1.88		8,856,270
Gross PP&E	91,435,797	1.71	13,079,920	108,231,570	1.46		11,191,798
Net PP&E	73,813,794	2.11	11,524,648	80,085,602	1.97		10,758,290
Limerick (INT)	75,100,000			64,373,378			
Investor Capital	43,501,755	1.73	8,119,056	43,501,755	1.48		6,959,402
Gross PP&E	60,847,250	1.23	9,462,278	63,480,402	1.01		7,774,337
Net PP&E	36,113,701	2.08	11,339,882	46,153,867	1.39		7,605,693
East Bradford (C/D)	5,000,000			5,000,000			
Investor Capital	1,298,627	3.85	18,107,478	1,298,627	3.85	*	18,107,478
Gross PP&E	N/A		N/A	8,294,930	0.60	*	4,621,192
Net PP&E	N/A		N/A	5,473,947	0.91		4,980,925
Mahoning (C/D)	9,500,000			9,500,000			
Investor Capital	NA			NA			
Gross PP&E	5,460,043	1.74	13,339,031	10,225,921	0.93		7,122,262
Net PP&E	2,815,114	3.37	18,402,135	6,741,997	1.41		7,683,793
East Norriton (C/D)	21,000,000			20,750,000			
Investor Capital	NA			NA			
Gross PP&E	16,916,212	1.24	9,517,282	16,916,212	1.23		9,403,981
Net PP&E	9,251,450	2.27	12,377,989	9,251,450	2.24		12,230,632
Average Capital Statistics-Indicated Market Value (excluding max and min result)							$ 8,396,196
Demographic Statistics							
Royersford							
Customers	1,596			1,596			
Population	5,154			5,154			
New Garden (INT)	$ 29,500,000			$ 29,500,000			
Customers	1,796	$ 16,425	$ 26,214,922	2,100	14,048	*	22,420,000
Population	12,085	2,441	12,581,134	12,085	2,441		12,581,134
McKeesport	156,000,000			158,000,000			
Customers	20,320	7,677	12,252,756	20,320	7,776		12,409,843
Population	61,752	2,526	13,020,210	61,752	2,559		13,187,136
Limerick (INT)	75,100,000			64,373,378			
Customers	5,416	$ 13,866	$ 22,130,650	5,434	11,846		18,906,866
Population	18,798	3,995	20,590,776	18,798	3,424		17,649,771
East Bradford (C/D)	5,000,000			5,000,000			
Customers	1,248	$ 4,006	$ 6,394,231	1,248	4,006		6,394,231
Population	9,942	503	2,592,034	9,942	503	*	2,592,034
Mahoning (C/D)	9,500,000			9,500,000			
Customers	2,403	$ 3,953	$ 6,309,613	2,806	3,386		5,403,421
Population	8,472	1,121	5,779,391	8,472	1,121		5,779,391
East Norriton (C/D)	21,000,000			20,750,000			
Customers	4,966	$ 4,229	$ 6,749,094	4,966	4,178		6,668,747
Population	14,296	1,469	7,570,929	14,296	1,451		7,480,799
Average Demographic Statistics-Indicated Market Value (excluding max and min result)							$ 10,646,134
Market Approach Result							$ 9,521,165

* Excluded from final results

AUS Market Approach Adjustment

[1]	[2]		[3]		[4]	[5]		[6]		[7]
	AUS Consultants Results					OCA Adjusted Results				
Acquisitions	Purchase Price		RCNLD		Ratio	Fair Market Value		RCNLD		Ratio
Aqua/New Garden	$ 29,500,000		$ 30,615,410		0.96	$ 29,500,000		$ 30,615,410		0.96
PAWC/McKeesport	159,000,000		160,301,491		0.99	158,000,000		160,301,491		0.99
Aqua/Limerick	75,100,000		86,086,756		0.87	64,373,378		86,086,756		0.75
SUEZ/Mahoning Water	4,734,800	*	8,899,336	*	0.53	4,734,800		8,899,336		0.53
SUEZ/Mahoning Wastewater	4,765,200	*	7,991,234	*	0.60	4,765,200		7,991,234		0.60
Aqua/East Bradford	5,000,000	*	9,236,581	*	0.54	5,000,000		9,236,581		0.54
PAWC/Sadsbury	9,250,000		8,517,587		1.09	8,300,000		8,517,587		0.97
PAWC/Exeter	96,000,000		99,589,819		0.96	92,000,000		99,589,819		0.92
PAWC/Steelton	22,500,000		23,921,473		0.94	20,500,000		23,921,473		0.86
Aqua/Cheltenham	50,250,000		49,940,486		1.01	44,558,259		49,940,486		0.89
PAWC/Kane	17,560,000	*	29,015,055	*	0.61	17,560,000		29,015,055		0.61
Aqua/East Norriton	21,000,000		27,461,356		0.76	20,750,000		27,461,356		0.76
Total Included	$ 412,350,000		$ 436,493,892		0.94	$ 470,041,637		$ 541,576,584		0.78
RCNLD Results	[8]				$ 13,376,109					$ 12,732,745
Market Approach Result	[9]									**$ 9,947,355**

* Excluded from total

[1] Proxy group - company name

[2] Purchase price

[3] AUS reported Replacement Cost New Less Depreciation

[4] = [2] / [3]

[5] Fair market value decided by Commission for each proxy company

[6] RCNLD from proxy group

[7] = [5] / [6]

[8] RCNLD Results

[9] Total ratio in [8] * [9]

Gannett Fleming Cost Approach Adjustment Summary

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
		Gannett Fleming Position			OCA Adjustments		
Account	Description	Iowa Curve	Replacement Cost	Accrued Depreciation	Iowa Curve	Replacement Cost	Accrued Depreciation
353.20	LAND AND LAND RIGHTS - COLLECTION	ND	$ 13	$ -	ND	$ 13	$ -
353.30	LAND AND LAND RIGHTS - PUMPING	ND	39	-	ND	39	-
353.40	LAND AND LAND RIGHTS - TREATMENT	ND	3,000	-	ND	3,000	-
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	65-R3	1,115,943	704,829	45-R4	1,115,943	876,682
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	70-R2.5	13,450,848	9,405,215	55-R4	13,450,848	11,371,842
355.00	POWER GENERATION EQUIPMENT	30-S2	769,838	308,876	30-S2	769,838	308,876
360.21	COLLECTION SEWERS - FORCE - MAINS	70-R2.5	977,577	797,128	60-R2.5	977,577	849,787
361.21	COLLECTION SEWERS - GRAVITY - MAINS	70-R2.5	11,698,064	9,743,000	60-R2.5	11,698,064	10,333,588
361.22	COLLECTION SEWERS - GRAVITY - MAINS LINING	50-R2.5	846,257	91,302	50-R2.5	846,257	91,302
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	65-R3	1,084,046	952,529	60-R3	1,084,046	981,665
363.20	SERVICES TO CUSTOMERS	60-R2.5	1,277,072	1,125,070	45-R3	1,277,072	1,267,645
364.00	FLOW MEASURING DEVICES	30-L3	20,954	6,035	30-L3	20,954	6,035
371.40	PUMPING EQUIPMENT	40-R1.5	311,230	56,352	40-R1.5	311,230	56,352
380.40	TREATMENT AND DISPOSAL EQUIPMENT	45-S0.5	11,918,695	7,037,700	45-S0.5	11,918,695	7,037,700
390.70	EQUIPMENT - GENERAL PLANT	15-SQ	7,582	2,401	15-SQ	7,582	2,401
396.70	COMMUNICATION EQUIPMENT	15-SQ	5,119	1,621	15-SQ	5,119	1,621
	Total		$ 43,486,278	$ 30,232,058		$ 43,486,278	$ 33,185,495
	Cost Approach Results	[9]		$ 13,254,220			$ 10,300,783

[1], [2], [3], [4], [5] Appendix A-5.2 - Gannett Fleming FMV Appraisal, Exhibit 9. ND = nondepreciable

[6] Selected Iowa curve

[7] Reporduction cost

[8] = Adjusted accrued depreciation calculations from OCA DJG Exhibits 4, 5 and 6

[9] Total reproduction cost - total accrued depreciation

Account 354.30
Remaining Life Calculation

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Original	Average	Annual Accrual		Remaining	Accrued Depreciation	
Year	Cost	Life	Rate	Amount	Life	Factor	Amount
1935	$ 291,528	45	2.22%	$ 6,478	0.0	1.00	$ 291,528
1958	361,277	45	2.22%	8,028	1.6	0.97	348,753
1988	398	45	2.22%	9	15.4	0.66	262
1989	174,849	45	2.22%	3,886	16.2	0.64	111,981
1990	68,348	45	2.22%	1,519	17.0	0.62	42,543
2000	180,602	45	2.22%	4,013	25.8	0.43	76,976
2011	8,169	45	2.22%	182	36.5	0.19	1,538
2012	17,791	45	2.22%	395	37.5	0.17	2,957
2019	12,982	45	2.22%	288	44.5	0.01	144
Total	$ 1,115,943			$ 24,799	35.35		$ 876,682
Survivor Curve:		45-R4	[9]				

[1], [2] Appendix A-5.2 - Gannett Fleming FMV Appraisal, Exhibit 11.

[3] Average life based on selected Iowa curve at [9]

[4] = 1 / [3]

[5] = [2] * [4]

[6] RL based on selected Iowa curve at [9]

[7] = 1 - ([4] * [6])

[8] = [2] * [7]

[9] Selected Iowa curve

Docket No. A-2020-3019634

Account 354.40
Remaining Life Calculation

OCA Exhibit DJG-8

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Original	Average	Annual Accrual		Remaining	Accrued Depreciation	
Year	Cost	Life	Rate	Amount	Life	Factor	Amount
1935	$ 10,058,692	55	1.82%	$ 182,885	0.0	1.00	$ 10,058,692
1986	68,577	55	1.82%	1,247	22.9	0.58	40,049
1987	1,641	55	1.82%	30	23.7	0.57	933
1993	152,546	55	1.82%	2,774	29.1	0.47	71,891
1998	3,093,210	55	1.82%	56,240	33.8	0.39	1,193,979
2014	4,350	55	1.82%	79	49.5	0.10	434
2015	71,833	55	1.82%	1,306	50.5	0.08	5,864
Total	$ 13,450,848			$ 244,561	46.50		$ 11,371,842
Survivor Curve:		**55-R4**	[9]				

[1], [2] Appendix A-5.2 - Gannett Fleming FMV Appraisal, Exhibit 11.

[3] Average life based on selected Iowa curve at [9]

[4] = 1 / [3]

[5] = [2] * [4]

[6] RL based on selected Iowa curve at [9]

[7] = 1 - ([4] * [6])

[8] = [2] * [7]

[9] Selected Iowa curve

Account 360.21
Remaining Life Calculation

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Original	Average	Annual Accrual		Remaining	Accrued Depreciation	
Year	Cost	Life	Rate	Amount	Life	Factor	Amount
1935	$ 807,958	60	1.67%	$ 13,466	6.6	0.89	$ 718,814
1958	169,618	60	1.67%	2,827	13.7	0.77	130,974
Total	$ 977,577			$ 16,293	52.16		$ 849,787
Survivor Curve:		**60-R2.5**	[9]				

[1], [2] Appendix A-5.2 - Gannett Fleming FMV Appraisal, Exhibit 11.

[3] Average life based on selected Iowa curve at [9]

[4] = 1 / [3]

[5] = [2] * [4]

[6] RL based on selected Iowa curve at [9]

[7] = 1 - ([4] * [6])

[8] = [2] * [7]

[9] Selected Iowa curve

Docket No. A-2020-3019634

Account 361.21
Remaining Life Calculation

OCA Exhibit DJG-10

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Original	Average	Annual Accrual		Remaining	Accrued Depreciation	
Year	Cost	Life	Rate	Amount	Life	Factor	Amount
1935	$ 7,215,419	60	1.67%	$ 120,257	6.6	0.89	$ 6,419,318
1936	4,337,348	60	1.67%	72,289	6.9	0.89	3,842,168
1955	17,704	60	1.67%	295	12.4	0.79	14,040
1972	27,207	60	1.67%	453	21.2	0.65	17,612
1990	27,398	60	1.67%	457	34.0	0.43	11,859
1992	41,068	60	1.67%	684	35.6	0.41	16,680
1994	18,119	60	1.67%	302	37.3	0.38	6,870
1995	13,800	60	1.67%	230	38.1	0.37	5,042
Total	$ 11,698,064			$ 194,968	53.00		$ 10,333,588
Survivor Curve:		**60-R2.5**	[9]				

[1], [2] Appendix A-5.2 - Gannett Fleming FMV Appraisal, Exhibit 11.

[3] Average life based on selected Iowa curve at [9]

[4] = 1 / [3]

[5] = [2] * [4]

[6] RL based on selected Iowa curve at [9]

[7] = 1 - ([4] * [6])

[8] = [2] * [7]

[9] Selected Iowa curve

Account 361.23
Remaining Life Calculation

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Original	Average	Annual Accrual		Remaining	Accrued Depreciation	
Year	Cost	Life	Rate	Amount	Life	Factor	Amount
1935	$ 651,801	60	1.67%	$ 10,863	4.2	0.93	$ 606,392
1936	373,682	60	1.67%	6,228	4.4	0.93	346,092
1955	4,598	60	1.67%	77	10.2	0.83	3,819
1972	6,593	60	1.67%	110	19.2	0.68	4,485
1985	6,081	60	1.67%	101	28.6	0.52	3,179
1990	11,588	60	1.67%	193	32.7	0.46	5,274
1992	23,630	60	1.67%	394	34.4	0.43	10,090
1995	6,073	60	1.67%	101	37.0	0.38	2,332
Total	$ 1,084,046			$ 18,067	54.33		$ 981,665
Survivor Curve:		**60-R3**	[9]				

[1], [2] Appendix A-5.2 - Gannett Fleming FMV Appraisal, Exhibit 11.

[3] Average life based on selected Iowa curve at [9]

[4] = 1 / [3]

[5] = [2] * [4]

[6] RL based on selected Iowa curve at [9]

[7] = 1 - ([4] * [6])

[8] = [2] * [7]

[9] Selected Iowa curve

Account 363.20
Remaining Life Calculation

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
	Original	Average	Annual Accrual		Remaining	Accrued Depreciation	
Year	Cost	Life	Rate	Amount	Life	Factor	Amount
1935	$ 776,308	45	2.22%	$ 17,251	0.0	1.00	$ 776,308
1936	469,283	45	2.22%	10,429	0.0	1.00	469,283
1972	22,314	45	2.22%	496	8.0	0.82	18,357
1990	5,416	45	2.22%	120	18.7	0.58	3,168
2013	3,750	45	2.22%	83	38.7	0.14	527
Total	$ 1,277,072			$ 28,379	44.67		$ 1,267,645
Survivor Curve:		**45-R3**	[9]				

[1], [2] Appendix A-5.2 - Gannett Fleming FMV Appraisal, Exhibit 11.
[3] Average life based on selected Iowa curve at [9]
[4] = 1 / [3]
[5] = [2] * [4]
[6] RL based on selected Iowa curve at [9]
[7] = 1 - ([4] * [6])
[8] = [2] * [7]
[9] Selected Iowa curve

AUS Consultants
Cost Approach Adjustment Summary

	[1] AUS Cost Approach Summary	[2] OCA Cost Approach Summary
Replacement Cost New (RCN)	$ 40,821,536	$ 40,821,536
Replacement Cost New Less Depreciation (RCNLD)	$ 13,376,109	$ 12,732,745

[1] Appendix A-5.1 - AUS Consultants FMV Appraisal

[2] Figures from OCA Exhibit DJG-9

AUS Consultants

Cost Approach Detailed Adjustment

Account	Description	Replacement Cost New	Iowa Curve	Remaining Life	Total Life Expectancy	Condition	RCNLD
	Power Generation - Pumping						
355.30	10th Avenue Pump Station Generator	$ 71,063	30-R3	12.6	32.1	39%	$ 27,867
355.30	Green Street Pump Station Generator	23,146	30-R3	22.8	30.3	75%	17,413
355.40	WWTP Generator	372,215	30-R3	19.2	30.7	63%	232,922
	Collection Sewers - Force Mains						
360.20	10th Ave. Forcemain	535,136	60-R3	9.0	93.5	10%	51,510
360.20	Green Street Forcemain	126,330	60-R3	11.3	72.8	15%	19,580
	Collection Sewers - Gravity Mains						
361.21	VCP - 8-inch	2,913,415	60-R2.5	9.0	93.5	10%	280,436
361.22	VCP - 8-inch Relined in 2013 Qty 2,003 LF	195,506	60-R2.5	53.8	60.3	89%	174,442
361.22	VCP - 8-inch Relined in 2014 Qty 1,024 LF	99,984	60-R2.5	53.8	60.3	89%	89,211
361.22	VCP - 8-inch Relined in 2016 Qty 2,432 LF	237,392	60-R2.5	53.8	60.3	89%	211,815
361.21	VCP - 10-inch	-	60-R2.5	9.0	93.5	10%	-
361.22	VCP - 10-inch relined in 2013 Qty 910 LF	136,397	60-R2.5	53.8	60.3	89%	121,702
361.21	VCP - 12-inch	329,674	60-R2.5	9.0	93.5	10%	31,733
361.22	VCP - 12-inch relined in 2015 Qty 335 LF	65,092	60-R2.5	55.5	60.0	93%	60,210
361.21	VCP - 15-inch	554,941	60-R2.5	9.0	93.5	10%	53,417
361.22	VCP - 15-inch relined in 2014 Qty 1,642 LF	408,497	60-R2.5	54.9	60.4	91%	371,324
361.22	VCP - 15-inch relined in 2015 Qty 138 LF	34,332	60-R2.5	55.5	60.0	93%	31,757
361.21	CIP - 15-inch	55,284	60-R2.5	9.0	93.5	10%	5,322
361.21	VCP - 8-inch	2,005,002	60-R2.5	9.0	92.5	10%	195,081
361.21	VCP - 10-inch	48,031	60-R2.5	9.0	92.5	10%	4,673
361.22	VCP - 10-inch relined in 2013 Qty 208 LF	29,693	60-R2.5	9.0	92.5	10%	2,889
361.21	VCP - 12-inch	224,929	60-R2.5	9.0	92.5	10%	21,885
361.21	VCP - 15-inch	568,527	60-R2.5	9.0	92.5	10%	55,316
361.21	VCP - 8-inch	12,963	60-R2.5	12.3	76.8	16%	2,076
361.21	VCP - 8-inch	20,401	60-R2.5	21.2	68.7	31%	6,300
361.21	PVC - 8-inch	16,699	60-R2.5	29.9	64.4	46%	7,759
361.21	PVC - 8-inch	22,923	60-R2.5	34.1	63.6	54%	12,292
361.21	PVC - 8-inch	37,621	60-R2.5	35.5	63.0	56%	21,210
361.21	PVC - 8-inch	12,320	60-R2.5	38.0	62.5	61%	7,490
	Collection Sewers - Gravity Mains - Relining						
361.22	2012 CIPP Lining	213,903	50-R2.5	43.9	50.4	87%	186,333
361.22	2013 CIPP Lining	409,371	50-R2.5	44.9	50.4	89%	364,662
361.22	2016 CIPP Lining	199,449	50-R2.5	45.8	50.3	91%	181,599
	Collection Sewers - Gravity - Manholes						
361.23	Initial installation	363,130	60-R2.5	9.0	93.5	10%	34,954
361.23	System expansion	219,143	60-R2.5	9.0	92.5	10%	21,322
361.23	S. Third Ave	3,342	60-R2.5	12.3	76.8	16%	535
361.23	6th St. at Church St.	4,646	60-R2.5	21.2	68.7	31%	1,435
361.23	S. Fourth Ave	4,236	60-R2.5	29.9	64.4	46%	1,968
361.23	Elm St.	9,024	60-R2.5	34.1	63.6	54%	4,839
361.23	Elementary School	18,114	60-R2.5	35.5	63.0	56%	10,212
361.23	6th St. at Church St.	4,575	60-R2.5	38.0	62.5	61%	2,781
	TOTAL ADJUSTED ACCOUNTS	$ 10,606,446					$ 2,928,270
	TOTAL OTHER ACCOUNTS (UNADJUSTED)	30,215,090					9,804,475
	TOTAL COST APPROACH RESULT	**$ 40,821,536**					**$ 12,732,745**

Income Approach Adjustment Summary

Annual Cash Flow	$	65,150	[1]
Constant Growth Rate		3.9%	[2]
Discount Rate		4.7%	[3]
Adjusted Value	**$**	**8,050,653**	[4]

[1] From OCA Exhibit DJG-16
[2] From OCA Exhibit DJG-18
[3] From OCA Exhibit DJG-17
[4] = [1] * (1+[2]) / ([3] - [2])

Annual Free Cash Flow Calculation

	Year 0
Operating Revenues	$ 854,400
EBIT	91,618
Tax (28.89%)	26,468
EBIT (1-t)	65,150
Depreciation	154,351
Capital Expenditures	(154,351)
Free Cash Flow from Operations	**$ 65,150**

See App. A-5.2, Gannett Fleming FMV Appraisal, Exh. 14

Adjust to account for capital expenditures

Weighted Cost of Capital Calculation

Capital Component	Proposed Ratio	Cost Rate	After-Tax Rate	Weighted Cost
Long Term Debt	49%	4.8%	3.4%	1.70%
Equity	51%	6.0%	6.0%	3.04%
Total	100%			4.74%

See OCA Exhibit DJG-18 for capital structure and cost rates

Cost of Capital Summary

Company	Ticker	[1] Stock Price ($)	[2] Dividend ($)	[3] Beta	[4] Debt Ratio	[5] Interest Exp. (mill)	[6] Long-Term Debt (mill)	[7] Debt Cost	[8] DCF Result	[9] CAPM Result
American States Water Co	AWR	75.85	0.335	0.65	46%	$ 24.5	$ 280.9	8.7%	5.7%	5.4%
American Water Works Co Inc	AWK	149.81	0.550	0.85	61%	354.0	9,589.0	3.7%	5.4%	6.6%
Artesian Resources -CL A	ARTNA	35.02	0.250	0.70	47%	NR	NR	NR	6.9%	5.7%
California Water Service Gp	CWT	44.83	0.213	0.65	49%	40.0	785.3	5.1%	5.9%	5.4%
Essential Utilities, Inc.	WTRG	41.05	0.251	0.90	54%	200.0	5,174.6	3.9%	6.5%	6.9%
Middlesex Water Co	MSEX	64.54	0.273	0.70	43%	7.2	237.9	3.0%	5.7%	5.7%
SJW Corp	SJW	61.42	0.320	0.80	58%	50.0	1,316.0	3.8%	6.1%	6.3%
York Water Co	YORW	43.69	0.180	0.80	39%	5.5	96.6	5.7%	5.6%	6.3%
Average		64.53	0.296	0.76	49%	$ 97.3	$ 2,497.2	4.8%	6.0%	6.0%

Terminal Growth Rate (DCF)	**3.9%**	[10]
Risk-Free Rate (CAPM)	**1.5%**	[11]
Equity Risk Premium (CAPM)	**6.0%**	[12]
Average Cost of Equity Result	**6.0%**	[13]

[1] Average stock prices from OCA Exhibit DJG-19
[2] 2020 Q3 reported quarterly dividends per share. Nasdaq.com
[3], [4], [5], [6] Value Line Investment Survey
[7] = [5] / [6]
[8] Quarterly DCF Approximation = [d0(1 + g)0.25/P0 + (1 + g)0.25]4 - 1 (where d = dividend, p = price, and g = growth)
[9] = [11] + [3] * [12]
[10] Growth rate from OCA Exhibit DJG-20
[11] Risk-free rate from OCA Exhibit DJG-21
[12] Equity risk premium from OCA Exhibit DJG-23
[13] = Average of [8] and [9]
NR = not reported

DCF Stock and Index Prices

Ticker	^GSPC	AWR	AWK	ARTNA	CWT	WTRG	MSEX	SJW	YORW
30-day Average	3391	75.85	149.81	35.02	44.83	41.05	64.54	61.42	43.69
Standard Deviation	80.7	2.27	6.42	1.21	1.81	1.55	2.72	1.19	1.56
09/17/20	3357	71.23	141.02	34.20	42.27	39.55	62.80	61.10	42.69
09/18/20	3319	69.99	138.28	34.41	41.85	38.98	62.42	59.91	43.89
09/21/20	3281	74.37	139.72	33.71	42.79	39.10	62.09	60.62	42.14
09/22/20	3316	73.49	140.17	33.14	42.87	39.18	61.57	60.66	41.70
09/23/20	3237	72.03	138.05	32.87	41.66	38.32	59.64	58.56	40.50
09/24/20	3247	72.92	140.66	33.10	42.23	38.84	60.63	59.81	40.97
09/25/20	3298	73.84	144.23	33.52	42.73	39.36	61.57	60.81	41.69
09/28/20	3352	74.33	144.55	34.03	43.55	39.71	62.37	61.23	43.21
09/29/20	3335	74.45	143.70	34.06	43.44	39.56	62.48	61.10	42.95
09/30/20	3363	74.95	144.88	34.22	43.45	40.03	62.15	60.86	42.27
10/01/20	3381	76.10	148.57	34.53	44.64	40.61	63.42	61.60	42.60
10/02/20	3348	76.72	148.96	34.83	44.90	41.43	63.02	61.56	42.68
10/05/20	3409	76.40	151.89	34.83	44.83	41.55	63.18	61.93	42.94
10/06/20	3361	76.78	152.49	34.39	45.02	40.91	62.94	60.11	42.54
10/07/20	3419	75.92	154.51	34.65	44.63	40.81	63.35	61.27	43.21
10/08/20	3447	76.54	155.85	34.85	45.01	41.48	64.32	61.27	43.66
10/09/20	3477	76.67	155.75	34.56	44.93	41.41	64.28	61.28	43.58
10/12/20	3534	79.11	158.32	36.01	46.43	42.02	67.04	62.56	45.33
10/13/20	3512	78.28	156.08	35.92	45.72	41.87	65.52	62.24	45.02
10/14/20	3489	77.37	155.76	36.17	45.36	41.36	64.65	61.30	44.48
10/15/20	3483	77.31	155.86	36.92	45.71	41.25	65.78	61.49	44.92
10/16/20	3484	77.62	155.72	36.92	46.27	41.62	66.88	61.65	45.23
10/19/20	3427	76.68	154.52	36.90	45.66	41.33	67.33	61.03	45.11
10/20/20	3443	76.52	153.15	36.27	46.16	41.87	66.47	60.66	45.37
10/21/20	3436	77.14	152.25	36.32	46.69	42.34	67.43	61.57	45.48
10/22/20	3453	77.77	153.61	36.46	47.55	43.76	68.61	62.88	45.74
10/23/20	3465	79.23	154.08	36.08	48.18	44.26	69.70	64.29	46.27
10/26/20	3401	77.80	154.01	36.01	47.34	43.66	68.74	63.54	45.69
10/27/20	3391	78.09	154.62	35.95	47.30	43.22	68.97	63.79	45.19
10/28/20	3271	75.80	153.00	34.87	45.72	42.16	66.82	61.84	43.80

All prices are adjusted closing prices reported by Yahoo! Finance, http://finance.yahoo.com

Terminal Growth Determinants	Rate	
Nominal GDP	3.9%	[1]
Real GDP	1.9%	[2]
Inflation	2.0%	[3]
Risk Free Rate	1.5%	[4]
Highest	**3.9%**	

[1],[2],[3] CBO, The 2019 Long-Term Budget Outlook, p. 5447, Jun. 2020

[4] From OCA Exhibit DJG-21

Date	Rate
09/16/20	1.45%
09/17/20	1.43%
09/18/20	1.45%
09/21/20	1.43%
09/22/20	1.42%
09/23/20	1.42%
09/24/20	1.40%
09/25/20	1.40%
09/28/20	1.42%
09/29/20	1.41%
09/30/20	1.46%
10/01/20	1.45%
10/02/20	1.48%
10/05/20	1.57%
10/06/20	1.56%
10/07/20	1.60%
10/08/20	1.57%
10/09/20	1.58%
10/13/20	1.52%
10/14/20	1.50%
10/15/20	1.52%
10/16/20	1.52%
10/19/20	1.55%
10/20/20	1.60%
10/21/20	1.62%
10/22/20	1.67%
10/23/20	1.64%
10/26/20	1.59%
10/27/20	1.57%
10/28/20	1.56%
Average	**1.51%**

*Daily Treasury Yield Curve Rates on 30-year T-bonds, http://www.treasury.gov/resources-center/data-chart-center/interest-rates/

CAPM Implied Equity Risk Premium Estimate

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]
Year	Market Value	Operating Earnings	Dividends	Buybacks	Earnings Yield	Dividend Yield	Buyback Yield	Gross Cash Yield
2014	18,245	1,004	350	553	5.50%	1.92%	3.03%	4.95%
2015	17,900	885	382	572	4.95%	2.14%	3.20%	5.33%
2016	19,268	920	397	536	4.77%	2.06%	2.78%	4.85%
2017	22,821	1,066	420	519	4.67%	1.84%	2.28%	4.12%
2018	21,027	1,282	456	806	6.10%	2.17%	3.84%	6.01%
2019	26,760	1,305	485	729	4.88%	1.81%	2.72%	4.54%

Cash Yield	4.96%	[9]
Growth Rate	5.37%	[10]
Risk-free Rate	1.51%	[11]
Current Index Value	3,391	[12]

	[13]	[14]	[15]	[16]	[17]
Year	1	2	3	4	5
Expected Dividends	177	187	197	208	219
Expected Terminal Value					3724
Present Value	165	162	159	156	2750
Intrinsic Index Value	3391	[18]			
Required Return on Market	7.5%	[19]			
Implied Equity Risk Premium	**6.0%**	[20]			

[1-4] S&P Quarterly Press Releases, data found at https://us.spindices.com/indices/equity/sp-500, Q4 2018
[1] Market value of S&P 500
[5] = [2] / [1]
[6] = [3] / [1]
[7] = [4] / [1]
[8] = [6] + [7]
[9] = Average of [8]
[10] = Compound annual growth rate of [2] = (end value / beginning value)^ $^{1/4}$-1
[11] Risk-free rate from OCA Exhibit DJG-21
[12] 30-day average of closing index prices from OCA Exhibit DJG-19 (^GSPC column)
[13-16] Expected dividends = [9]*[12]*(1+[10])^{n} ; Present value = expected dividend / (1+[11]+[19])^{n}
[17] Expected terminal value = expected dividend * (1+[11]) / [19] ; Present value = (expected dividend + expected terminal value) / (1+[11]+[19])^{n}
[18] = Sum([13-17]) present values.
[19] = [20] + [11]
[20] Internal rate of return calculation setting [18] equal to [12] and solving for the discount rate

CAPM Equity Risk Premium Results

IESE Business School Survey	5.6%	[1]
Graham & Harvey Survey	4.4%	[2]
Duff & Phelps Report	6.0%	[3]
Damodaran (highest)	5.8%	[4]
Garrett	6.0%	[6]
Average	**5.5%**	
Highest	**6.0%**	

[1] IESE Business School Survey 2020
[2] Graham and Harvey Survey 2018
[3] Duff & Phelps, 3-5-2020
[4], [5] http://pages.stern.nyu.edu/~adamodar/ , 10-1-20
[6] From OCA Exhibit DJG-22

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough	:	Docket No. A-2020-3019634

VERIFICATION

I, David J. Garrett, hereby state that the facts set forth in my Direct Testimony, OCA Statement 1, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: December 22, 2020

Signature: _____

*300719

David J. Garrett

Consultant Address: Resolve Utility Consulting, PLLC
101 Park Avenue
Suite 1125
Oklahoma City, OK 73102

OCA Statement 1S

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Re: Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough	: : : : :	Docket No. A-2020-3019634

SURREBUTTAL TESTIMONY

OF

DAVID J. GARRETT

ON BEHALF OF

THE PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

January 13, 2021

TABLE OF CONTENTS

I. INTRODUCTION

Q. State your name and occupation.

A. My name is David J. Garrett. I am a consultant specializing in public utility regulation. I am the managing member of Resolve Utility Consulting, PLLC. My business address is 101 Park Avenue, Suite 1125, Oklahoma City, Oklahoma 73102.

Q. Have you previously filed testimony in this proceeding?

A. Yes. I provided direct testimony in OCA Statement 1 on December 22, 2020, on behalf of the Pennsylvania Office of Consumer Advocate ("OCA"). A summary of my qualifications is included in my direct testimony. My direct testimony addressed the application filed by Pennsylvania-American Water Company ("PAWC" or the "Company") for the acquisition of the Borough of Royersford's (the "Borough") assets related to its wastewater collection system (the "Wastewater System") and proposed adjustments to fair market value ("FMV") approaches conducted by the Utility Valuation Experts ("UVE") in their appraisals for the Company and the Borough.

Q. What is the purpose of your surrebuttal testimony?

A. My surrebuttal testimony responds to the rebuttal testimonies of Harold Walker, III of Gannett Fleming, who sponsors the FMV appraisals commissioned by the Borough, and Jerome C. Weinert, who sponsors the appraisal commissioned by PAWC.

Q. Did any of the arguments raised by Mr. Walker or Mr. Weinert in their rebuttal testimonies persuade you to change your opinions as stated in your direct testimony?

A. No. In addition, to the extent I do not address a particular statement or position raised in the rebuttal testimonies does not constitute my agreement with the same.

II. VALUATION APPROACH WEIGHTING

A. Response to Mr. Walker's Valuation Weightings Rebuttal Testimony

Q. Please summarize your position regarding the weighting applied to each valuation approach.

A. In my direct testimony, I proposed an equal weighting (33.3% each) of the three valuation approaches.

Q. Does there appear to be a discrepancy in Mr. Walker's testimony regarding the weightings issue?

A. Yes. Mr. Walker seems to be confused not only about the weightings I applied, but also the weightings that *he* applied. In his direct testimony, he states, "In our opinion, each of the valuation approaches utilized in our appraisal is relevant. Accordingly, we assign an equal weight to the result of each approach."[1] Likewise, there is a table on p. 13 of his direct testimony that confirms the equal weightings he applied.[2] In this case, I also applied equal weightings (33.3%) to each of the approaches, as clearly set forth in my testimony and workpapers.[3] Thus, Mr. Walker and I both applied equal weightings. However, in his rebuttal testimony, Mr. Walker includes an entire Q&A with very detailed and harsh criticisms about the weightings I used, which are the same as his. On page 26 of Mr. Walker's rebuttal testimony, he states:

---

[1] Borough of Royersford, Statement No. 2.0, Direct Testimony of Harold Walker, III, p. 27 (emphasis added).

[2] *Id.* at p. 13.

[3] *See* OCA Statement 1, p. 7, Figure 3.

Q. WOULD YOU RECOMMEND USING THE WEIGHTINGS MR. GARRETT APPLIED TO HIS RESULT OF THE VALUATION APPROACHES SHOWN?

A. No, Mr. Garrett recommended substantial changes to each valuation approach. Mr. Garrett does not justify the weightings he applied to the valuation approaches shown. Mr. Garrett did not conduct an appraisal. Mr. Garrett assumes weightings remain the same regardless of the results of the valuation approaches which is "putting the wagon ahead of the horse." An appraisal is an opinion of fair market value and is not a "mechanical" process. When information changes, opinions, weightings, methodologies, and techniques change as well.

By attempting to analyze and adjust Gannett Fleming's appraisal, Mr. Garrett is doing no more than selectively choosing the parts of the appraisal that are to his liking while jettisoning those parts that are not. Depending on the quantity and quality of the results, weights applied under fair market value differ, but Mr. Garrett did not do this.[4]

Mr. Walker is essentially rebutting his own position regarding the weightings issue in this case.

Q. Do you agree with Mr. Walker's testimony regarding weightings?

A. That is a difficult question to answer under the circumstances. On a technical level, I do agree with Mr. Walker's weightings in this case because, mathematically speaking, he applied equal weightings to the three approaches, as I did. On a narrative level, I both agree and disagree with several aspects of Mr. Walker's rebuttal testimony here. First, I would agree that when information changes, it is reasonable for weightings and opinions to change too. In this case, I (and Mr. Walker) applied equal weightings to the three approaches, but it is an issue on which reasonable experts could disagree. Thus, Mr. Walker is incorrect when he states that I assume weightings remain the same regardless of the results of the valuation approaches.

---

[4] Borough of Royersford Statement No. 2R, Rebuttal Testimony of Harold Walker, III, pp. 26-27.

B. Response to Mr. Weinert's Valuation Weightings Rebuttal Testimony

Q. Please summarize Mr. Weinert's rebuttal testimony regarding the weightings applied to each valuation approach.

A. Mr. Weinert applies weightings of 50%, 10%, and 40% to the cost, market and income approaches, respectively.[5]

Q. Do you agree with Mr. Weinert's weightings?

A. No, not in this case. However, as discussed above, I believe it is an issue that reasonable experts could disagree on. In fact, both UVEs in this case disagree with each other regarding weightings. I believe it is an issue that should be considered on a case-by-case basis. In this case, equal weightings are reasonable.

III. MARKET APPROACH

A. Response to Mr. Walker's Market Approach Rebuttal Testimony

Q. Please summarize Mr. Walker's rebuttal testimony regarding your proposed adjustments to his Market Approach valuation.

A. Mr. Walker claims my opinions regarding his market value estimate are "in direct violation of Section 1329."[6] Mr. Walker also disagrees with my adjustments to his selected transactions method as part of his Market Approach. Specifically, Mr. Walker disagrees with my proposal to use the ratemaking rate bases approved by the Commission for each transaction, rather than the purchases prices (as proposed by Mr. Walker). Mr. Walker also

---

[5] PAWC Statement No. 4-R, Rebuttal Testimony of Jerome C. Weinert, p. 30, lines 1-19.

[6] Borough of Royersford Statement No. 2R, Rebuttal Testimony of Harold Walker, III, p. 21.

disagrees with my proposal to use OCNLD data rather than financial statement data in the selected transactions method.[7]

Q. Did Mr. Walker's criticisms of your proposal to use the ratemaking rate base values approved by the Commission instead of the purchase prices for each transaction persuade you to change your opinion?

A. No. Mr. Walker states that "[t]he selected transaction method relies on and reflects information that was known at the time the winning purchase bid (price) was given. After all, the winning purchase bid (price) could not have reflected information that was not available when it was made."[8] There are two notable problems with this argument. First, Mr. Walker's argument misses the point. The entire purpose of 1329 proceedings is to establish a fair market value. By establishing a fair market value that is lower than the winning bid / purchase price in any particular case, the Commission is determining that the winning bid does not comport with the fair market value of a particular transaction. For example, the purchase price in the Limerick transaction was $75.1 million; however, the fair market value, as determined by the Commission, was $64.4 million. Suppose the winning bid had been even higher at $90 million – even further divergent from the fair market value. Yet this is still the figure Mr. Walker would rely on in his selected transaction analysis, despite the fact that it would be grossly excessive. We are using the selected transactions method (and all other models in the case) for the sole purpose of helping the Commission determine the fair market value in this proceeding. It only makes sense that we would incorporate that same figure from comparable transactions as part of

---

[7] *Id.* at pp. 21-26.

[8] *Id.* at p. 24.

the selected transactions method to help the Commission determine the fair market value in this proceeding.

The same line of reasoning supports the use of OCNLD determinations rather than financial statement data. Mr. Walker asserts that "[t]he OCNLD determination in the Section 1329 proceedings could not have been known ex ante at the time the winning purchase bid (price) was given."[9] Again, Mr. Walker inappropriately focuses on the winning bid, which could be unreasonably high or low in a given transaction.

B. Response to Mr. Weinert's Market Approach Rebuttal Testimony

Q. Please summarize Mr. Weinert's rebuttal testimony regarding your proposed adjustments to his Market Approach valuation.

A. Mr. Weinert disagrees with my adjustments to his Market Approach valuation. Specifically, Mr. Weinert says that under the Market Approach, appraisers should look at "market sales agreed-to between willing buyers and sellers. . . ."[10] instead of considering Commission-approved fair market values.

Q. Do you agree with Mr. Weinert?

A. No. In fact, I think Mr. Weinert's assertion actually provides support for my position. By considering a negotiated purchase price in Section 1329 transactions, Mr. Weinert is in fact not necessarily considering "market sales" between buyers and sellers. The Commission's approved fair market value, based on all the evidence presented in the case, is what the ratemaking rate base will ultimately be. To my understanding, once the Commission

---

[9] *Id.* at p. 22, lines 19-21.

[10] Aqua Statement No. 5-R, Rebuttal Testimony of Jerome C. Weinert, p. 10, lines 1-2.

determines a fair market value under Section 1329, either the buyer or seller to the transaction can still choose not to proceed with the transaction, subject to the terms of the APA. Thus, if the determined fair market value is less than the originally-negotiated purchase price, but the buyer and seller nonetheless agree to proceed with the transaction under the Commission-determined fair market value, then we still have a *market sale agreed to between buyers and sellers*, as stated by Mr. Weinert.

Furthermore, a transaction regulated under Section 1329 fair market valuation is clearly different from a transaction within a competitive market. The Section 1329 process is used for determining the ratemaking rate base, which will be used for setting rates for utility customers in future cases. While the use of the "purchase price" may be appropriate in an open and competitive market, it is not a reasonable substitute for the Commission oversight within a fair market value utility appraisal. In other words, if negotiated purchase prices were as reliable in this context as suggested by Mr. Weinert, then we would not need the regulation inherent in the 1329 proceedings.

A 1329 transaction is not the same as a purely market-driven transaction. For example, when a house is sold, appraisers would consider comparable *market sales agreed-to between willing buyers and sellers* such as Mr. Weinert describes. However, in competitive marketplace transactions, both parties have a natural financial incentive to maximize their value. In that case, value is maximized by seeking the lowest price (from the buyer's perspective) or seeking the highest price (from the seller's perspective). Those same natural financial incentives are not present in the transaction at hand, and the very existence of Section 1329 regulation confirms this concept.

Q. Mr. Weinert also disagrees with your use of a straight average rather than a weighted average in the final fair market value-to-RCNLD ratio. Do you have a response to this testimony?

A. Yes. Instead of simply averaging the ratios determined for each transaction by dividing the fair market value (or purchase price in Mr. Weinert's case) by the RCNLD, Mr. Weinert divided the sum of the purchase price amounts by the sum of the RCNLD amounts. Mr. Weinert's approach effectively places a greater weight on larger transactions, while my calculation, as acknowledged by Mr. Weinert, "places equal weight on each transaction."[11] In my opinion, it is preferable to place an equal weighting on each transaction unless there is a good reason to place more weight on larger transactions.

IV. COST APPROACH

A. Response to Mr. Walker's Cost Approach Rebuttal Testimony

Q. Please summarize Mr. Walker's rebuttal testimony regarding your Cost Approach recommendations.

A. Mr. Walker claims that my recommended cost approach adjustments "are in direct violation of Section 1329 of the Public Utility Code."[12] Mr. Walker also disagrees with my recommended service lives for several of the plant accounts, and he claims that I did not conduct a statistical analysis to support my recommendations.[13]

---

[11] *Id.* at p. 13, line 10.

[12] Borough of Royersford Statement No. 2R, Rebuttal Testimony of Harold Walker, III, p. 5.

[13] *Id.* at pp. 4-13.

Q. Are your proposed adjustments under the cost approach in violation of Section 1329?

A. No. Indeed, the methods I employed as part of my cost approach adjustments are substantially similar as those used by both UVEs. Mr. Walker and I simply have different opinions regarding the Iowa curves for a few accounts. In every case in which I have testified regarding depreciation service lives, there are differing opinions regarding service lives, often among multiple experts in the case. Service life adjustments using Iowa curves involve the consideration of a number of potential parameters regarding curve shapes and average lives. Moreover, the process is designed to estimate remaining lives many years in the future. Thus, it should be anticipated that there would be a differing of opinions among various experts regarding service life estimates. Furthermore, it is my understanding that OCA witnesses have proposed similar service life adjustments in prior Section 1329 cases and have not been found to be "in direct violation" of Section 1329.

Q. Did Mr. Walker and Mr. Weinert propose the same Iowa curves and service lives for the depreciable accounts in this case?

A. No. In fact, there is a 25-year discrepancy between these two experts on Account 361.23. Again, a differing of opinions regarding service lives is not surprising and should be expected. However, I did not see either UVE accuse the other of being in direct violation of Section 1329 because of a mere difference of opinions over a few Iowa curves.

Q. Are several of your proposed service lives adjustments to Mr. Walker's cost approach based on the same Iowa curve used by Mr. Weinert?

A. Yes. The table below compares the Iowa curve recommendations among the experts.

Figure 1:
Iowa Curve Comparison

Account	Description	GF Curve	AUS Curve	OCA Curve
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	65-R3	45-R4	45-R4
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	70-R2.5	55-R4	55-R4
355.30	POWER GENERATION - PUMPING	30-S2	35-R3	30-R3
360.21	COLLECTION SEWERS - FORCE - MAINS	70-R2.5	75-R3	60-R2.5
361.21	COLLECTION SEWERS - GRAVITY - MAINS	70-R2.5	80-R2.5	60-R2.5
361.22	COLLECTION SEWERS - GRAVITY MAINS - RELINING	50-R2.5	60-R2.5	50-R2.5
361.23	COLLECTION SEWERS - GRAVITY - MANHOLES	65-R3	80-R2.5	60-R3
363.20	SERVICES TO CUSTOMERS	60-R2.5	45-R3	45-R3

As shown in the table, for the majority of the accounts at issue, my proposed adjustments to Mr. Walker's cost approach are reflective of the Iowa curves proposed by the other UVE in this case, Mr. Weinert.

Q. Mr. Walker compares your proposed Iowa curves in this case with those from other cases in which you have testified. Is there a notable distinction between those cases and the present case?

A. Yes. In the cases from Indiana and South Carolina cited in Mr. Walker's testimony, the utilities in that case produced a vast amount of historical retirement data to support their proposed service lives. All depreciation experts had access to that data in those cases, and they were able to base their proposed Iowa curves on that historical data. In contrast, no such data was produced in this case.

Q. On page 5 of his rebuttal testimony, Mr. Walker claims that you did not conduct a statistical analysis to support your service life recommendation. Do you have a response to this statement?

A. Yes. First, it appears that neither of the UVEs in this case performed the type of statistical analysis Mr. Walker seems to be referring to. As discussed above, the type of data required for the statistical analysis Mr. Walker is apparently referring to was not provided by the Borough in this case. Instead, Mr. Walker summarized his service life analysis in a single

sentence: "We determined the average service lives of depreciable assets based on the materials used for construction and how long the depreciable assets are likely to meet service demands."[14] This is a conclusory statement without support. In contrast, the type of analysis typically performed in connection with utility depreciation studies, including the study performed in connection with the other cases cited in my direct testimony, involves analyzing tens of thousands of data points comprising the utility's historical plant data in order to develop empirical indications of service life characteristics in the form of observed survivor curves.

B. Response to Mr. Weinert's Cost Approach Rebuttal Testimony

Q. Please summarize Mr. Weinert's rebuttal testimony regarding your Cost Approach recommendations.

A. Mr. Weinert disagrees with my proposed service lives for several accounts. A comparison of our positions is outlined in the table above.

Q. What arguments does Mr. Weinert offer in his rebuttal testimony in support of his recommendation?

A. Mr. Weinert refers to depreciation studies conducted by Gannett Fleming for Aqua Pennsylvania, Inc. and Pennsylvania American Water Company.[15]

Q. Do you find Mr. Weinert's arguments persuasive?

A. No. There are several problems with Mr. Weinert's reliance on the Gannett Fleming depreciation studies in support of his service life proposals. First, these depreciation

---

[14] Borough of Royersford Statement No. 2.0, Direct Testimony of Harold Walker, III, p. 17, lines 10-14.

[15] PAWC Statement No. 4-R, Rebuttal Testimony of Jerome C. Weinert, pp. 15-20.

studies were not conducted on the assets at issue in this case. Moreover, Mr. Weinert is relying on his own interpretation of the observed life tables and other data from those depreciation studies, which I would not necessarily agree with if I had the opportunity to fully analyze the data from those depreciation studies. The type of data used to conduct the depreciation studies for Aqua Pennsylvania, Inc. and Pennsylvania American Water Company (historical retirement data, observed life tables, etc.) highlight the contrast in the lack of such data for the Borough's assets. Further, while Mr. Weinert notes the similarity in his service life proposals in this case, and those of Gannett Fleming's in other cases, he does not explain or note the discrepancy between his and Mr. Walker's service life proposals in *this* case. Each UVE renders harsh criticism of my service life proposals in this case yet are silent regarding the fact that their service life proposals are different from each other's.

V. INCOME APPROACH

A. Response to Mr. Walker's Income Approach Rebuttal Testimony

Q. Please summarize Mr. Walker's rebuttal testimony regarding your Income Approach adjustments.

A. As with the market and cost approaches discussed above, Mr. Walker claims that my proposed adjustments to his income approach estimates are "in direct violation of Section 1329."[16] He also criticizes the inputs and assumptions I used in my Discounted Cash Flow ("DCF") Model and cost of equity models.[17]

---

[16] Borough of Royersford Statement No. 2R, Rebuttal Testimony of Harold Walker, III, p. 5.

[17] *Id.* at pp. 14-21.

Q. Do you agree with Mr. Walker's criticisms of your use of a constant growth DCF Model in your income approach adjustment?

A. No. When using the DCF Model for mature, low-growth firms such as utility companies, whether in cost of equity derivations or valuation estimates, it is reasonable to assume a constant growth rate based on the cash-flow or dividends from the current period. In contrast, younger firms with high growth opportunities may require the use of varying cash flows and growth rates over different periods. The vast majority of DCF Models used to estimate cost of equity in utility rate proceedings are some variation of a constant-growth DCF Model, consistent with the DCF Model I used in this case. For example, Mr. Walker and I both recently used a constant-growth DCF Model before the Commission in Docket No. R-2020-3020256 (City of Bethlehem) as part of our cost of equity estimates. In that case, in other words, we are not assuming a different amount of cash flows (or dividends) in future years (other than growing each year by a constant growth rate). In contrast, Mr. Walker states in this case that he does not believe it is appropriate to use the cash flow from a single year in the DCF Model as it relates to the income approach valuation. I am not suggesting it is wrong or inappropriate to assume different levels of cash flow or growth rates in different periods in a DCF Model; however, I believe it is not necessary in this case.

Q. Mr. Walker also criticizes your discount rate and capital structure estimates. Do you agree with his testimony?

A. No. Mr. Walker states that my discount rate should "be based on a municipality's discount rate, not an investor-owned discount rate."[18] Such an approach, however, is inconsistent

[18] Borough of Royersford Statement No. 2R, Rebuttal Testimony of Harold Walker, III, p. 19.

with the use of an investor-owned proxy group for other inputs to the cost of equity and DCF Models. Furthermore, it is not practical to estimate the required return on equity of a municipality for valuation purposes because such a low cost of equity (due to very low risk) would only exist for the entity as a municipality. In other words, some amount of consideration should be given to the fact that the nature of the entity will change once it ceases to be a municipality (i.e., it will have higher risk). Furthermore, it would be inconsistent to use only some elements of the investor-owned proxy group, while using entity-specific elements and inputs that are unique to a municipality, such as a 100% debt ratio. Several of the key inputs taken from the proxy group, such as the beta term used to assess a firm's susceptibility to market risk, are necessarily connected with other financial characteristics of those firms, such as capital structure and the cost of debt. For example, it would be highly unlikely to observe a firm with a beta of less than 1.0 and a debt ratio of 100%. To be consistent, I used the proxy group to gather all of these required inputs to the CAPM and DCF Models. Another point worth making here is that my cost of equity estimate is actually lower than Mr. Walker's estimates. All else held constant, a lower cost of equity estimate will produce a higher result under the income approach.

B. Response to Mr. Weinert's Income Approach Rebuttal Testimony

Q. Please summarize Mr. Weinert's rebuttal testimony regarding your Income Approach adjustments.

A. Mr. Weinert criticizes my discount rate as being too low when compared with the awarded returns on equity in rate proceedings.

Q. Do you agree with Mr. Weinert's rebuttal testimony?

A. Mr. Weinert is correct that my cost of equity estimate in my income approach adjustment is lower than the awarded returns in base rate proceedings. However, the market-based cost of equity and the authorized return in rate proceedings are different conceptually. The cost of equity is driven by market forces (primarily market risk and interest rates), while authorized returns are simply the return on equity authorized in a rate proceeding. The discrepancy between utility cost of equity and commission-awarded returns is discussed at length in my rate of return testimony.[19] From a valuation standpoint, I believe it is much more appropriate to focus on market-based cost of equity rather than commission-awarded ROEs. As a result, my adjustments to Mr. Weinert's cost approach included cost of equity estimates that are lower than his.

Q. Does the fact that your cost of equity estimates are notably lower than Mr. Weinert's estimate counter other claims made by Mr. Weinert about your testimony?

A. Yes. Mr. Weinert claims that I am "improperly cherry picking adjustments to AUS Consultants' appraisal to meet his client's desired result of a lower fair value rate base than is directed under Section 1329." This statement is false and regrettable for several reasons. First, my client has never expressed a "desired result" or particular outcome to me, and such a result was not part of my retention or scope of work in this case as an expert. Second, Section 1329 does not "direct" a particular fair value rate base. What is considered a "fair value" is a matter of opinion that any two experts are not likely to agree upon. Finally, the several pages of rebuttal testimony Mr. Weinert spends on attacking my cost of equity estimate as being too low directly contradicts his claims that I am "cherry picking" my

[19] *See e.g.*, Direct Testimony of David J. Garrett, Docket No. 2020-3020256 (City of Bethlehem).

adjustments to produce a lower fair value. This is because, all else held constant, a lower cost of equity estimate will produce a *higher* indicated valuation under the income approach. If I had used a cost of equity that was closer to the authorized returns in base rate proceedings, it would have cut my income approach result *by more than half.* Instead, my approach to estimating cost of equity in this case is quite consistent with my approach to estimating cost of equity in other cases. More importantly, it provides further indication that Mr. Weinert's income approach estimate is notably high.

Q. Does this conclude your surrebuttal testimony?

A. Yes. To the extent I did not specifically address a particular issue does not constitute my agreement with such issue. I reserve the right to modify or supplement my testimony if additional information is received.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough	:	Docket No. A-2020-3019634

VERIFICATION

I, David J. Garrett, hereby state that the facts set forth in my Surrebuttal Testimony, OCA Statement 1-SR, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: January 13, 2021
*302272

Signature: _____
David J. Garrett

Consultant Address: Resolve Utility Consulting, PLLC
101 Park Avenue
Suite 1125
Oklahoma City, OK 73102

OCA Statement 2

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough	Docket No. A-2020-3019634

DIRECT TESTIMONY

OF

NOAH D. EASTMAN

ON BEHALF OF

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

December 22, 2020

Table of Contents

Introduction

Q. Please state your name, business address and occupation.

A. My name is Noah D. Eastman. My business address is 555 Walnut Street, Forum Place, 5th Floor, Harrisburg, Pennsylvania 17101. I am currently employed as a Regulatory Analyst by the Pennsylvania Office of Consumer Advocate (OCA).

Q. Please describe your educational background and qualifications to provide testimony in this case.

A. I have a bachelor's degree in Economics with a Business Concentration from Shippensburg University. My educational background and qualifications are described in Appendix A.

Q. What was your assignment in this case?

A. My assignment in this case was to review the application and supporting documents filed by Pennsylvania American Water Company (PAWC) for the acquisition of the Borough of Royersford (Borough or Royersford) wastewater system. The application was filed by PAWC pursuant to Sections 1102 and 1329 of the Public Utility Code.

Q. What issues are you addressing in this case?

A. I am providing an analysis of whether the acquisition, if approved, would provide substantial affirmative public benefits.

Q. Please describe the general nature of PAWC's application.

A. PAWC's application provides that the ratemaking rate base for the acquired system, pursuant to Section 1329(c)(2) of the Public Utility code, is $13,000,000.

Q. Are there any additional expenses that the Company will record for ratemaking purposes with respect to its Section 1329 application?

A. PAWC Witness Nevirauskas states in his testimony (PAWC Statement No. 3) that the "transaction and closing costs include the UVE's appraisal fee and the buyer's closing costs, including reasonable attorney fees." Appendix A-14-a, p. 13, lines 21-22. Mr. Nevirauskas notes that PAWC must justify those costs in a future base rate proceeding. Mr. Nevirauskas also notes that the exact costs cannot be known until after the transaction closes but anticipates the closing costs will be $605,650 to $815,650. Appendix A-14-a, PAWC Statement No. 3, p. 14, lines 8-9.

Q. What other proposals does PAWC make pursuant to Section 1329 of the Public Utility Code?

A. Mr. Nevirauskas states that PAWC intends to utilize the following provisions of Section 1329:

1. The collection of a Distribution System Improvement Charge (DSIC) related to the acquired system prior the first base rate case with the system included in rate base;
2. The accrual of Allowance of Funds Used During Construction (AFUDC) on non-DSIC eligible post-acquisition improvements; and
3. The deferral of depreciation for book and ratemaking purposes on non-DSIC eligible post-acquisition improvements. Appendix A-14-a, PAWC Statement No. 3, p. 16-18.

Q. Do you have any recommendations regarding these proposals?

A. Regarding the application of the DSIC to Royersford customers, the Commission's regulations regarding Long Term Infrastructure Improvement Plans (LTIIP) require utilities to have a supporting, approved LTIIP in place as a condition of DSIC recovery. 52 Pa. Code § 121. As such, PAWC's LTIIP, which Mr. Nevirauskas indicates will be revised to include the Borough system, should be filed and approved before PAWC begins charging the DSIC to the acquired customers. Appendix A-14-a, PAWC Statement 3, p. 16, lines 16-18. In addition, the proposed projects reflected in the revised LTIIP should be in addition to, and should not reprioritize, any capital improvements that PAWC has already committed to undertake for existing customers. Reprioritization of capital improvements would disadvantage existing PAWC customers. Regarding the AFUDC claim and deferred depreciation claim, the OCA agrees with PAWC Witness Nevirauskas (Appendix A-14-a, PAWC Statement 3, p. 17, lines 15-17) that these should be addressed in PAWC's *next* base rate case.

Public Benefits

Q. Did PAWC provide specific public benefits of the acquisition?

A. The Borough Manager of Royersford, Mr. Leonard, provided a list of ways the acquisition would benefit the Borough. Examples of the benefits include: financial proceeds increasing the reserve fund balance for borough use, reallocation of administrative time and expense away from wastewater business, economies of scale and synergies due to shared support service from already existing PAWC water service provided to the Borough

residents, and increased tax revenue from the taxable property of the system post acquisition. Appendix A-13-a, Borough of Royersford, Statement No. 1, p. 3-4.

PAWC witness Michael J. Guntrum (PAWC Statement 2) presents the customer service enhancements that will benefit the customers of the Borough upon acquisition. These include a call center that is available from 7:00 a.m. to 7:00 p.m. Monday through Friday, and "emergency support 24 hours a day, seven days a week." Appendix A-14-a, PAWC Statement No. 2, p. 14, lines 20-21. Online bill payment options are available, with multiple payment methods. Id. at 15. Customer Assistance Programs, which provide grants and/or discounts to help make bills more affordable to customers, are also available. Id.

PAWC witness Mr. Salvo (PAWC Statement 1) also suggests benefits to all PAWC customers:

> [T]he transaction will benefit PAWC's existing customers in the long-term by expanding PAWC's customer base. There will be no immediate rate impact on PAWC's existing customers. In the long-term, the Transaction will help PAWC keep rates reasonable for all of its customers. By adding additional connections to the entire PAWC system, there are more customers to share the future infrastructure investment costs which promotes stable rates across the entire PAWC system.

Appendix A-14-a, PAWC Statement No. 1, p. 17, lines 11-16. He also states that PAWC is a large and long-established public utility with expertise to operate the Royersford System in a safe and efficient manner. Id at 15.

Q. Are any of these proposed customer service benefits already offered by the Borough of Royersford?

A. Yes. In response to OCA-II-8, Mr. Leonard states that the Borough offers online bill payment to all its customers. The Borough does not offer 24/7 emergency service to its customers, but they are available during the hours of 8:00 A.M. to 4:00 P.M. Monday-Friday.[1] The Borough offers no customer assistance programs. In response to OCA-II-9, PAWC states that 23 water customers in the Borough qualify for customer assistance. As such, it is reasonable to assume some of those customers would also qualify for customer assistance on their wastewater bills as well.

Q. In response to Mr. Salvo, what is the measurable impact of the acquisition on existing PAWC customers?

A. Currently, the Royersford system has revenues of approximately $860,000.[2] However, PAWC estimates the revenue requirement under its ownership on page 4 of Data Request #1. That revenue requirement is more than $2.06 million.[3] This shortfall is discussed below but I note here, in response to Mr. Salvo, that the acquisition is presented with the assumption that a portion of Royersford's revenue requirement will be collected from existing PAWC customers. Attachment A-14-a, PAWC Statement 1, p. 12, lines 10-13 and PAWC Statement 3, p. 8, lines 8-12. PAWC has not quantified any benefits for the existing PAWC customers, however, what can be quantified is PAWC's proposed subsidization of the post-acquisition Royersford system by existing PAWC wastewater and

[1] royersfordborough.org
[2] Appendix E of Application
[3] Data Request #1, pg. 4

water customers. As such, the alleged, unquantified benefits of the proposed transaction are outweighed by the proposed, quantifiable increase in revenue requirement to PAWC's ratepayers.

Q. Has there been any evidence of the Borough of Royersford providing inadequate service?

A. No. The engineering assessment provided with the application states that "The overall assessment of the Wastewater Treatment Plant is good, the Pump Stations are in good to very good condition. With the improvements made with the CIPP lining projects, gravity sewers and force mains are in good condition" (Appendix A-15-a, pg. 1). Also, in response to OCA-II-6, Michael A. Leonard states:

> The Borough currently ensures high quality wastewater service to approximately 1,600 customers.

The engineer's assessment and the statement of Mr. Leonard indicate that the system has provided and can continue to provide adequate service to its customers, and with that, an acquisition by PAWC will only maintain existing high quality service.

Q. Please summarize your recommendation regarding PAWC's application under Section 1102 of the Public Utility Code.

A. The transaction proposed by the Applicant would create significant additional costs and presents significant risks to PAWC's existing water and wastewater ratepayers. As proposed, PAWC has not supported its claim that the acquisition will produce affirmative public benefits for its existing wastewater and water customers and the acquired Borough customers. I recommend that the Application be denied. PAWC's acquisition of the

Royersford system is not in the public interest for the following reasons, which I discuss in my testimony below:

1. The cost of PAWC ownership, including the proposed ratemaking rate base, is much higher than ownership by the Borough, unfairly burdening existing PAWC and Royersford ratepayers.
2. The elements of superior service suggested by PAWC to occur under its ownership are outweighed by the cost of PAWC ownership under the proposed 1329 ratemaking rate base.
3. The allocation of wastewater rate base to water customers under Section 1311(c) will create inefficiencies and inappropriately burden PAWC customers across the state.
4. The achievement of economies of scale are unsupported, and unlikely to be achieved to the benefit of current customers.

Cost of Ownership

Q. Please discuss your assertion that the cost of ownership of the Royersford system is greater under PAWC ownership than under Borough ownership, negatively affecting existing PAWC and Borough ratepayers.

A. On page 4 of his direct testimony, Mr. Nevirauskas states that:

> PAWC's strong operating and financial performance allows it to obtain competitive interest rates for long-term debt financing and access to equity investments from its parent company.

Appendix A-14-a, PAWC Statement No. 3, p. 17, lines 15-17. While this statement might be relevant in a direct comparison between other investor-owned utilities, the cost of capital of an investor-owned utility is higher than the cost of a municipal corporation. Investor-

owned utilities require a return on equity to ensure capital investment, which is not required for municipal corporations because they have no shareholders. Municipal corporations primarily finance their capital using debt financing, and this typically enables very low costs of capital for the municipality. The Borough has a long-term weighted average cost of debt of 2.042%.[4] In 2019, interest expense on long-term debt amounted to $49,957.

In comparison, PAWC has a cost of capital of 7.48% which includes a weighted average cost of debt of 2.038%.[5] PAWC is also subject to income taxes on equity returns, thus, the cost of capital is effectively 9.69%. When applied to the Section 1329 ratemaking rate base proposed by PAWC, the annual cost of return and income taxes alone under PAWC ownership is $1,260,343 ($13 million x 9.69%), more than 25 times the interest expense under Borough ownership.

The costs of operating the Royersford system under PAWC ownership will lead to rate increases for both PAWC and Borough ratepayers. As discussed below, the estimated rate increase for Royersford customers would be much larger if not for the allocation of revenue requirement to PAWC water customers and other PAWC wastewater customers, and this would unfairly burden the current PAWC water and wastewater ratepayers.

Under PAWC ownership in the long-term, Mr. Nevirauskas goes on to say:

> PAWC expects to propose to move the Borough's rates toward consolidated rates in future base rate cases.

[4] Interest on long term debt of $49,597 divided by long-term liabilities of $2,429,000 (2019 Financial Statement, Appendix A-19-a)

[5] PAWC's 2019 Annual Earnings Report. The cost of capital is based on PAWC's actual capital structure and the Commission authorized Return on Equity for DSIC purposes (M-2020-3021797)

Appendix A-14-a, PAWC Statement No. 3, p. 8, lines 6-7. This would subject the Borough customers to the cost of capital under PAWC, an investor-owned utility, which is much higher than the cost of capital under a municipal corporation, a benefit the Borough customers currently receive.

Q. What is the estimated total cost under PAWC ownership?

A. If the proposed rate base valuation of $13 million is approved, the revenue requirement of the rate base and operating expenses for the Royersford system will be approximately $2.06 million.[6] The required revenues are calculated as follows:

1. Return and taxes of $1.26 million
2. Depreciation expense of $398,000 (Appendix K of Application)
3. Operating expenses $373,000 (Appendix K of Application)

Q. What is the expected rate base per customer for the acquired Royersford customers, under PAWC ownership at the proposed ratemaking rate base?

A. Currently, the rate base per wastewater customer using traditional ratemaking in the Borough of Royersford is $2,805.[7] Under the acquisition, this rate base per acquired customer would increase to $8,025,[8] a 285%[9] increase.

[6] Data Request #1, pg. 4. This does not include any capital expenditures planned by PAWC following acquisition.
[7] $4,545,699 (Appendix A-19-a) divided by 1620 customers (Appendix A-17-a)
[8] $13 million dollar proposed Section 1329 rate base divided by 1620 customers. Mr. Nevirauskas calculates the same amount. Appendix A-14-a, PAWC Statement 3 at 7, lines 9-10
[9] $8,025 / $2,805 = 285%

Q. For comparison, what would be the cost of service under PAWC ownership using traditional ratemaking?

A. While the exact costs were not provided, I estimated the annual revenue requirement for the Royersford system under traditional ratemaking for PAWC ownership. My findings, which were sourced from PAWC's Application, indicate that the revenue requirement would be approximately $1.1 million. My calculation is as follows:

1. Return and taxes of $572,000[10]
2. Depreciation expense of $141,000[11]
3. Operating expenses of $373,000 (Appendix K)

This compares to the estimated $2.06 million cost of PAWC ownership using the proposed $13 million rate base valuation under Section 1329.

Q. Are the Borough's current revenues sufficient to offset the $2.06 million cost of PAWC ownership?

A. No. The return to PAWC shareholders and the subsequent taxes on those returns comprise most of the necessary increase in the revenue requirement. Under the Borough's ownership these costs do not exist.

The cost of PAWC ownership using the proposed $13 million rate base valuation is approximately $2.06 million. The PAWC projected Year-1 revenues totaled approximately $852,000 (Appendix K), a shortfall of more than $1.2 million dollars. Put

[10] Original cost less depreciation of $4.55 million (Appendix A-19-a), multiplied by PAWC's pre-tax cost of capital of 9.69%, plus other taxes.
[11] Estimated using the depreciation rate proposed by PAWC in the application (Appendix K) as ($398,000/13 million) x original cost less depreciation from above.

another way, the revenues generated by the Royersford system would need to increase by more than 241%[12] to fund the ratemaking rate base and other costs of PAWC ownership.

Q. Under the increase required to cover the revenue deficiency, what would be the change in the monthly rate to ratepayers?

A. Under the current rates set by the Borough, the average monthly bill for a residential customer using 3,630 gallons is approximately $30.[13] To cover the revenue deficiency of 241%, the rates of a typical residential ratepayer in the Royersford system would need to be increased to $72.30 per month ($30 x 2.41).

Rate Impact for Current Borough Customers

Q. Please summarize PAWC's testimony on the rate impacts of the acquisition of the Borough of Royersford wastewater system.

A. PAWC witness Mr. Salvo states that "PAWC has committed to implement, upon closing of the Transaction, Royersford's wastewater rates then in effect at closing, as set forth on Schedule 7.03(a) and not increase base rates until after the second anniversary of the closing date." Appendix A-14-a, PAWC Statement No. 1, p. 12. Mr. Salvo also references the testimony of Mr. Nevirauskas who on p. 15, line 21-22, of his testimony states "The APA provides that base rates shall not be increased until after the second anniversary of the Closing Date."

[12] 2.06 million / 852,000

[13] Appendix 18-b: $10 customer charge ($30 quarterly/3 months) + (3.63 thousand gallons x $5.615 per thousand gallons)

On page 16 of PAWC Statement No. 3, Mr. Nevirauskas says that "The Company does not anticipate that the Borough's rate will be held constant after the next base rate case and therefore the APA provision does not fall within the definition of a "rate stabilization plan" as defined by 66 Pa. C.S. § 1329." Mr. Nevirauskas also states:

> As PAWC customers, the cost of service to Borough customers can be allocated among a larger group of customers, thereby mitigating the per-customer impact of capital improvements and increases in operating costs.

Appendix A-14-a, PAWC Statement No. 3, p. 8.

Q. Please discuss Mr. Nevirauskas' claim that the "cost of service to Borough customers can be allocated among a larger group of customers, thereby mitigating the per-customer impact of capital improvements and increases in operating costs."

A. This statement may be accurate for future capital improvements, however, this does not include the $13 million acquisition purchase price and the proposed rate base is neither a capital improvement nor an increase in operating costs per customer as a result of service provided. It is important to note that Mr. Nevirauskas' claim is made under the assumption that costs will be shifted to PAWC water customers in a future rate case under Section 1311(c), including the revenue requirement derived from the proposed $13 million ratemaking rate base. That proposal is not before the Commission in this proceeding and it cannot be assumed that the Commission will adopt PAWC's proposed subsidization.

Q. Do you have a recommendation regarding your concern about the acquisition increasing per-customer costs?

A. Yes. With the increase in cost of ownership as a result of an approved acquisition, if the Commission approves the acquisition, it is imperative that PAWC provide a separate Cost of Service Study in the first base rate case which includes the Borough's assets, to ensure the Commission and parties have complete information about the cost of serving the Royersford customers.

1311(c) Revenue Allocation

Q. With an increase of that size, how will PAWC recover the costs resulting from the proposed Section 1329 rate base?

A. Mr. Nevirauskas in PAWC Statement No. 3 states, "Subject to Commission approval, PAWC anticipates allocating a portion of its wastewater revenue requirement to the combined water and wastewater customer base, as permitted by 66 Pa. C.S. § 1311(c)." Appendix A-14-a, PAWC Statement No. 3, p. 8, lines 8-10.

From a practical standpoint, this would mean that the revenue requirement unrecovered through current rates would be captured through an allocation of revenue requirement to PAWC water and wastewater customers. Essentially, the existing PAWC customers would pay for a large portion of the new required revenues under the proposed ratemaking rate base.

Rate Impact for Existing PAWC Customers

Q. What will be the rate impact if the existing PAWC customers are required to pay the entirety of the revenue shortfall resulting from approval of the $13 million Section 1329 ratemaking rate base?

A. As seen in the response to Data Request #1, pg. 3, the current bill for PAWC residential wastewater customers using 3,458 gallons per month is $71.97. If the $1.2 million shortfall that is expected to result from PAWC's acquisition of the Royersford system is recovered entirely from existing PAWC wastewater customers, those customers' monthly bills will increase by 3.4% to $74.40 (1.03385 x 71.97).[14]

Also seen in Data Request #1, pg. 3, the current bill for PAWC Zone 1 residential water customers using 3,458 gallons per month is $65.91. If the $1.2 million shortfall is recovered entirely from existing PAWC water customers, those customers' monthly bills will increase by 0.17% to $66.02 (1.0017 x 65.91).[15]

These increases would only recover the $1.2 million shortfall that would occur under the much costlier ownership of the Royersford system by PAWC, and do not reflect the additional costs of planned capital improvements in the Royersford water and/or wastewater systems. Appendix A-24-a, p. 16-17, ¶3.05 and Appendix A-14-a, PAWC Statement 1, p. 11, lines 17-20.

[14] Data from Data Request #1: $1,207,000 / $35,662,065 = 3.385%
[15] Data from Data Request #1: $1,207,000 / $708,199,052 = 0.170%

Economies of Scale

Q. What claim of economies of scale does PAWC make, regarding this application?

A. In response to OCA-II-17(a), PAWC witness Salvo states that:

> As I mentioned in my response to I&E Set I-7, it is impossible to calculate the impact of economies of scale with precision prior to the closing of the transaction. Through our continued due diligence and as we learn more about the system, we will identify areas of improvements, benefits and savings. Each system has its own unique challenges and circumstances. We discover and learn additional system details by managing and operating the system. Initially, during due diligence and usually within the first year of operation, we identify and eliminate duplicate services and processes. Other efficiencies are identified and developed over time once more information and experience operating the systems is obtained. We are constantly looking at our systems, seeking efficiencies and best operational practices as they evolve over time to provide the best level of service to our customers.

Q. Are economies of scale achieved from every increase in the number of customers?

A. No. Economies of scale are the advantages obtained through scale in operation, observed in decreasing cost per unit of output with the increasing scale.[16] Every increase in customers will not lead to cost benefits if the average cost of production does not decrease with the increase in customers.

Q. Are economies of scale achieved as a result of this transaction?

A. No. As seen above, the average rate base per acquired Royersford customer is $8,025. My calculation of PAWC's current average rate base per customer is approximately $6,600 (Exhibit NDE-1). The average rate base per customer of acquired Royersford customers is higher than that of PAWC's current customers. With that, I explained above that the revenues of Royersford customers are also not enough to cover the cost of service as a

[16] "Economies of scale." Oxford Reference; Accessed 16 Dec. 2020. https://www.oxfordreference.com/view/10.1093/oi/authority.20110803095741513.

result of PAWC's acquisition. If acquired customers are more expensive than the existing customers, and the acquired customers' revenues are not sizeable enough to recover their own costs of service, economies of scale are not achieved.

Conclusion

Q. Please provide a summary of your testimony regarding the claimed benefits in this proceeding.

A. Pennsylvania American Water makes many statements in support of the affirmative benefits of this acquisition, but many of these statements are vague and lack quantitative support. The proposed Section 1329 rate base of $13 million far exceeds the rate base estimated by traditional ratemaking for current Royersford ratepayers under Borough ownership. This addition to PAWC's rate base would increase rates by 241% if it is recovered solely from the Royersford ratepayers. The commitment to maintain current rates for the acquired customers until the second anniversary of the closing of the acquisition would delay but not permanently avoid the exorbitant increase that would result if rates for Royersford are set to recover their cost of service in a future case. If the $1.2 million shortfall between current Royersford rates and cost of service is paid instead by PAWC wastewater customers, rates for a typical residential wastewater customer would rise by 3.4%. Or if PAWC water customers' rates are increased to recover the full amount of the shortfall, rates for a typical residential water customers would increase by 0.17%.

For the reasons set forth throughout my testimony, I do not believe that the benefits are greater than the harms to both PAWC customers and the Borough of Royersford customers.

However, if the Commission approves the acquisition, the following conditions are required to ensure the existing customers are unharmed and the benefits received as a result of the acquisition are properly allocated to the Borough ratepayers:

1. No DSIC shall be implemented without an approved LTIIP that includes the acquired system and does not reprioritize any capital improvements that PAWC has already committed to undertake for existing customers.
2. AFUDC and deferred depreciation should be addressed in PAWC's *next* base rate case.
3. At the time of filing its next base rate case, PAWC should be required to submit a cost-of-service study that removes all costs and revenues associated with the operations of the Royersford wastewater system. PAWC shall also provide a separate cost of service study for the Borough of Royersford wastewater system at the time of the filing of PAWC's next base rate case.
4. The $9,957,330 rate base recommended by OCA Witness David Garrett should be the approved ratemaking rate base for the system post-acquisition.

Q. Does this conclude our direct testimony?

A. Yes. However, I reserve the right to modify or supplement my testimony if necessary.

OCA Exhibit NDE-1
Pennsylvania American Water Co.
Docket Nos. A-2020-3019634
Estimated of Rate Base
Data gathered from PAWC 2019 Annual Reports

PAWC Rate Base (water only)

Plant		$ 5,283	millions
Accumulated Depreciation		$ 1,050	millions
Rate Base	(1)	$ 4,233	millions
Number of Customers	(2)	665,695	customers
Rate Base per Customer		$ 6,358.77	

PAWC Rate Base (wastewater)

Plant		$ 1,119	millions
Accumulated Depreciation		$ 421	millions
Rate Base	(3)	$ 698	millions
Number of Customers	(4)	72,966	customers
Rate Base per Customer		$ 9,566.10	
All Rate Base per Customers:		$ 6,675.59	= (1+3) / (2+4)

APPENDIX A

QUALIFICATIONS OF

NOAH D. EASTMAN

Education

2019 B.S. Economics, Shippensburg University

Currently Pursuing: M.B.A., Shippensburg University

Positions

Jan. 2020 – Present Regulatory Analyst, Pennsylvania Office of Consumer Advocate

Experience

I am currently employed by the Pennsylvania Office of Attorney General, Office of Consumer Advocate (OCA) as a Regulatory Analyst. My responsibilities include financial and economic analysis, rate of return determination, and other business operations analysis in the review of utility filings with the Pennsylvania Public Utility Commission. Additional responsibilities with the OCA include formulating recommendations for utility filings and preparing testimony.

Relevant Training

IPU Accounting and Ratemaking Course, April 2020

IPU Intermediate Course, August 2020

Previous Cases wherein testimony was submitted

McCloskey v. Hidden Valley Utility Service - C-2014-2447138, C-2014-2447169

Previous cases worked; no testimony submitted

PaPUC v. Reynolds Disposal Company - R-2020-3019612

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough	:	Docket No. A-2020-3019634

VERIFICATION

I, Noah D. Eastman, hereby state that the facts set forth in my Direct Testimony, OCA Statement 2, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: December 22, 2020
*300720

Signature: _____
Noah D. Eastman

Consultant Address: Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923

OCA Statement 2S

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

In re: Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 129 of the Public Utility Code for Approval of its Acquisition of the Wastewater System of the Bureau of Royersford	Docket No. A-2020-3019634

SURREBUTTAL TESTIMONY

OF

MORGAN N. DEANGELO

ON BEHALF OF

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

Date: January 13, 2021

Introduction

Q. Please state your name, business address and occupation.

A. My name is Morgan N. DeAngelo. My business address is 555 Walnut Street, Forum Place, 5th Floor, Harrisburg, Pennsylvania 17101. I am currently employed as a Regulatory Analyst by the Pennsylvania Office of Consumer Advocate (OCA).

Q. Are you Noah D. Eastman who submitted direct testimony in this proceeding?

A. No, I am not. Noah D. Eastman is a Regulatory Analyst employed by the OCA, and did submit Statement No. 2 on behalf of the OCA on December 22, 2020. However, Mr. Eastman is unavailable now and in the foreseeable future due to an emergency situation.

Q. Do you accept Mr. Eastman's December 22, 2020 and do you adopt it as your own?

A. Yes. I have read and analyzed Mr. Eastman's testimony and I agree with it in its entirety. Additionally, I adopt his December 22, 2020 testimony as my own.

Q. Will you be submitting surrebuttal testimony in place of Mr. Eastman?

A. Yes, I will.

Q. What is the purpose of your surrebuttal testimony?

A. In my surrebuttal testimony, I will comment on the rebuttal testimony of the Borough of Royersford, Borough Manager, Michael A. Leonard and PAWC witnesses Michael Salvo, Michael Guntrum, and Rod Nevirauskas. I will address the Borough and PAWC's rebuttal testimony, specifically the portions which respond to Mr. Eastman's direct testimony.

Q. Please summarize Mr. Eastman's direct testimony in this proceeding.

A. As discussed on pages 3-16 of Mr. Eastman's direct testimony, the acquisition is likely to increase the wastewater rates of the Borough's existing ratepayers. The acquisition price and the proposed rate base would lead to a substantial increase in rate base per customer, requiring a higher revenue requirement. With that, the cost of ownership under PAWC is much higher than it would be with continued operation by the Borough of Royersford, also contributing to increased required revenues. The promises of economies of scale have not been quantified and what can be quantified is the increasing average rate base per customer as a result of this acquisition.

Borough of Royersford's Rebuttal Testimony

Q. Please discuss the Borough's rebuttal testimony responding to Mr. Eastman's direct testimony on this issue.

A. Mr. Leonard's rebuttal focuses on what he perceives to be the OCA's disregard of his claimed public benefits, stating on pages 2-3:

> Other than pointing out that the Borough offers an option for online bill payment and has customer service hours that are more limited than those that will be provided by PA American water, Mr. Eastman fails to address any of the significant public benefits I outline in my direct testimony. While it may be difficult to quantify precisely those benefits, they were important to the Borough in deciding to enter into the Proposed Transaction.

Mr. Leonard also states that, while the system is providing high quality service, the benefits proposed are to ensure the long-term financial fitness of the Borough. On page 3, Mr. Leonard states that the Borough's finances "need more stability" and that "[t]here is no assurance that we can keep up with the mounting capital needs of the System and ever-

increasing and stricter environmental regulations." Later, on page 4, Mr. Leonard goes on to say that "[s]imply because the Borough provides service of that quality right now does not mean that it is not justified in seeking to enter into the Proposed Transaction."

Finally, on page 4 of his rebuttal testimony, Mr. Leonard attempts to bring awareness to a likely significant increase in rates that would occur even under continued operation by the Borough of Royersford due to "aging infrastructure" and "environment compliance costs". Although he is using this to make a point that increased costs will occur under both continued ownership as well as PAWC ownership, he does not quantify or specify his point.

Q. Do you agree with Mr. Leonard's perception that the OCA has ignored his suggested affirmative public benefits of the transaction?

A. No, I disagree with his assessment. Mr. Leonard, on page 10 of Borough of Royersford Statement No. 1, proposed "three key benefits" of the acquisition to the Borough and the residents of Royersford:

> The sale will (1) improve the Borough's financial condition and outlook, (2) enable the Borough to reallocate its administration time to focus on other key initiatives of the Borough, and (3) provide for economies of scale given that PA American Water already provides water service to Borough Residents.

Under the proposed 1329 acquisition price, the resulting improvement to the financial condition of the Borough is not a matter of debate.

A main point in Mr. Leonard's testimony relies on the implication that economies of scale will provide a benefit to the Royersford Borough customers. Mr. Eastman's arguments in

OCA Statement No. 2, pgs. 15-16, fully demonstrate that economies of scale are not achieved in this acquisition. The Borough's arguments in response contained in Royersford's rebuttal testimony do not change this fact.

Q. Mr. Leonard states that continued ownership by the Borough would also lead to increased rates due to expected capital improvements for the system. Please respond.

A. I agree that continued ownership by the Borough would reasonably lead to increased rates due to future capital improvements for the system. This statement is true of any utility. As capital improvements are needed, rates often must increase to fund those capital improvements. Mr. Leonard's argument omits that a majority portion of the rate increase that Royersford ratepayers would see under the PAWC acquisition would not be from capital improvements, the increases would be a result of higher costs of ownership and the proposed 1329 ratemaking rate base being far greater than the rate base calculated using traditional ratemaking. As such, Mr. Leonard's statement that rates would increase under continued Borough ownership does not support a conclusion that ownership by PAWC is an affirmative public benefit (as opposed to continued Borough ownership). It should be further noted that the Borough did not provide information or projections regarding Borough rate increases and their necessity at this time.

PAWC's Rebuttal Testimony

Q. Does PAWC witness Michael Salvo contest portions of Mr. Eastman's direct testimony?

A. Yes, Mr. Salvo's rebuttal, like Mr. Leonard's rebuttal includes contentions such as the OCA disagrees with the law in 66 Pa. C.S. § 1329, refutes OCA's contention that rates will increase, refutes OCA's contention that under PAWC the cost of ownership is higher, further advocates for economies of scale and contends that the OCA has not fully considered the impact of this acquisition on all parties.

Q. Do you agree with Mr. Salvo's statement "No one can reasonably predict, at this time, the rate impact of the Transaction on Royersford's or PAWC's current customers…"?

A. No. Mr. Salvo's statement here is simply rebutted by the Company's own filing when PAWC provided notice to Royersford customers and PAWC existing customers of the projected impact of this acquisition. See Appx. A-18-d. Additionally, if Mr. Salvo's contention is true, OCA's assertion that the PAWC has not supported its claim that the acquisition will produce affirmative public benefits for its existing wastewater and water customers and the acquired Borough customers is affirmed.

Q. In his rebuttal testimony, Mr. Salvo states that the potential rate impacts of this transaction "should be given comparatively little weight because any adverse impact is so speculative."

A. While I am aware that there are numerous factors to be considered in this acquisition, it is unreasonable to give "comparatively little weight" to rate impacts.

First, the rate impacts directly impact the customers and are the main cost that must be weighed when deciding if a transaction provides a benefit. Second, many of the benefits proposed will not be realized in the short term, but instead could possibly occur in the long

and very-long term. However, the rate impacts resulting from the ratemaking rate base determined in this case will be realized in the next rate case when the Royersford system rate base is included in rates. As shown in my testimony below, the rates of a typical residential ratepayer in the Royersford system would more than double as a result of PAWC ownership.[1]

Q. Mr. Salvo states that Mr. Eastman indirectly suggested that "all utility systems should be owned by tax-exempt municipal entities rather than investor-owned utilities" and that Mr. Eastman's direct testimony reflects the OCA's "continuing opposition to fair market valuation acquisitions pursuant to Section 1329." Do you agree with his characterization of Mr. Eastman's testimony, which you adopted?

A. No, this statement is an overgeneralization of the points made in Mr. Eastman's testimony and is purely unsupported.

Q. Do you have anything further to add regarding Mr. Salvo's comments in this regard?

A. It is the OCA's position that the Commission should deny the application. This is not for the reasons stated by Mr. Salvo, but is because the benefits of the transaction do not outweigh the harms for both PAWC customers and the Borough of Royersford customers.

Q. In his rebuttal testimony, Mr. Guntrum states that PAWC has superior capabilities, and would better provide adequate and high quality wastewater service than Royersford. Do you agree?

[1] OCA Statement No. 1 at p. 11

A. No. Although PAWC may be able to do so, the Borough of Royersford is also capable of continuing to operate the system. As concluded in the Engineering Assessment of tangible assets on April 23, 2020, a majority of the system was upgraded in 2000, and the Wastewater Treatment Plant and Pump Stations are operating at good to very good conditions as is.[2]

Q. In his rebuttal testimony, Mr. Nevirauskas states the percentage increase should be calculated as the amount of the increase in dollars divided by the current Royersford revenues, rather than the entire revenue requirement divided by the revenues at present rates. Please respond.

A. If those numbers are used, the revenues generated by the Royersford system would need to increase by approximately 129% to cover the revenue requirement associated with the ratemaking rate base proposed by PAWC and to cover the additional costs associated with PAWC's ownership.[3] To cover the revenue deficiency, the rates of a typical residential ratepayer in the Royersford system would increase from $30[4] to $68.70 a month (($30 x 1.29) + $30), a significant 129% increase.

Q. Does this acquisition improve PAWC's economies of scale?

A. No, the Company does not quantify any cost reductions or efficiencies that will be produced by the Royersford acquisition. Generally for utilities, acquisitions increase economies of scale because fixed costs can be spread to more customers. However, at their

[2] Appendix A-15 pgs. 1 and 14.
[3] PAWC Exh. RPN-1 at 4; Appx. E. (1.10 million / 852,000).
[4] Appendix 18-b: $10 customer charge ($30 quarterly/3 months) + (3.63 thousand gallons x $5.615 per thousand gallons)

current rates, Royersford customers will not even be covering their full cost of service under PAWC ownership at the proposed $13 million rate base. Therefore, they cannot make any contribution to overall fixed costs.

Conclusion

Q. Did any of the arguments raised by PAWC or the Borough of Royersford in their rebuttal testimonies persuade you to change your opinions as stated in the direct testimony that you have adopted?

A. No. In addition, to the extent I do not address a particular statement or position raised in the rebuttal testimonies does not constitute my agreement with the same.

Q. Does this conclude your surrebuttal testimony at this time?

A. Yes, it does. I reserve the rights to modify or supplement my testimony if necessary.

Appendix A

QUALIFICATIONS OF
MORGAN N. DEANGELO

Education:

2020 M.B.A., Wilkes University

2018 B.B.A. Finance, Wilkes University

Positions:

June 2020 – Present	Regulatory Analyst, Pennsylvania Office of Consumer Advocate
2018 – 2020	Graduate Assistant, Office of Student Development, Wilkes University

Experience:

I am currently employed by the Pennsylvania Office of Attorney General, Office of Consumer Advocate (OCA) as a Regulatory Analyst. In this position, my responsibilities of reviewing utility company filings with the Pennsylvania Public Utility Commission (PA PUC) and analyzing the financial, economic, rate of return, and policy issues that are relevant to the filings. Additionally, I am tasked with preparing recommendations for the OCA's involvement in utility filings with the PA PUC, writing testimony and presenting oral testimony on behalf of the OCA.

Relevant Training:

IPU Accounting and Ratemaking Course, August 2020

Previous Cases where testimony was submitted:

P-2020-3020914	Twin Lakes Utilities, Inc.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Pennsylvania-American Water Company Pursuant to Sections 507, 1102 and 1329 of the Public Utility Code for Approval of its Acquisition of the Wastewater System Assets of Royersford Borough	:	Docket No. A-2020-3019634

VERIFICATION

I, Morgan N. DeAngelo, hereby state that the facts set forth in my Surrebuttal Testimony, OCA Statement 2-SR, are true and correct (or are true and correct to the best of my knowledge, information, and belief) and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

DATED: January 13, 2021
*302273

Signature: Morgan N. DeAngelo
Morgan N. DeAngelo

Consultant Address: Office of Consumer Advocate
555 Walnut Street
5th Floor, Forum Place
Harrisburg, PA 17101-1923